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Nuclear Fuel Cycle Requirements in WOCA

A Detailed Background Information to the OECD/NEA Second "Yellow Book"

P. Klumpp
Institut für Neutronenphysik und Reaktortechnik

Kernforschungszentrum Karlsruhe

KERNFORSCHUNGSZENTRUM KARLSRUHE

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A Detailed Background Information to the OECD/NEA Second "Yellow Book"

P. Klumpp

Kernforschungszentrum Karlsruhe GmbH, Karlsruhe

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Abstract

OECD/NEA will publish an updated version of its study
"Nuclear Fuel Cycle Requirements and
Supply Considerations, Through the Long-Term."
The Nuclear Research Centre Karlsruhe (KfK) was involved in the work necessary to provide this book. Although KfK had only responsiblility for part of the required computations it performed all the calculations for its own documentation interests. This documentation was felt to be a helpful background material for the reader of the second "Yellow Book". In this sense the original strategy computer outprints are published now without any discussion of assumptions and results.

Zusammenfassung

Bedarf an Kernmaterialien und Brennstoffkreislaufdiensten in WOCA
- Detailierte Hintergrundinformationen zur Neuauflage des gelben Buches der OECD/NEA

Die OECD/NEA wird eine Neuauflage ihrer Studie
"Nuclear Fuel Cycle Requirements and
Supply Considerations, Through the Long-Term"
veröffentlichen. An den Arbeiten hierzu war auch das Kernforschungszentrum Karlsruhe (KfK) beteiligt. Obgleich nur teilweise für die erforderlichen Berechnungen verantwortlich, wurden zur eigenen Dokumentation sämtliche Strategien durchgerechnet. Diese umfangreiche Informationssammlung kann eine hilfreiche Hintergrundinformation für den Leser der OECD/NEA Studie sein. In diesem Sinne werden hiermit alle vorliegenden original Computerausgaben ohne jede Annahmen- oder Ergebnisdiskussion veröffentlicht.

Acknowledgement

The analysis was performed in close cooperation and under guidance of P. Jansen (Technical University of Vienna). For assistance in preparing the reactor input data we express our thanks to Mr. M. Martensson (Studsvik Energiteknik AB, Sweden).

CONTENTS

I. Introduction

The Nuclear Energy Agency of the Organisation for Economic Cooperation and Development (OECD/NEA) will publish an updated version of its "Yellow Book", a report by the Working Party on Nuclear Fuel Cycle Requirements (WPNFCR).

The Nuclear Research Centre Karlsruhe (KfK) together with two other organisations, the United Kingdom Atomic Energy Authority (UKAEA) and Hanford Engineering Development Laboratory (HEDL), performed the required calculations for the second "Yellow Book".[1)] Though the different organisations took responsibility for different types of strategies in order to distribute efforts, KfK performed all the calculations for its own documentation interests. This documentation was felt to be of some help for the reader of the second "Yellow Book", as not all calculational details could be presented there. The purpose of this paper is therefore simply documentation and the reader is refered to the second "Yellow Book" for the discussion of assumptions or results.

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1) The computer codes used had been

NIMROD and SCENARIOS by UKAEA
TOPSY and SCENARIOS by HEDL
SOPKA by KfK.
SCENARIOS (the IAEA fuel cycle code used for the main INFCE strategy calculations) was chosen as the agreed form for transmission of results between organisations. SCENARIOS however is not able to couple the introduction rate of a reactor type to the fuel availability automatically. Therefore SCENARIOS must be supported by codes doing this, especially for strategies 2,3(LMFBR-Strategies) and 5.2.
SOPKA is a computer code at KfK which unifies both features. It was already used for the INFCE Working Group 5D calculations.

Various check calculations within the WPNFCR computation subgroup showed very good agreement between these different codes.

II. Nuclear Fuel Cycle Model

THE SOPKA CODE[1)]

SOPKA is a system optimization code (System Optimierungs Programm Karlsruhe) which has been developed primarily for the purpose of nuclear fuel cycles analyses. The structure of the code is however designed so as to allow the handling of much more general problems. Thus, in addition to the use for calculations in connection with the INFCE study, the code was recently used to simulate the FRG total energy flow and its interrelation with main economic parameters. In this case, the nuclear fuel cycle was dealt with only as a subsystem of a much more general energy system.

The basic idea of SOPKA is that the system to be investigated is described in terms of a variable number of subsystems or "technologies" with very general properties. Typical examples of "technologies" used for the description of a nuclear power system are the different types of nuclear reactors and the various types of fuel cycle facilities, e.g. enrichment and reprocessing plants. Each technology is, in turn, described in terms of a variable number of flow parameters which define the input and output of material and services to the subsystem. Thus, for a nuclear reactor the input normally includes the demand of natural uranium (or plutonium) and the requirements for separative work and fuel fabrication facilities, while the output may include the production of electricity, the generation of plutonium and the requirements for reprocessing

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1) SOPKA was developed by P. Jansen (Technical University Vienna) and P. Klumpp (Nuclear Research Centre Karlsruhe)

and waste storage. As the input and output flow parameters of the same kind which appear in different technologies are designated by common names, relations between the various technologies are automatically obtained. These relations are combined by the code to a linear equality (or inequality) system. In addition exogenous restrictions can be imposed for each type of relation and each technology. In case the so defined system still has free parameters, SOPKA can choose a solution according to some exogenously defined goal, e.g. the minimizing of the cumulative uranium consumption *).

The equation systems used in SOPKA are more complicated than may appear from the above description. Among the various means that are available to complete the system description the following features should be mentioned:

- for each flow parameter (in any of the technologies) not only the periodical input and output flows but also the inventory requirement (as well as the material recovery at the end of life of the technology) can be defined.

- for each input and output (flows and inventories) lead and lag times can be applied.

- each technology is characterized by a certain life time. When the life time has run out the corresponding inputs and outputs become inactive (while the remaining inventory is recovered).

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*) These solutions are obtained according to the theory of linear programming by means of the IBM MPSX/370 package.

- the annual and cumulative values of any relation can be restricted by upper and lower limits.

When used for nuclear fuel cycle calculations of the type required for the "Yellow Book", the "technologies" of the SOPKA code are in the first place represented by the different types of nuclear reactors. For each type of reactor the different types of material flows (e.g. natural uranium, plutonium or spent fuel) and fuel cycle services (e.g. demand of separative work and need of reprocessing or storage capacity) must be described by the annual demand, the annual discharge, the initial inventory and the end of life inventory together with their corresponding lead or lag times.

Some of the inherent features of the SOPKA code are directly applicable to the special cases appearing in this Yellow Book calculations. For example

- to couple the introduction rates of a certain reactor type (i.e. fast breeders) to the fuel availability in the system automatically

- to define the rate at which one type of reactor is substituted by another type (logistic substitution) by means of exogeneous restrictions

- to adapt a given reactor type to an improved fuel utilization (retrofitting).

III. Basic Assumptions in the OECD/NEA Nuclear Fuel Cycle Analysis

The assumptions used for these fuel cycle calculations are given in the second "Yellow Book". Some of the more important assumptions are summarized below.

III.1 Nuclear Power Growth Projections

Projections for installed nuclear capacity used in the second "Yellow Book" calculations are developed from different sources of data in accordance with the following procedures:

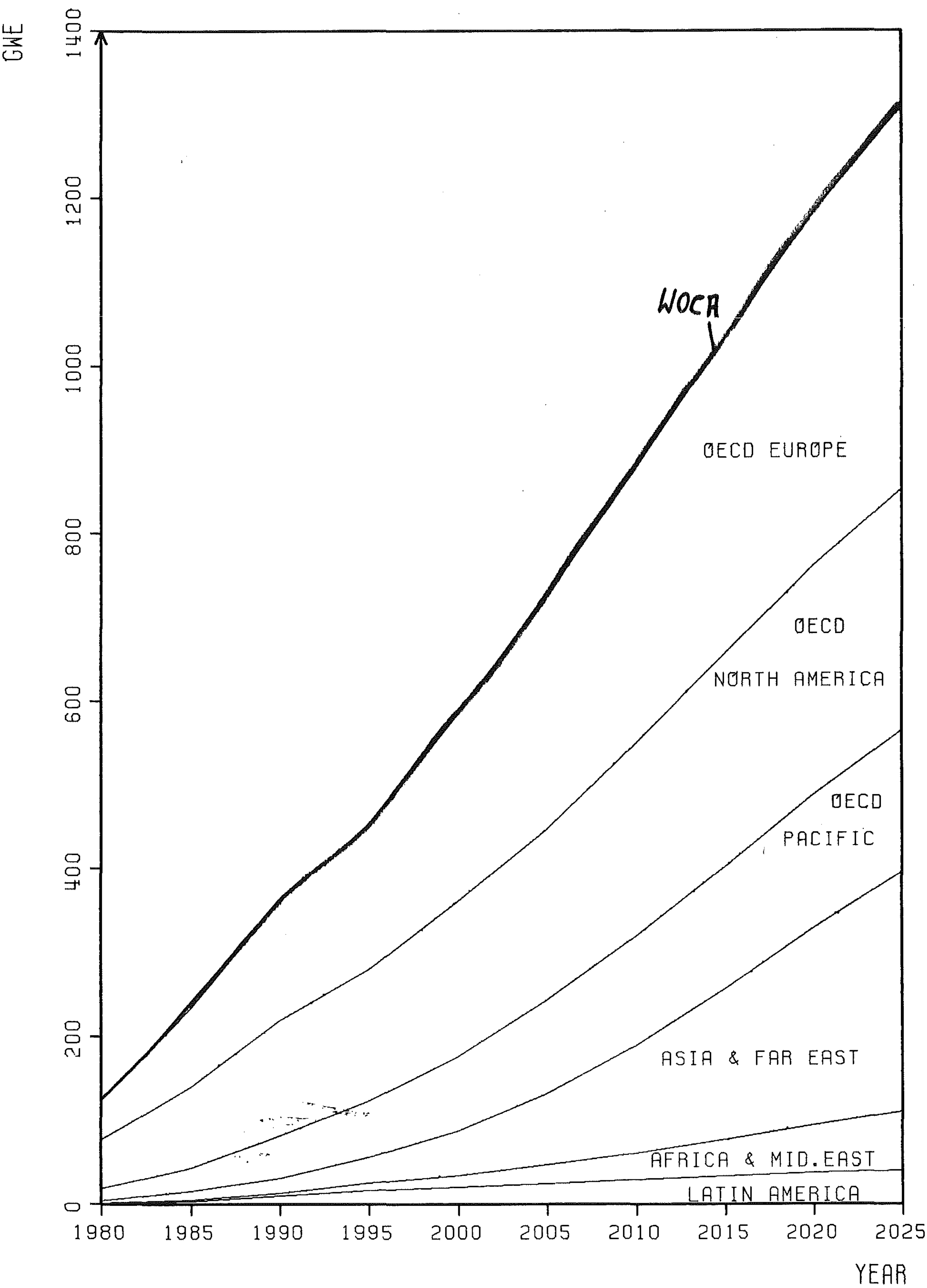
- The analysis was initialized in 1960.
  For the years 1960 through 1978, installed nuclear capacity data was obtained from the IAEA publication "Power Reactors in Member States - 1980 Edition", issued in June 1980.

- For the years 1979 through 1990 (in the region OECD-North-America through 2000), data for installed nuclear capacity was obtained from the WPNFCR questionnaire returns.

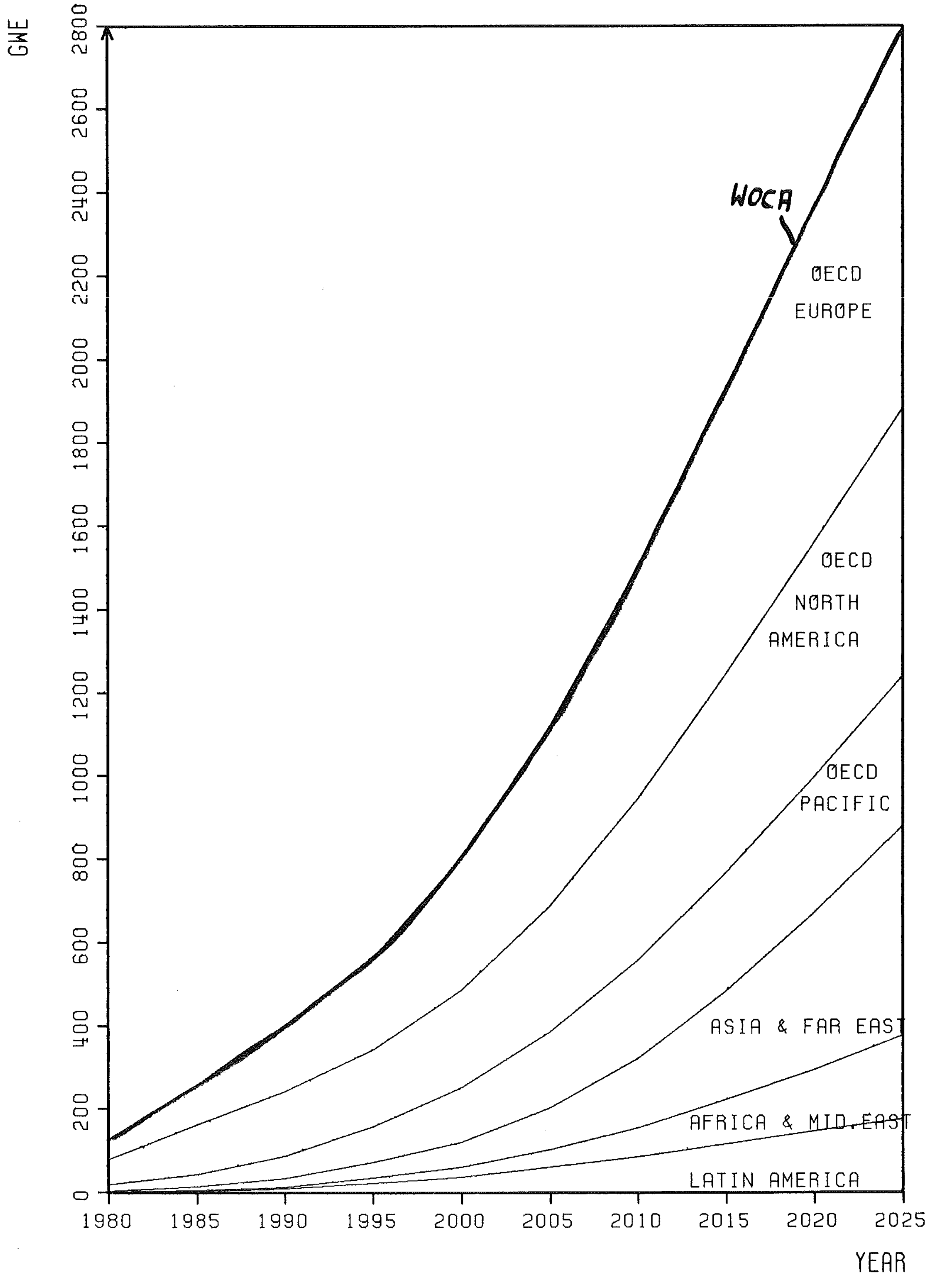
- From 1990 through 2025 (in the region OECD-North-America from 2000 through 2025) nuclear capacity data were obtained from high and low projections prepared by the WPNFCR.

- To eliminate some "end-of-period" effects the calculations were done up to 2030 based on linear extrapolation of the nuclear capacity additions from 2021.

The following figures show the resultary projections for the installed nuclear capacity in WOCA (World Outside Centrally Planned Economies Areas) and a country breakdown in regions.



INSTALLED NUCLEAR CAPACITY IN WØCA
(LØW PRØJECTIØN)



INSTALLED NUCLEAR CAPACITY IN WØCA
(HIGH PRØJECTIØN)

III.2 Reactor Distribution, illustrative Reactor and Fuel Cycle Strategies

In order to meet the nuclear power growth projections, developed in the previous chapter, the WPNFCR agreed for the pre-2000 period to keep the market share for different reactor types in accordance with the questionnaire responses. This leads to a reactor distribution at the end of 2000 as follows (in GWe):

OECD-Europe	Low	High
Gas-Graphite Reactors	2.7	2.7
Advanced Gascooled Reactors	7.3	7.3
Early Fast Breeders (oxide)	15.3	21.5
Lightwater Reactors	197.8	285.5

OECD-North-America		
HWR Nat. Uranium	25	35
Lightwater Reactors	160	200

OECD-Pacific		
Light Water Reactors	89	131

Developing Countries

Either only Lightwater Reactors or only Heavywater Reactors depending on the choosen long-term illustrative reactor strategy.

This reactor distributions in-being at the end of 2000 should serve as the starting point for the implementation of the long-term reactor strategies. Five fundamental types of illustrative reactor strategies had been selected for this reason. Each of them is characterized by a single reactor concept aiming at dominance in the nuclear market. These concepts are

1. Light Water Reactor (LWR) in the once-through mode of operation
2. Light Water Reactors with uranium-and plutonium recycle
3. Uranium- and plutonium-fuelled Fast Breeder Reactors (LMFBR)
4. Heavy Water Reactors (HWR) in the once-through mode of operation
5. Thorium strategies (High Temperature Reactor, HWR)

Most of these five single-type-dominated strategies have been investigated with current and improved technical variants. The following five chapters give a definition of these post-2000 reactor strategies.

III.2.1 Light-Water-Reactor Once-Through (Strategy 1)

Strategy No.	Strategy Name	Description
11	LWR-OT-Ref	All LWRs built in the period 1991-2000 will be of the 15% improved type; after 2000, improved technology LWRs are installed exclusively (additions and replacements); pre-1991 LWRs are retrofitted by 2001. There will be reprocessing to provide the plutonium used by the FBRs in the questionnaire returns *).
12	LWR-OT-S1	Same as LWR-OT-Ref without retrofitting of pre-1991 reactors.
13	LWR-OT-S2	Same as LWR-OT-Ref with 30% improvement instead of 15% starting in 2001 (30% improvement not retrofitted).
14	LWR-OT-S3	Same as LWR-OT-Ref with current technology LWRs.

*) The FBR fuel will be obtaind from thermal reactor fuel as per pre-assigned priorities.

Strategy No. 11 - LWR-OT-Ref

1980 1990 2000 2010 2020

LWR, HWR, GCR, AGR, FBR introduced in accordance with questionnaire

All existing LWR's incorporate 15% improvement

All new LWR's are 15% improved

All capacity additions and capacity replacements are 15% improved LWR's

Strategy No. 12 - LWR-OT-S1

1980 1990 2000 2010 2020

LWR, HWR, GCR, AGR, FBR introduced in accordance with questionnaire

~~All existing LWR's incorporate 15% improvement~~

All new LWR's are 15% improved

All capacity additions and capacity replacements are 15% improved LWR's

Strategy No. 13 - LWR-OT-S2

1980 1990 2000 2010 2020

LWR, HWR, GCR, AGR, FBR introduced in accordance with questionnaire

All existing LWR's incorporate 15% improvement

All new LWR's are 15% improved

All capacity additions and capacity replacements are 30% improved LWR's

Strategy No. 14 - LWR-OT-S3

1980 1990 2000 2010 2020

LWR, HWR, GCR, AGR, FBR introduced in accordance with questionnaire

~~All existing LWR's incorporate 15% improvement~~

~~All new LWR's are 15% improved~~

All capacity additions and capacity replacements are current technology LWR's

III.2.2 LWR with Plutonium/Uranium Recycle (Strategy 2)

This follows the same pattern as the LWR once-through reference strategy.

Strategy No.	Strategy Name	Description
21	LWR-Pu-Ref	The introduction of Pu-burning LWRs from 2001 is supposed to be limited by the Pu availability or by the condition that the fraction of Pu-Burners shall not exceed 12.5% of the total installed LWR capacity in the year 2005 and 25% in the year 2010 and in the long term. The Pu-burning LWR capacity may temporarily exceed this 25% fraction but is then held constant at that value which causes the plutonium stockpile to be consumed by 2030. The out-of-pile time for recycle material is two years.

Strategy No. 21 - LWR-Pu-Ref

980 | 1990 | 2000 | 2010 | 2020

LWR, HWR, GCR, AGR, FBR introduced in accordance with questionnaire

All existing LWR's incorporate 15% improvement

All new LWR's are 15% improved

Pu-burning LWR's are introduced such that they are limited either by the Pu availability or by the condition that the Pu-burning capacity fraction shall not exceed 12.5% in 2005 and 25% in 2010; from 2015 onwards the Pu-burning capacity is held constant at that value which causes the Pu stockpile to be consumed by 2030.

15% improved LWR captures remaining market

III.2.3 Uranium/Plutonium Fuelled LMFBR (Strategy 3)

Beginning in 2001, the LMFBR commissioning rate is determined by plutonium availability, the growth in nuclear power demand and an introduction rate obeying the substitution model in such a way that all new reactors (additions and capacity replacements) built in 2010 are LMFBRs. Other than LMFBRs, only LWRs of the current technology type using the once-through mode of operation are introduced post-2000. Reprocessing capacity is assumed not to be a constraint on LMFBR build-up.

Strategy No.	Strategy Name	Description
31	LMFBR-Ref	The post-2000 LMFBR additions are of the oxide-fuelled type. The out-of-pile time for recycle material (both plutonium and recycle uranium) is one year.
32	LMFBR-S1	Same as LMFBR-Ref with two year out-of-pile time.
33	LMFBR-S2	The post-2000 LMFBR additions are of the carbide-fuelled type. The out-of-pile time for recycle material (both plutonium and recycle uranium) is one year.

Strategy No. 31 - LMFBR-Ref

980 1990 2000 2010 2020

LWR, HWR, GCR, AGR, FBR introduced in accordance with questionnaire

FBR introduced on a S - curve

All capacity additions and capacity replacements are FBR's if sufficient plutonium is available

All new FBR's contain oxide fuel with a one year out-of-pile time

Current technology LWR's capture the remaining market

Strategy No. 32 - LMFBR-S1

980 1990 2000 2010 2020

LWR, HWR, GCR, AGR, FBR introduced in accordance with questionnaire

FBR introduced on a S - curve

All capacity additions and capacity replacements are FBR's if sufficient plutonium is available

All new FBR's contain oxide fuel with a two year out-of-pile time

Current technology LWR's capture the remaining market

Strategy No. 33 - LMFBR-S2

980 1990 2000 2010 2020

LWR, HWR, GCR, AGR, FBR introduced in accordance with questionnaire

FBR introduced on a S - curve

All capacity additions and capacity replacements are FBR's if sufficient plutonium is available

All new FBR's contain carbide fuel with a one year out-of-pile time

Current technology LWR's capture the remaining market

III.2.4 Heavy Water Reactor Once-Through (Strategy 4)

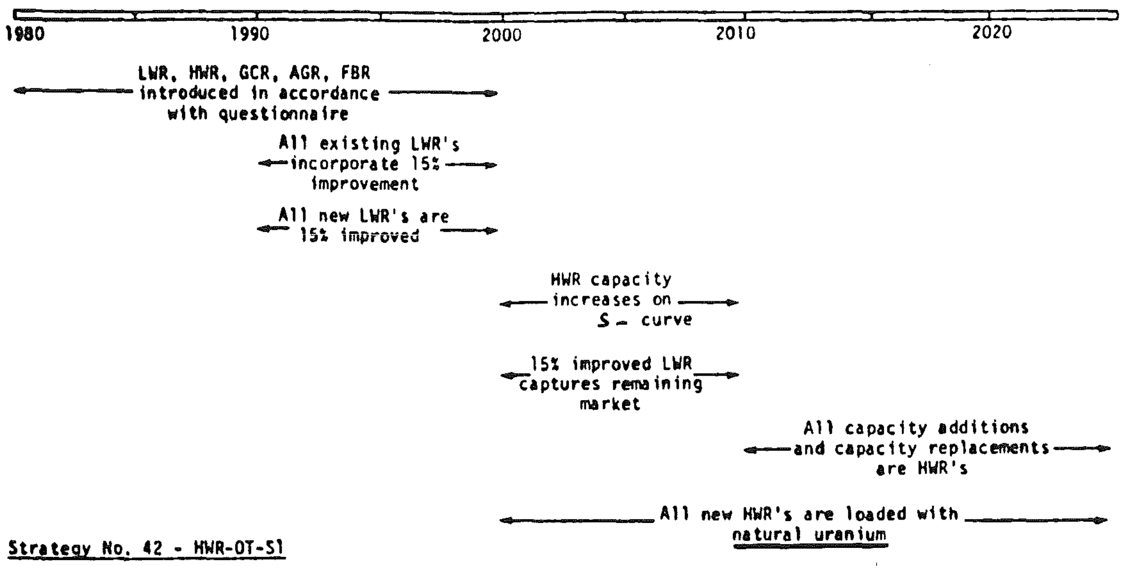
Pre-2001 HWRs operate on the natural uranium cycle (only OECD-North-America). Beginning in 2001, HWR capacity additions increase according to the substitution model in such a way that all new reactors (additions and capacity replacements) built in 2010 are HWRs.

Post-2000 non-HWR capacity additions are LWRs using the once-through mode of operation. All LWRs built in the period 1991-2010 are improved technology LWRs with 15% reduction in uranium demand: pre-1991 LWRs are retrofitted by 2001.

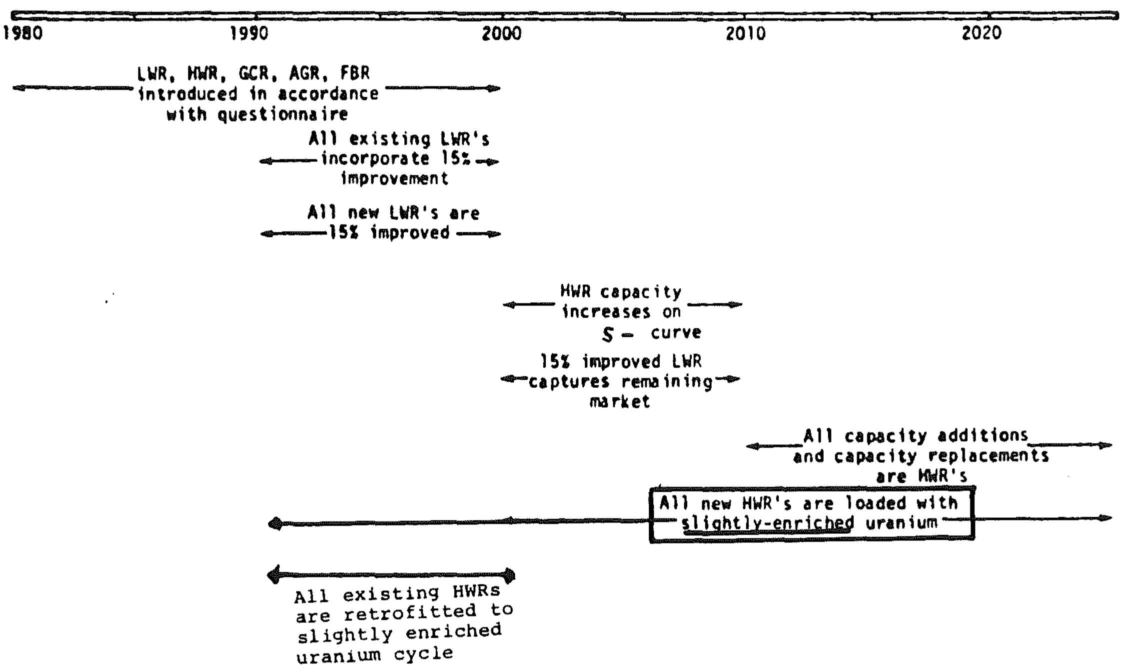
Reprocessing of thermal reactor fuel is allowed only as required for the FBRs in the questionnaire returns.

Strategies No.	Strategy Name	Description
41	HWR-OT-Ref	The HWRs use the natural uranium once-through mode of operation.
42	HWR-OT-S1	All HWR built after 1990 will use the slightly enriched uranium once through mode of operation. Pre 1991 natural uranium HWRs are retrofitted by 2001.

Strategy No. 41 - HWR-OT-Ref



Strategy No. 42 - HWR-OT-S1

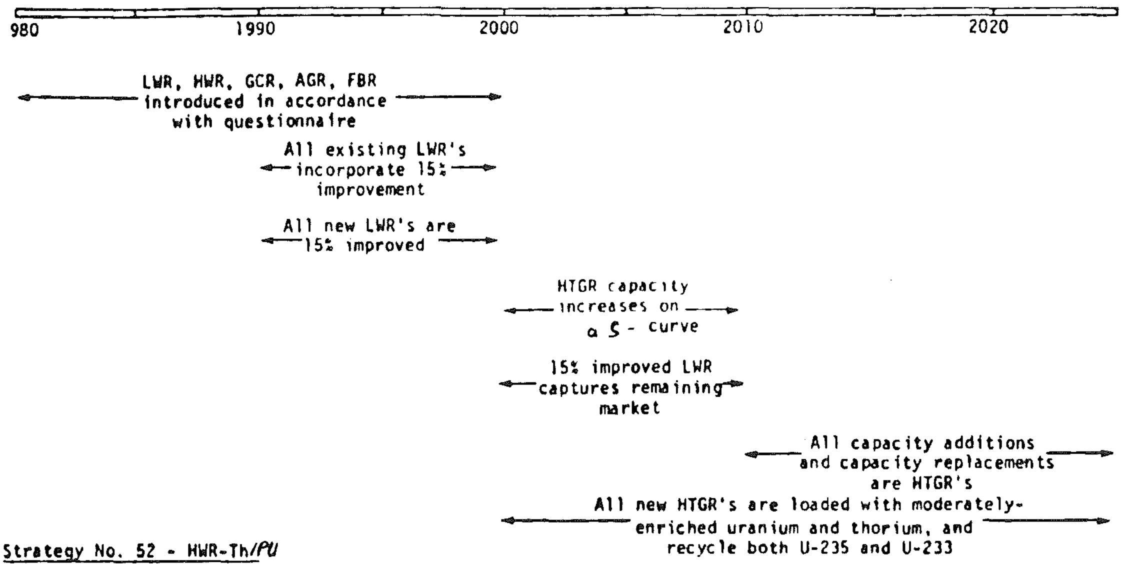


III.2.5 Thorium Fuel Cycle (Strategy 5)

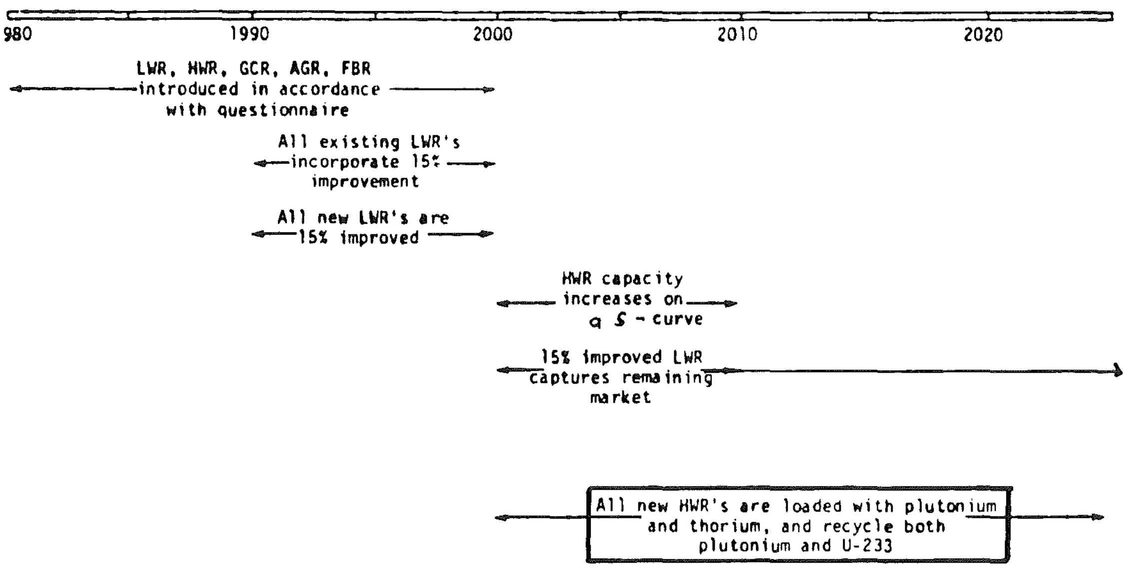
All LWRs built after 1990 are improved technology LWRs with 15% reduction in uranium demand; pre-1991 LWRs are retrofitted by 2001.

Strategy No.	Strategy Name	Description
51	HTGR-ThU	Beginning in 2001, HTGR capacity additions increase according to the substitution model (see page 28) in such a way that all new reactors (additions and capacity replacements) built in 2010 are HTGRs. Before that, non-HTGR capacity additions are LWRs using the once-through mode of operation. All LWRs built in the period 1991-2010 are improved technology LWRs with 15% reduction in uranium demand; pre-1991 LWRs are retrofitted by 2001. The HTGRs operate on the thorium/uranium fuel cycle using highly-enriched uranium as recycle and make-up. Reprocessing capacity is assumed to be available to support the HTGR fuel cycle. The out-of-pile time for recycle material is one year.
52	HWR-TH/PU	Beginning in 2001, HWR-TH/PU capacity additions increase according to the plutonium availability and/or the reactor system substitution model. Remaining necessary capacity additions are of the 15% improved LWR type using the once-through mode of operation. The whole plutonium stockpile is consumed by 2030. The out-of-pile time for recycle material is one year.

Strategy No. 51 - HTGR-ThU



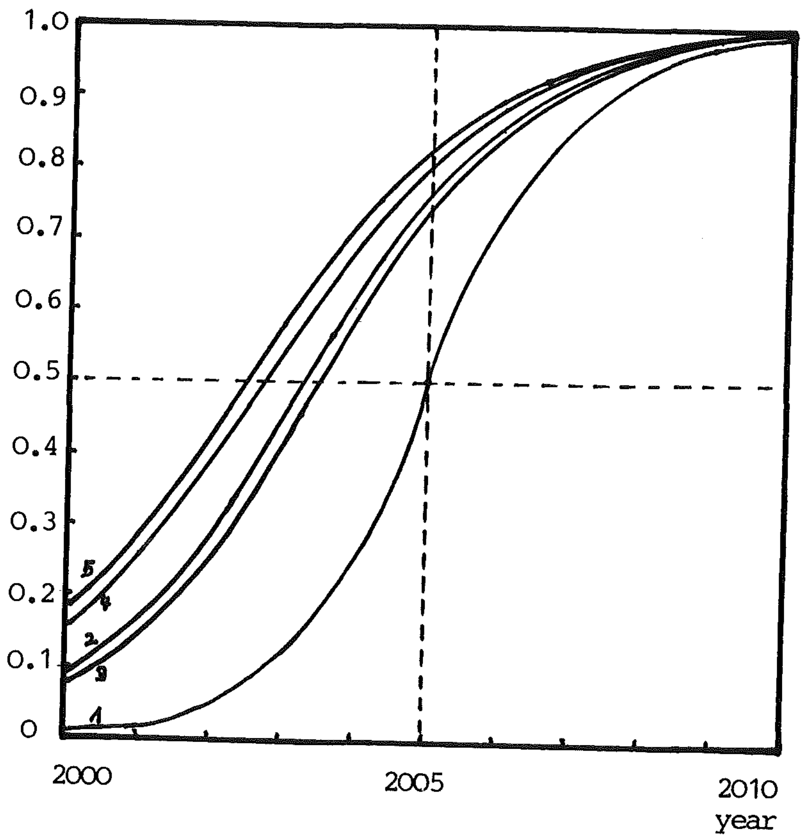
Strategy No. 52 - HWR-Th/PU



III.2.6 Additional Assumptions

In addition to the assumptions inherently made by defining illustrative reactor strategies the following calculation arrangements are of some major influence on the obtained results:

1. Introduction of new reactor system according to a S-shaped curve of market penetration over a ten years period. Thus the market penetration rates of advanced reactor systems vary from zero in 2000 (or greater than zero if the advanced system is available to some extend in the pre-2000 period) to 100 percent in 2010.



Logistic curves of market penetration

Market penetration rates in

1 Strategies other than LMFBR (OECD-Europe) and HWR (OECD-North-America)
2 LMFBR strategy OECD-Europe low projection
3 LMFBR strategy OECD-Europe high projection
4 HWR strategies OECD-North-America low projection
5 HWR strategies OECD-North-America high projection

2. The market penetration rates given above are the maximal possible ones within this ten years time period. In some cases this constraint might therefore be of secondary priority because sometimes the regional availability of fissile material is limiting.

3. In the case of LMFBR-strategies the breeding ratio of the LMFBRs is reduced if LMFBRs would otherwise increase the plutonium stock in the long term.

4. The cumulative numbers in the NEA-report are calculated since 1980 while the cumulation in the SOPKA-outprints starts in 1960. The differences are negligable but a simple subtraction makes both results comparable.

III.3 Reactor Fuelling Characteristics and Fuel Cycle Parameters

The WPNFCR agreed that the reactor characteristics data and fuel cycle parameters to be used in its calculations for the second "Yellow Book" would be those used in INFCE computations.

The most important data for computing fuel cycle requirements are the initial and annual mass flows of the various reactor typs, especially timing, amounts and compositions of charges and discharges. A summary of these reactor fuelling characteristics on basis of a 100% load factor is given in tables 1 and 2. All calculations, however, have been performed on the basis of a 70% load factor.

In addition to the typical reactor mass flow characteristics shown in tables 1 and 2 the following assumptions are of some major influence on the calculation of fuel cycle requirements:

. The calculation of fuel cycle demands and fuel cycle service requirements for current LWR plants is based on an assumed PWR/BWR mix of 2/1. Thus, each 1000 MWe of current LWR capacity is assumed to be made up to 670 MWe of PWR capacity plus 330 MWe of BWR capacity; however, all calculations made with advanced LWR-technology are based on only PWRs.

. Beside the equilibrium cycle charge and discharge data of tables 2 and 3 also the non-equilibrium cycle data was taken into account if available in document FCRDOC(80)52.

. A 30 year reactor lifetime was used for all reactor types.

. An enrichment plant tails assay of 0.20% is assumed.

Table 1. Reactor Fuelling Characteristics (on basis of 100 % load factor)[1)]

	LWR					CANDU-HWR			Pebble-Bed HTR	
	Unimproved BWR	Unimproved PWR	15%Improved PWR	30%Improved PWR	LWR-Pu-Burner	Nat.Uranium	Slightly Enriched Uranium	Pu/Th Cycle		
Conversion Ratio	-	-	0.56	-	0.71	-	-	-	0.74	
Doubling Time, years	-	-	-	-	-	-	-	-	-	
<u>Initial Loading</u>										
Uranium heavy metal (t/GWe)	129.0	79.06	78.20	78.20	76.63	130.0	130.0	-	2.051	
Average enrichment in U-235 (wt %)	2.07	2.14	2.22	2.43	Depleted	0.71	1.20	-	93.0	
Fissile plutonium (t/GWe)	-	-	-	-	2.147	-	-	3.036	-	
Thorium (t/GWe)	-	-	-	-	-	-	-	115.44	47.1	
<u>Equilibrium Cycle Charge</u>									(a)	(b)
Uranium heavy metal (t/GWe.a)	40.31	35.13	21.58	18.00	31.56	171.0	59.80	1.05	0.586	0.273
Average enrichment in U-235 (wt %)	2.60	3.00	4.15	4.00	Depleted	0.71	1.20	5.18	-	93.0
U-233 (t/GWe.a)	-	-	-	-	-	-	-	0.62	0.386	-
Fissile plutonium (t/GWe.a)	-	-	-	-	1.337	-	-	0.233	-	-
Thorium (t/GWe.a)	-	-	-	-	-	-	-	40.21	10.12	
<u>Equilibrium Cycle</u>										
Uranium heavy metal (t/GWe.a)	38.75	33.69	20.04	16.54	30.83	170.0	58.10	1.07	0.588	
Average enrichment in U-235 (wt %)	0.75	0.83	0.72	0.44	Depleted	0.23	0.10	5.46	-	
U-233 (t/GWe.a)	-	-	-	-	-	-	-	0.624	0.351	
Fissile plutonium (t/GWe.a)	0.248	0.220	0.165	0.131	0.861	0.470	0.20	0.025	-	
Thorium (t/GWe.a)	-	-	-	-	-	-	-	39.13	9.48	
Average burn-up (GWd/t)	27.5	30.4	50.7	60.8	33.0	7.3	20.9	30.1	80.0	
<u>Final Discharge</u>										
Uranium heavy metal (t/GWe)	125.3	76.7	77.34	76.92	75.75	129.0	128.0	2.31	3.951	
Average enrichment in U-235 (wt %)	1.28	1.37	1.83	1.52	Depleted	0.39	0.39	7.32	-	
U-233 (t/GWe)	-	-	-	-	-	-	-	1.810	2.395	
Fissile plutonium (t/GWe)	0.645	0.418	0.502	0.502	1.950	0.270	0.390	0.374	-	
Thorium (t/GWe)	-	-	-	-	-	-	-	115.03	51.03	

Note:
(a) Recycle fuel
(b) Fresh make-up fuel
(1) from second "Yellow Book"

Table 2. Reactor Fuelling Characteristics (on basis of a 100 % load factor)[1)]

	LMFBR			GG	AGR	AGR
	Pre-2000 FBR-Oxide	Post-2000 FBR-Oxide	FBR-Carbide	GG	AGR (INFCE)	AGR (updated)
Conversion Ratio	-	1.33	1.48	0.86	0.44	
Doubling Time, years	-	17.4(c)	10.2(c)	-	-	
Initial Loading						
Uranium heavy metal (t/GWe)	65.0	87.4	92.3	900.0	155.0	167.6
Average enrichment in U-235 (wt %)	Depleted	Depleted	Depleted	0.71	1.73	1.64
Fissile plutonium (t/GWe)	2.690	3.142	2.602	-	-	-
Thorium (t/GWe)	-	-	-	-	-	-
Equilibrium Cycle Charge						
Uranium heavy metal (t/GWe.a)	35.1	40.3	42.2	300.0	46.0	50.3
Average enrichment in U-245 (wt %)	Depleted	Depleted	Depleted	0.71	2.29	2.32
U-233 (/GWe.a)	-	-	-	-	-	-
Fissile plutonium (t/GWe.a)	1.907	2.095	1.734	-	-	-
Thorium (t/GWe.a)	-	-	-	-	-	-
Equilibrium Cycle Discharge						
Uranium heavy metal (t/GWe.a)	33.9	38.8	40.5	298.0	45.0	49.1
Average enrichment in U-235 (wt %)	Depleted	Depleted	Depleted	0.40	0.76	0.85
U-233 (t/GWe.a)	-	-	-	-	-	-
Fissile plutonium (t/GWe.a)	2.095	2.460	2.240	0.600	0.220	0.152
Thorium (t/GWe.a)	-	-	-	-	-	-
Average burn-up (GWd/t)	-	52.3(d)	53.1(d)	4.5	18.0	18.0
Final Discharge						
Uranium heavy metal (t/GWe)	64.5	85.5	90.2	898.0	154.0	183.0
Average enrichment in U-235 (wt %)	Depleted	Depleted	Depleted	0.50	1.25	1.5
U-233 (t/GWe)	-	-	-	-	-	-
Fissile plutonium (t/GWe)	3.120	3.700	3.357	1.800	1.00	0.399
Thorium (t/GWe)	-	-	-	-	-	

Note: Concerning the AGR, the INFCE characteristics were used in the calculation: updated characteristics were made available by the UK

(c) Compound System Doubling Time; calculated with 1-year out-of-pile time, 75% load factor, and 98% reprocessing/fabrication efficienc

(d) Core region average

(1) from second "Yellow Book"

- The mass flow required to operate a reactor are coupled to certain lead and lagtimes (see second "Yellow Book")

- The mass flows are calculated regarding the material losses as stated in the second "Yellow Book".

III.4 Reprocessing Philosophy

In the post-2000 period, all chosen illustrative strategies (except LWR and HWR once-through) require spent fuel reprocessing and recycle. However, spent fuel reprocessing and recycle is required pre-2000 and in once-through strategies too, in order to support the pre-2000 LMFBRs given in the questionnaire replies of some European countries.

With respect to the reprocessing model the attached SOPKA results are calculated under the following assumptions:

1. Spent fuel will be reprocessed only as required for use in breeder reactors or other reactors fuelled with plutonium or uranium 233. However, spent fuel may be reprocessed prior to the time fissile plutonium is required in order to avoid sharp peaks in reprocessing requirements. For this reprocessing procedure the following priority is given:

   1. Spent fuel from gas-graphite reactors[1)]
   2. Spent fuel from advanced gas reactors.
   3. Spent fuel from plutonium fuelled reactors such as fast breeders or plutonium recycle LWR
   4. Spent fuel from light water reactors
   5. Spent fuel from heavy water reactors.

   When reprocessing fuel of such a single reactor type, longest cooled spent fuel will be recycled first.

2. Reprocessing capacity is assumed to be available as needed. There are no plant capacity restrictions.

---

1) In contrary to our assumption, in the second "Yellow Book" this type of reactor fuel is reprocessed any time immediately after its cooled, whether it is needed or not.

3. Uranium from spent natural fuel is not recycled.

4. There is no transfer of spent fuel allowed between regions.

5. In all strategies involving uranium recycle two sets of annual and cumulative requirements will be reported
   a) no uranium credit is received from reprocessed spent fuel
   b) 100% uranium credit is received from reprocessed spent fuel

In the case of cumulative committed uranium lifetime requirements paragraph 5b) is replaced by

   c) 100% uranium credit if all discharged spent fuel would be reprocessed.

IV. Results of the Strategy Calculations

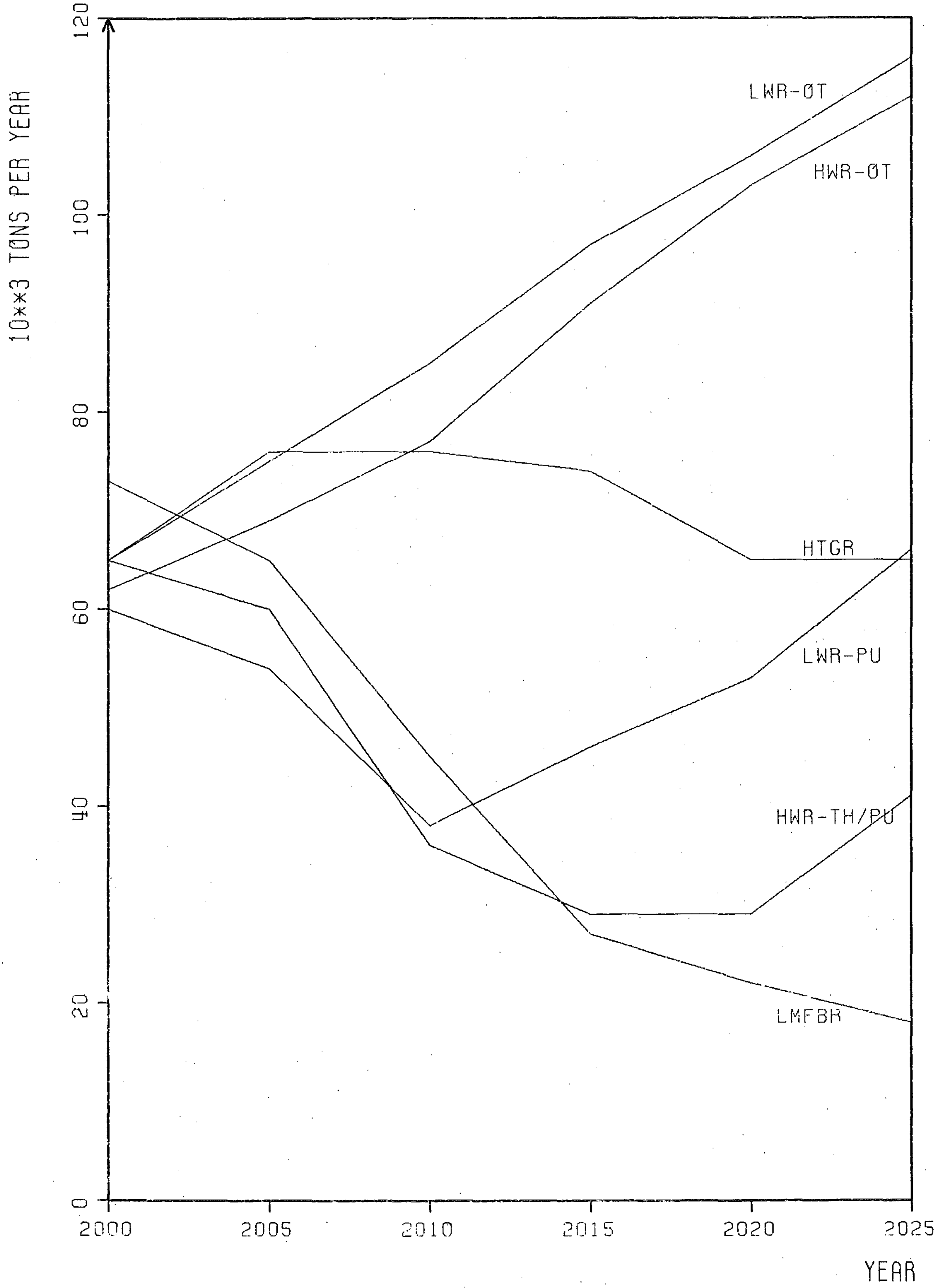
IV.1 A few Summary Results for the OECD Countries

Table 3 and the following four figures give in short a static (in the year 2025) as well as a dynamic (for the period from 2000 through 2025) overview of the resulting situation in example for the natural uranium requirements.

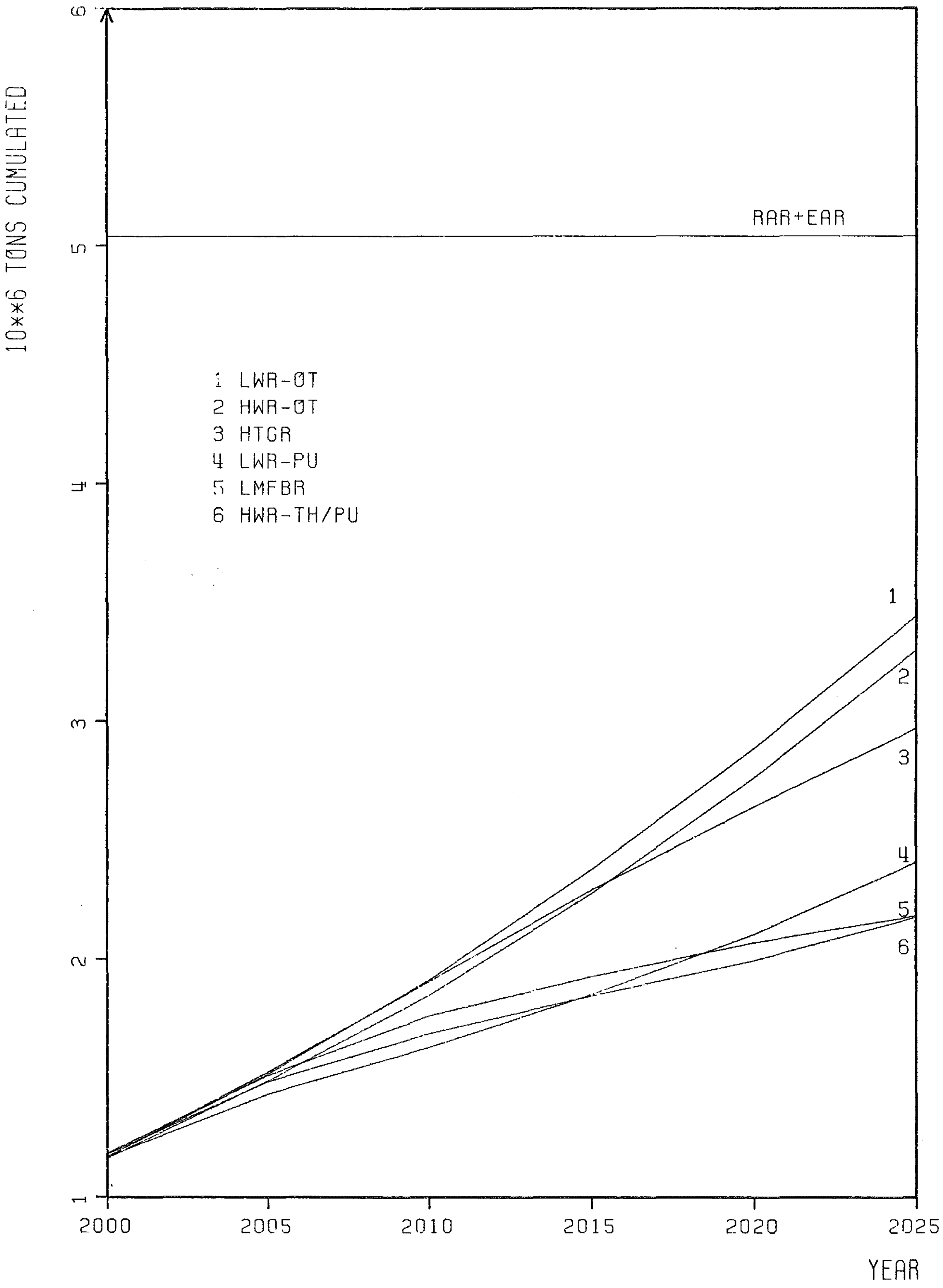
Table 3. Natural Uranium Requirements for OECD Countries

Strategies: No Sign Explanation	Case	annual in 2025 (10^3t) low	annual in 2025 (10^3t) high	cumulated 1960 up to 2025 (10^6t) low	cumulated 1960 up to 2025 (10^6t) high	cum. committed 1960 up to 2025 (10^6t) low	cum. committed 1960 up to 2025 (10^6t) high
1. LWR-Once Through							
11 REF (15 % impr.)	a	117	251	3.54	5.87	4.92	8.98
12 S1 (15 % retrof.)	a	117	251	3.57	5.91	4.54	9.12
13 S2 (30 % improved)	a	99	213	3.32	5.42	4.41	7.89
14 S3 (current techn.)	a	135	289	3.89	6.55	5.58	10.24
2. LWR-PU-Recycle	a	82	191	2.84	4.79	3.81	7.23
	b	66	166	2.41	4.16	3.13	5.95
	c					3.13	5.95
3. LMFBR							
31 REF (oxide, 1a)	a	25	51	2.52	3.69	2.64	3.97
	b	18	36	2.18	3.00	1.96	3.03
	c					1.79	2.68
32 S1 (oxide, 2a)	a	32	109	2.58	4.27	2.83	5.27
	b	22	82	2.13	3.48	2.13	4.27
	c					1.92	3.54
33 S2 (carbide, 1a)	a	25	49	2.52	3.67	2.64	3.92
	b	22	43	2.30	3.27	1.96	2.89
	c					1.79	2.65
4. HWR-OT U-Cycle							
41 REF (nat. uran)	a	112	239	3.39	5.55	4.91	8.96
42 S1 (enriched)	a	91	194	3.22	5.20	4.25	7.45
5. Thorium Cycle							
5.1 HTGR (HEU)	a	67	144	3.07	4.90	3.46	5.82
	b	65	142	2.97	4.77	3.12	5.01
	c					2.77	4.64
5.2 HWR-TH/PU	a	59	163	2.61	4.33	3.10	6.36
	b	41	145	2.18	3.73	2.54	5.24
	c					2.54	5.24

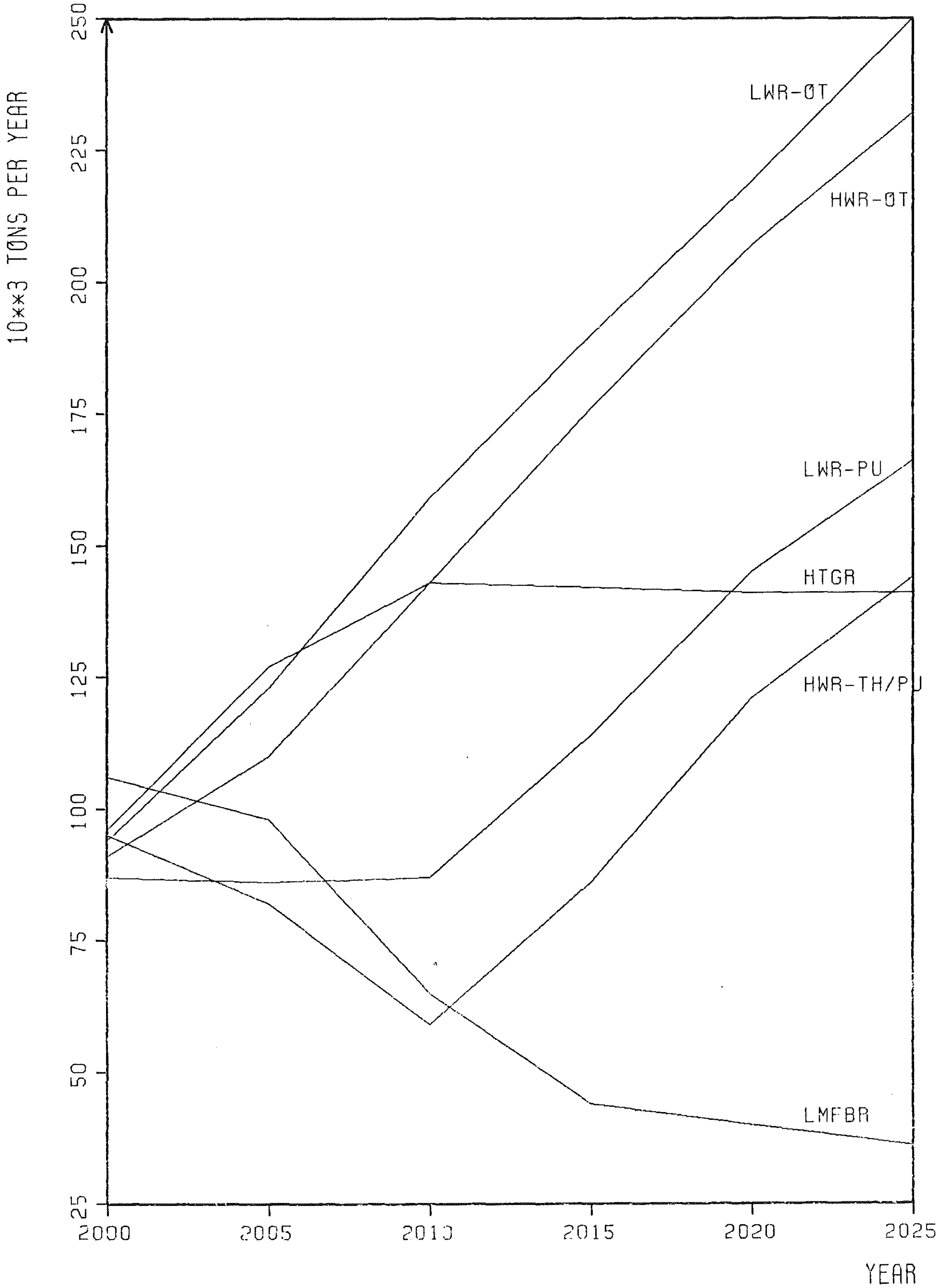
Note Case a: without U 235 - credit from reprocessed spent fuel
Case b: with 100 % U 235 - credit from reprocessed spent fuel
Case c: with 100 % U235 - credit if all discharged spent fuel would be reprocessed



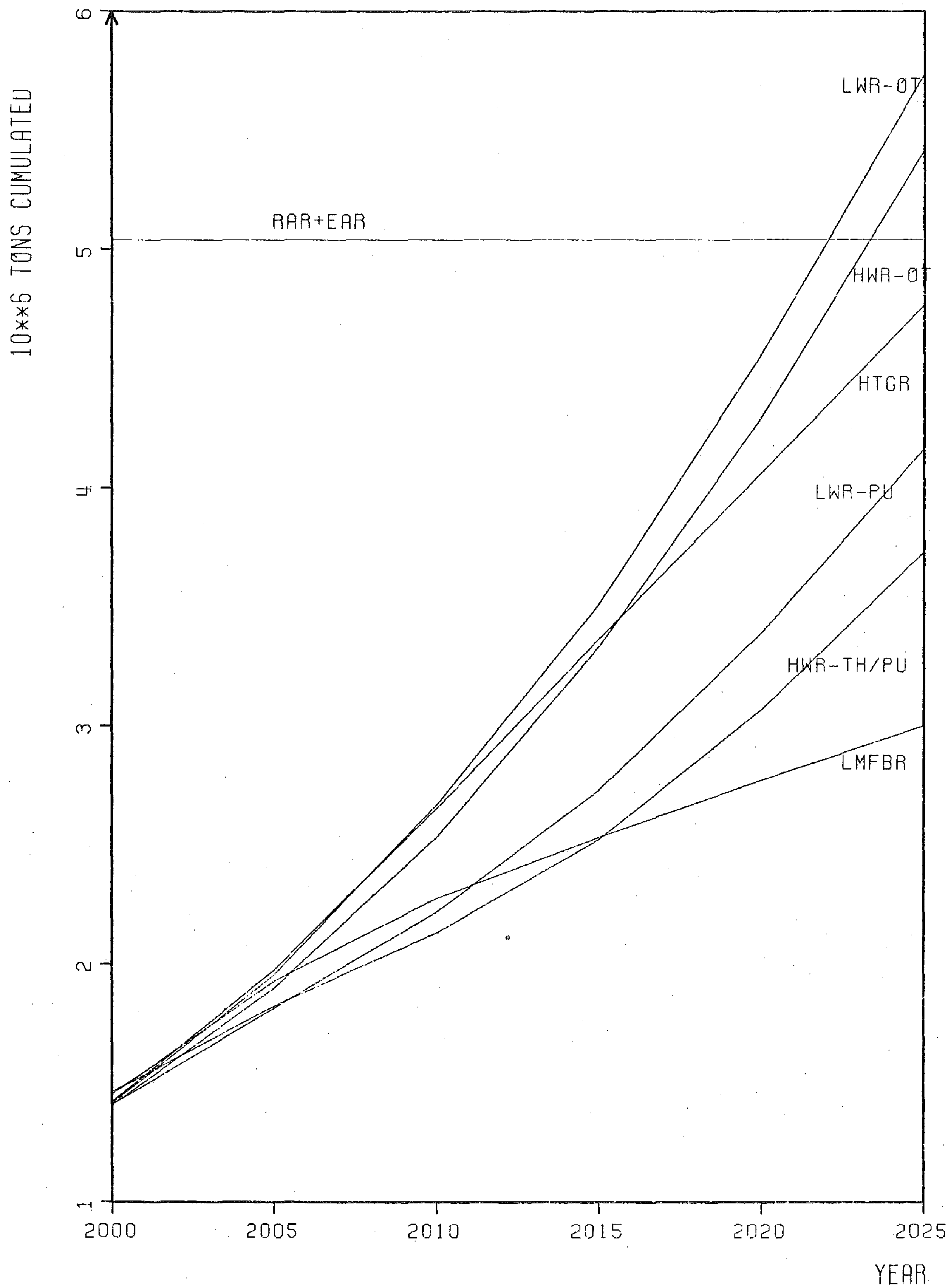
ANNUAL NATURAL URANIUM DEMAND FØR OECD CØUNTRIES
IN THE REFERENCE STRATEGIES (LØW CASE)
(100 % U235 CREDIT ASSUMED FRØM REPRØCESSED SPENT FUEL)



CUMUL. NATURAL URANIUM DEMAND FOR OECD COUNTRIES
IN THE REFERENCE STRATEGIES (LOW CASE)
(100 % U235 CREDIT ASSUMED FROM REPROCESSED SPENT FUEL)



ANNUAL NATURAL URANIUM DEMAND FØR ØECD COUNTRIES
IN THE REFERENCE STRATEGIES (HIGH CASE)
(100 % U235 CREDIT ASSUMED FRØM REPRØCESSED SPENT FUEL)



CUMUL. NATURAL URANIUM DEMAND FOR OECD COUNTRIES
IN THE REFERENCE STRATEGIES (HIGH CASE)
(100 % U235 CREDIT ASSUMED FROM REPROCESSED SPENT FUEL)

IV.2 A few Summary Results for WOCA

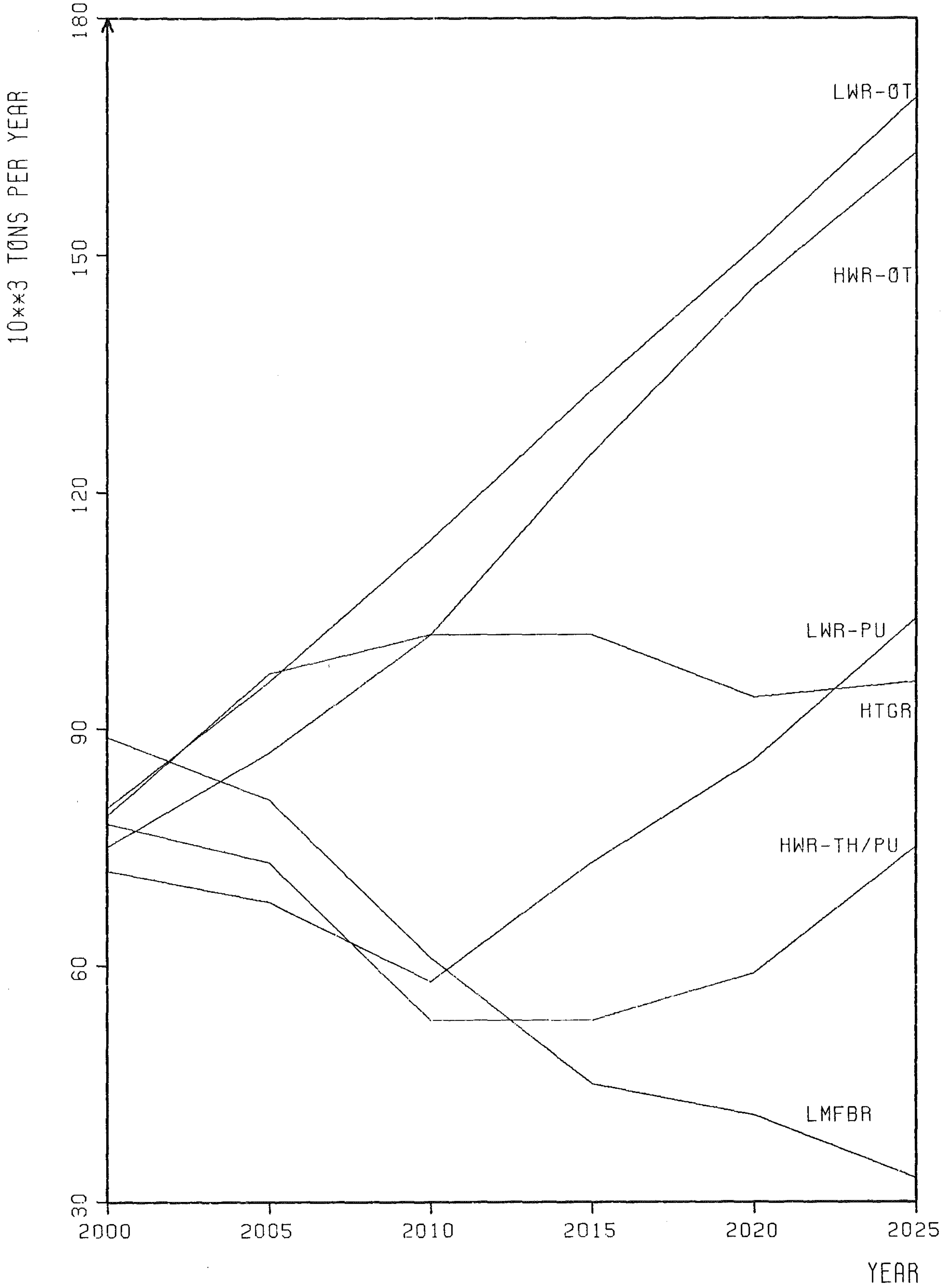
Table 4 and the four additional figures give a similar static and dynamic overview for the natural uranium requirements in WOCA.

Table 4. Natural Uranium Requirements for WOCA*

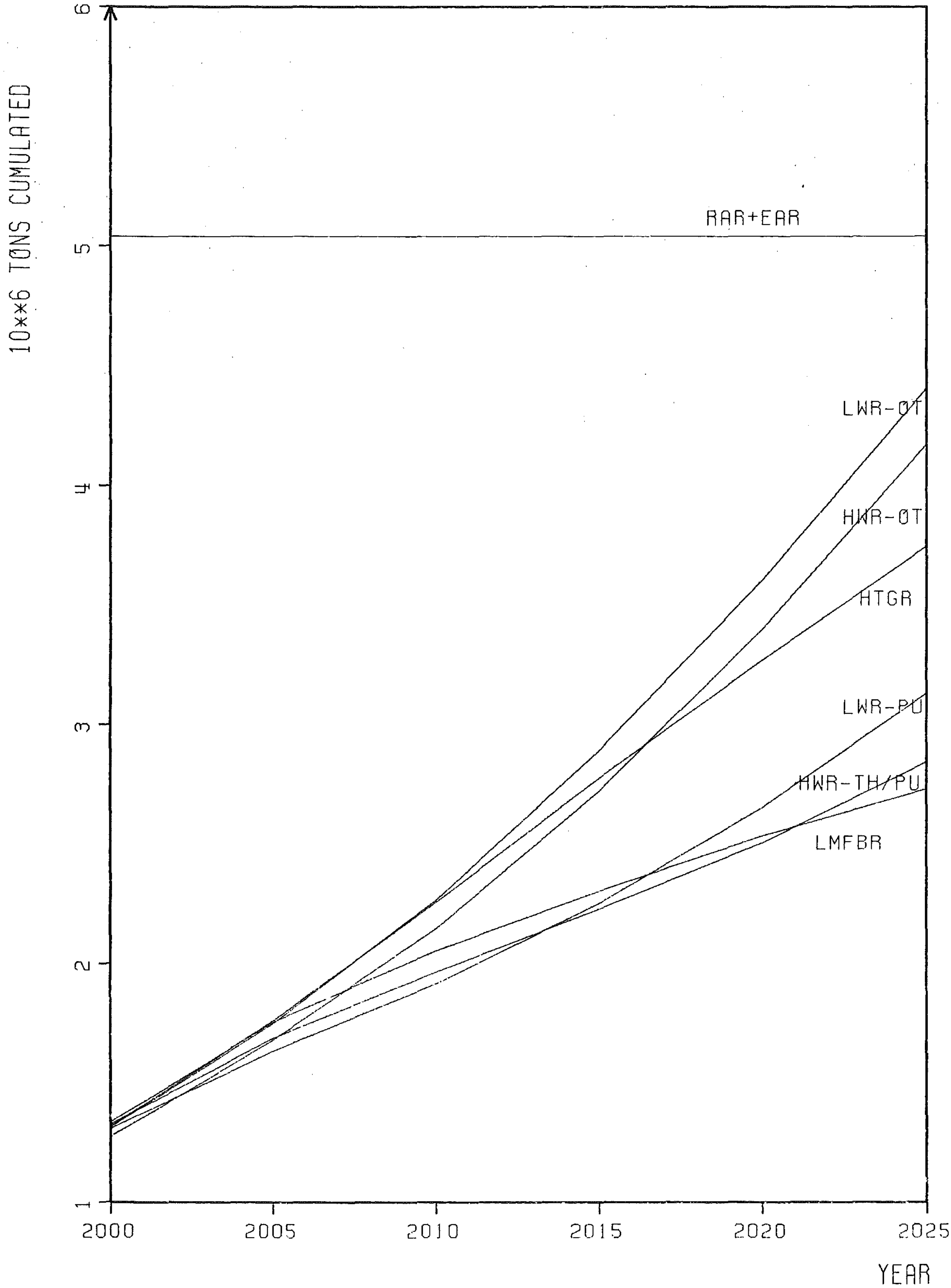
Strategies No Name	Case	annual in 2025 (10^3t) low	high	cumulated 1960 to 2025 (10^6t) low	high	cum. committed 1960 to 2025 (10^6t) low	high
1.1 LWR-OT-REF	a	171	374	4.51	7.70	6.61	12.53
2.1 LWR-PU-Recycle	a	125	291	3.65	6.36	4.61	10.28
	b	104	257	3.13	5.58	4.31	8.46
	c					4.31	8.46
3.1 LMFBR-REF	a	46	114	3.19	5.02	3.60	6.32
(oxide,1a out-	b	34	85	2.73	4.10	2.69	4.80
of-pile-time)	c					2.42	4.24
4.1 HWR-OT-REF	a	163	355	4.26	7.18	6.59	12.49
5.1 HTGR (HEU)	a	97	212	3.85	6.32	4.45	7.73
	b	95	210	3.75	6.19	3.96	6.56
	c					3.55	6.14
5.2 HWR-TH/PU	a	91	255	3.37	5.80	4.38	9.17
	b	75	227	2.85	5.05	3.60	7.55
	c					3.60	7.55

Note: Case a: without U-235 credit from reprocessed spent fuel
Case b: with 100 % U-235 credit from reprocessed spent fuel
Case c: with 100 % U-235 credit if all discharged spent fuel would be reprocessed

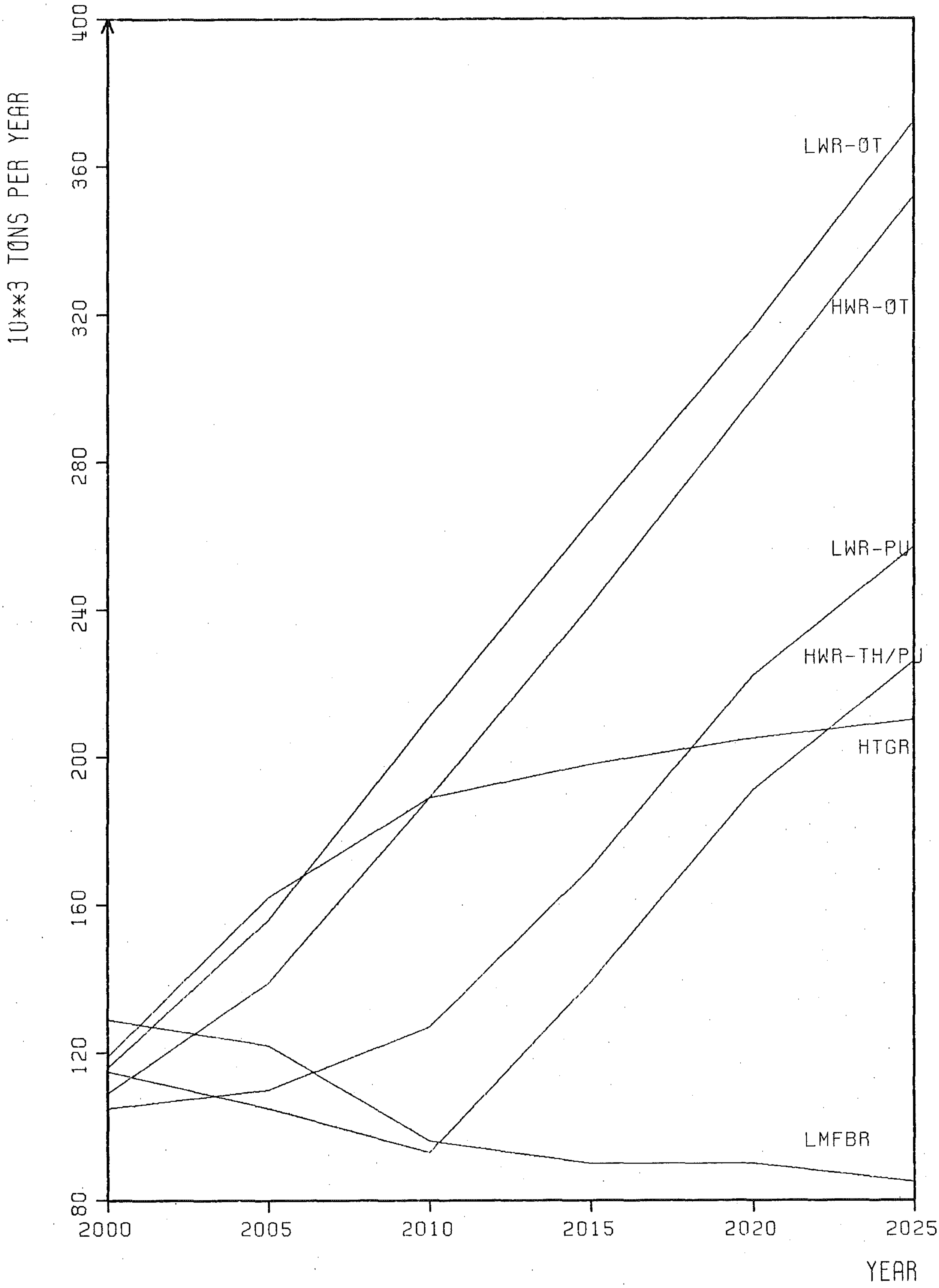
*World Outside Centrally Planned Economies Areas



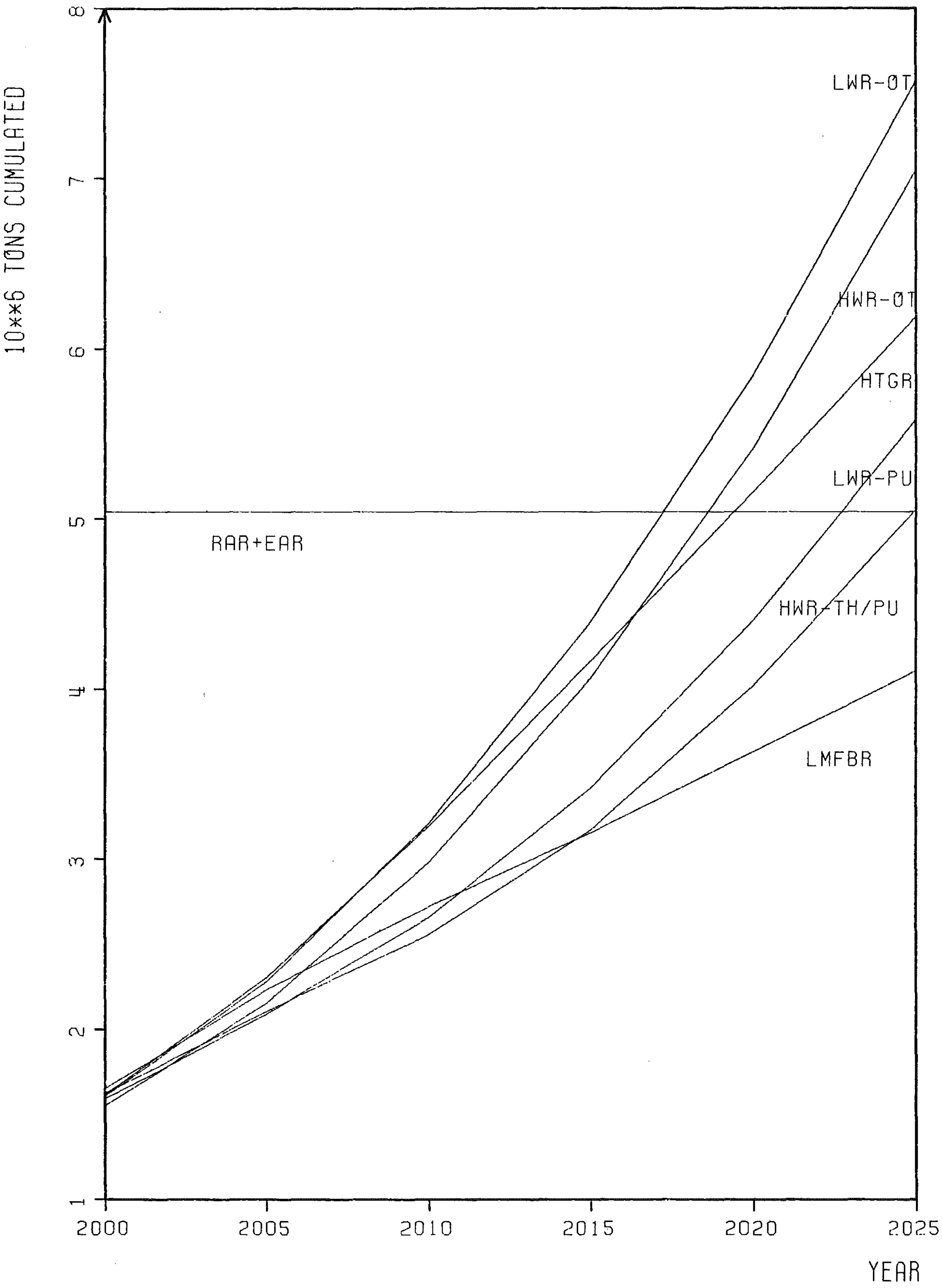
ANNUAL NATURAL URANIUM DEMAND FØR WØCA
IN THE REFERENCE STRATEGIES (LØW CASE)
(100 % U235 CREDIT ASSUMED FRØM REPRØCESSED SPENT FUEL)



CUMULATIVE NATURAL URANIUM DEMAND FØR WØCA
IN THE REFERENCE STRATEGIES (LØW CASE)
(100 % U235 CREDIT ASSUMED FRØM REPRØCESSED SPENT FUEL)



ANNUAL NATURAL URANIUM DEMAND FOR WOCA
IN THE REFERENCE STRATEGIES (HIGH CASE)
(100 % U235 CREDIT ASSUMED FROM REPROCESSED SPENT FUEL)



CUMULATIVE NATURAL URANIUM DEMAND FOR WOCA
IN THE REFERENCE STRATEGIES (HIGH CASE)
(100 % U235 CREDIT ASSUMED FROM REPROCESSED SPENT FUEL)

IV.3 Detailed Regional Results of the SOPKA Nuclear Fuel Cycle Calculations

According the WPNFCR disaggregation of WOCA in the OECD-regions

- North America
- Europe
- Pacific

and the developing country regions

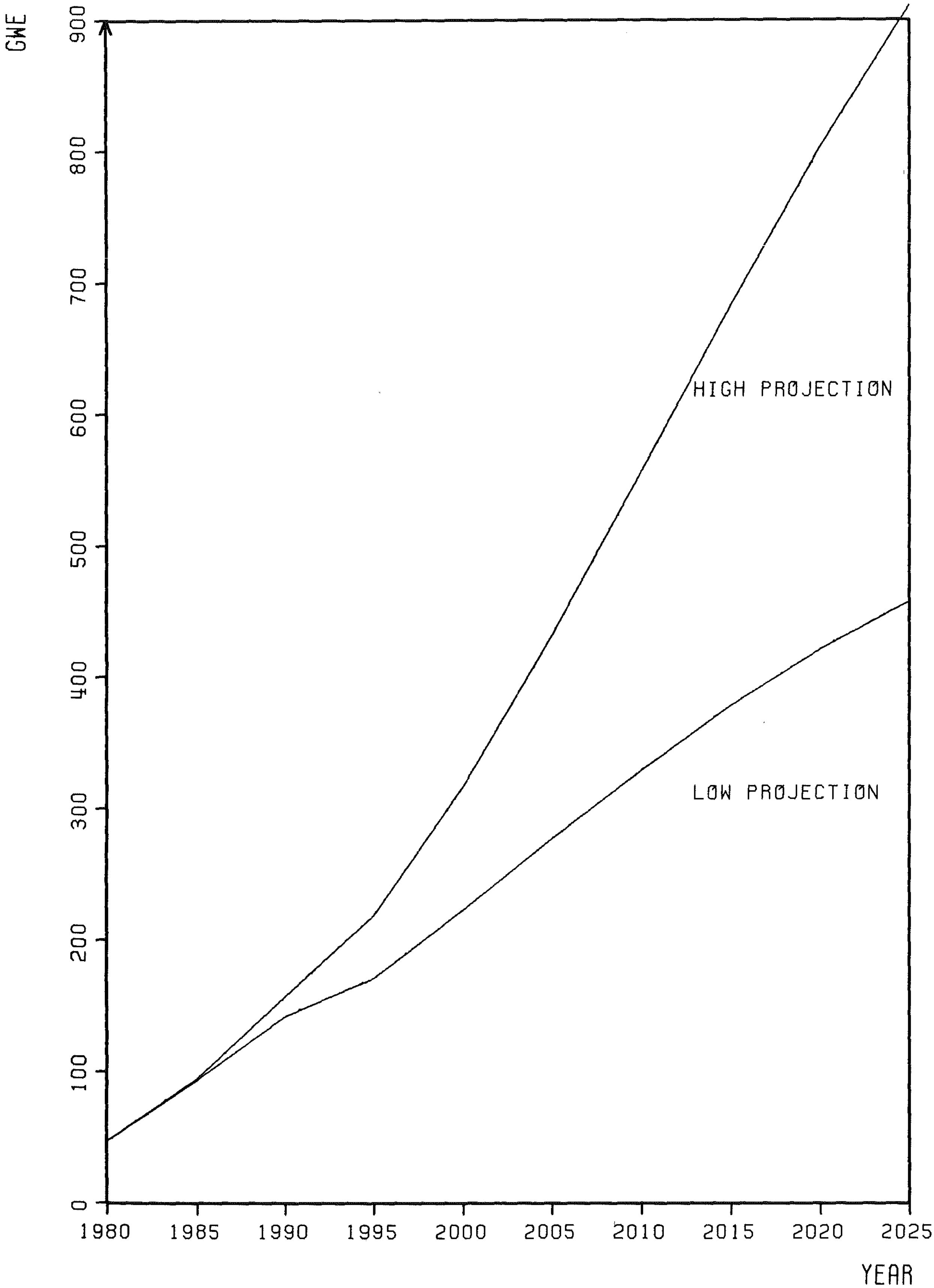
- Latin America
- Africa and Middle East
- Asia and Far East,

each of them is represented below by a single chapter. Within such chapters some illustrative figures of reactor distributions and fuel cycle requirements give a first impression of the specific regional situation while the then following computer outprints are thought to be the background material for any possible comparison on one of the three aggregational levels[1].

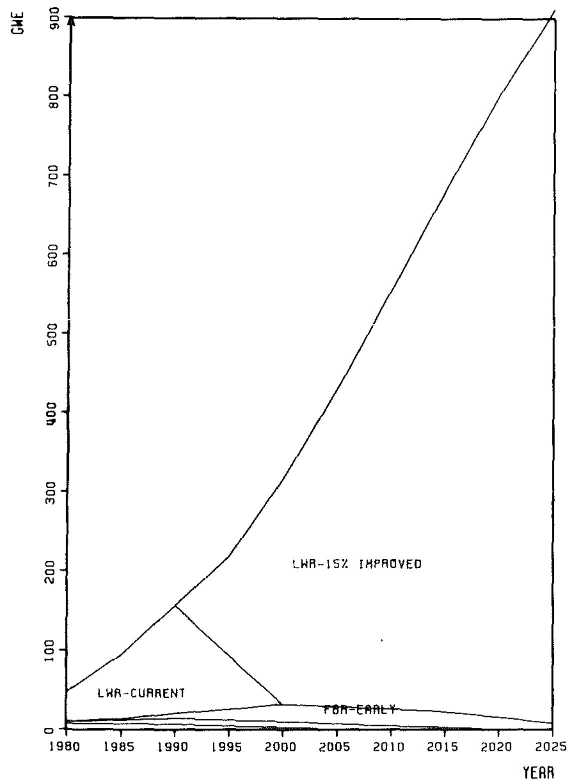
---

1) Note related to the High Temperature Reactor Strategies: The original data set of the HTR fuelling characteristics makes no distinction between U-233 and U-235 in the fissile recycle material. Therefore it is not possible to give detailed information about the reprocessed and recycled amounts of U-233 as in the case of the HWR-TH/PU-Strategy. For that reason the numbers of uranium requirements in the computer outprints are net requirements and correspond to the fresh U-235 needs in the running-in period and the fresh make up fuel necessary during the equilibrium phase of operation.

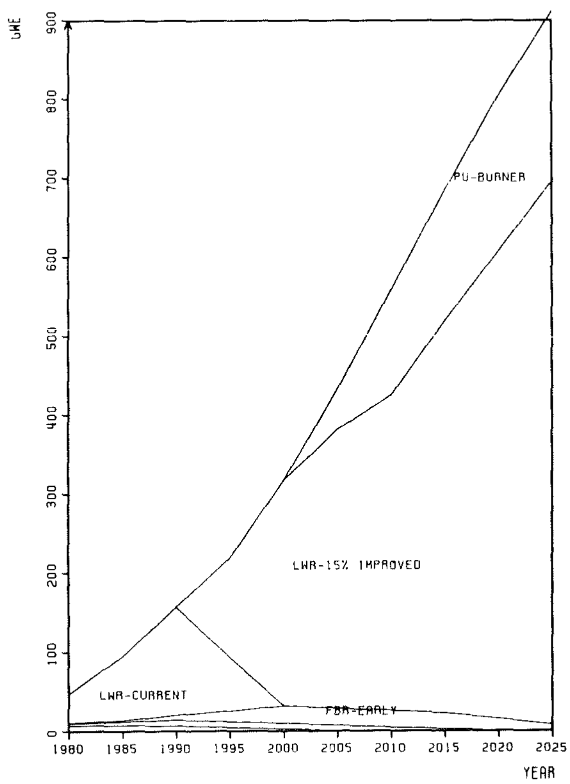
IV.3.1 OECD-Europe



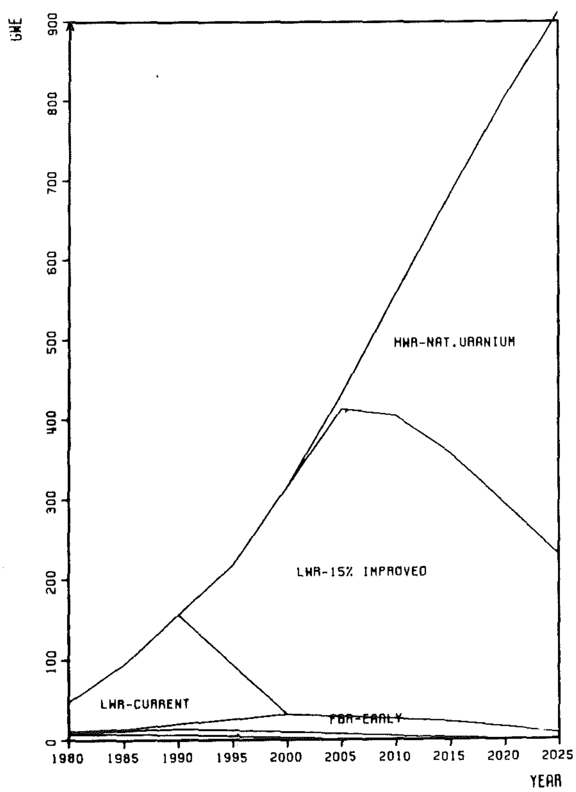
INSTALLED NUCLEAR CAPACITY FOR OECD EUROPE



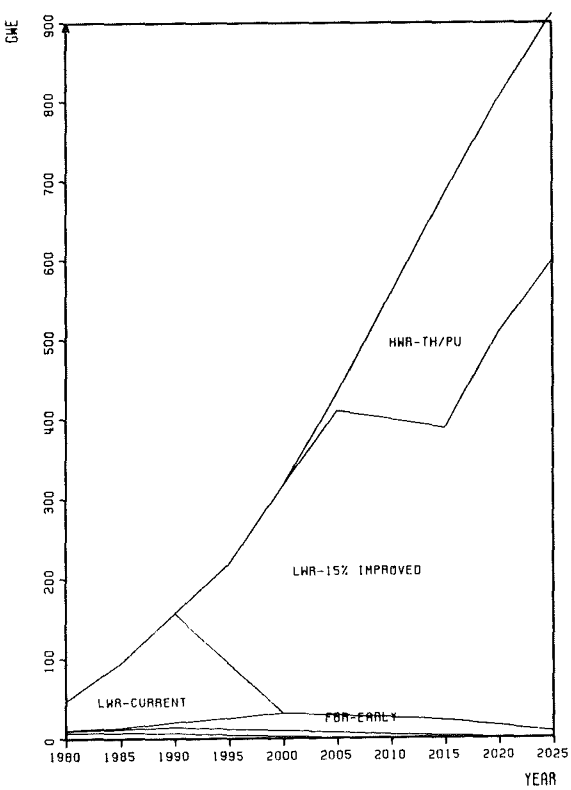
OECD-EUROPE LWR-OT-REF STRATEGY (HIGH CASE)



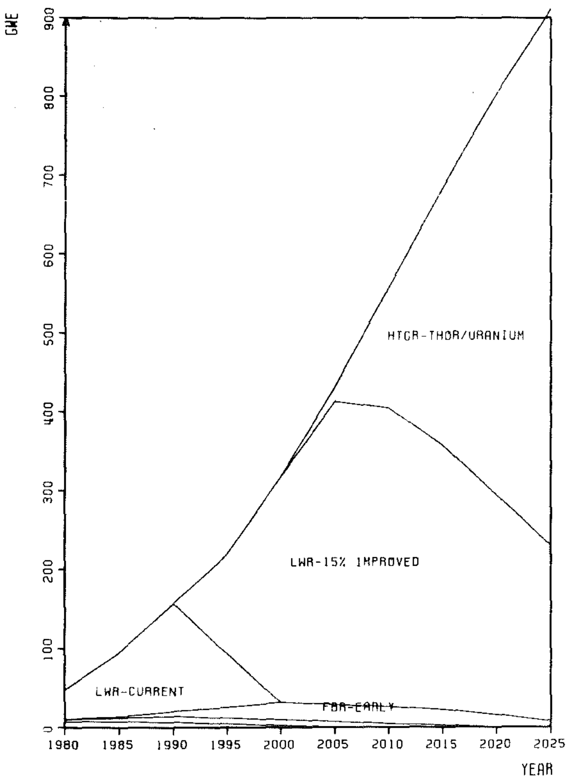
OECD-EUROPE LWR-PU-REF STRATEGY (HIGH CASE)



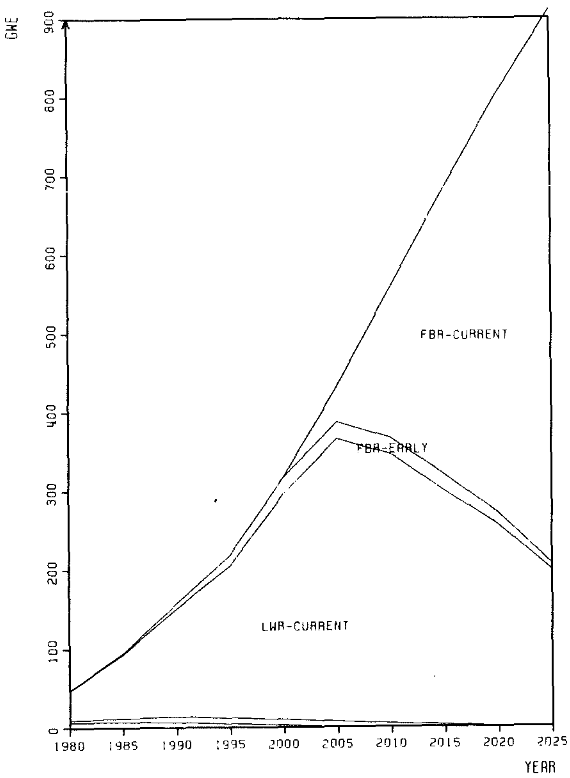
OECD-EUROPE HWR-OT-REF STRATEGY (HIGH CASE)



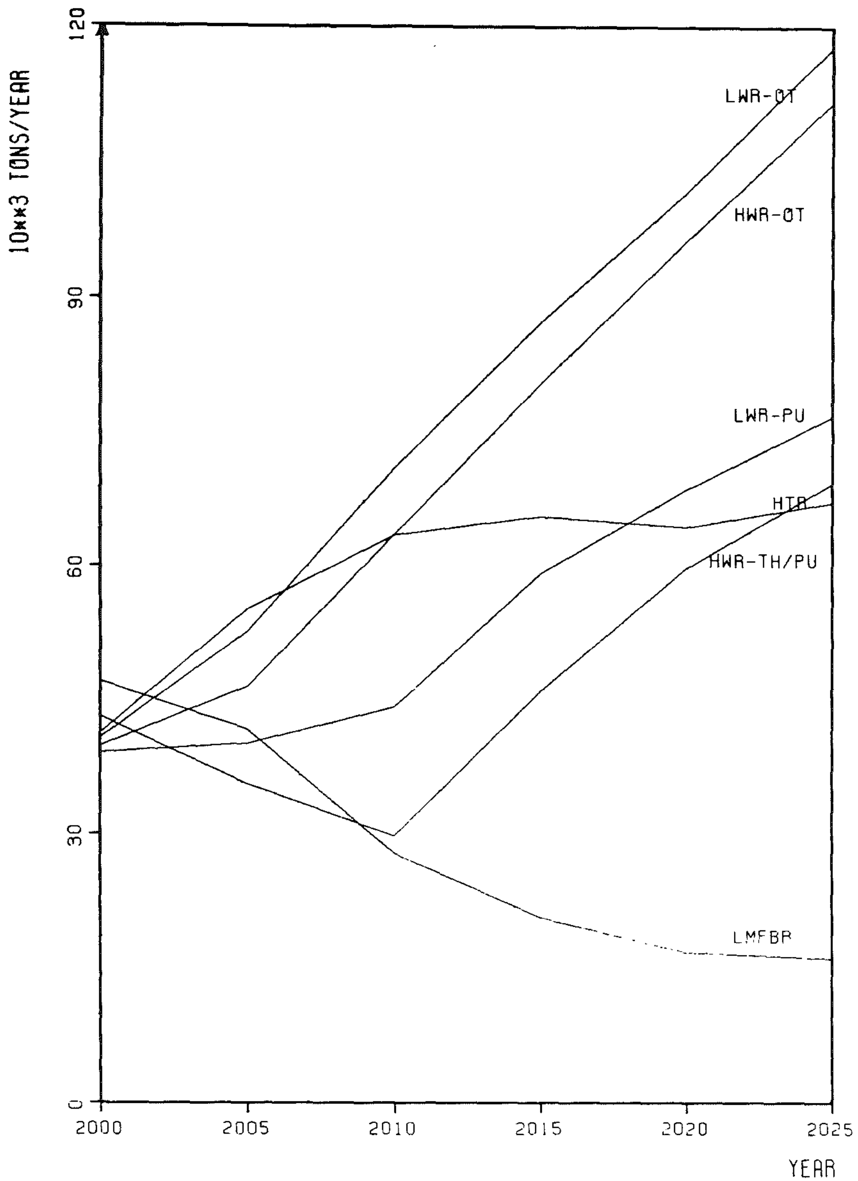
OECD-EUROPE HWR-TH/PU-REF STRATEGY (HIGH CASE)



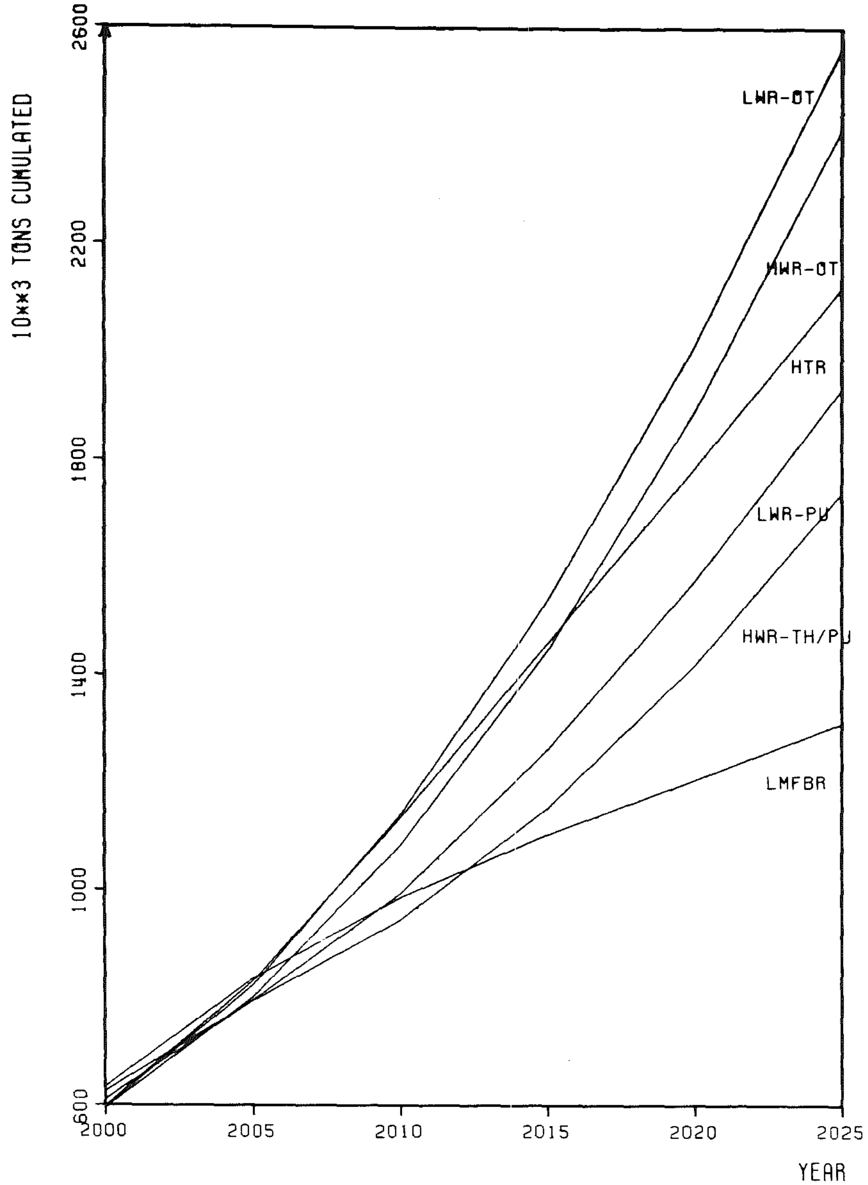
OECD-EUROPE HTR-TH/U-REF STRATEGY (HIGH CASE)



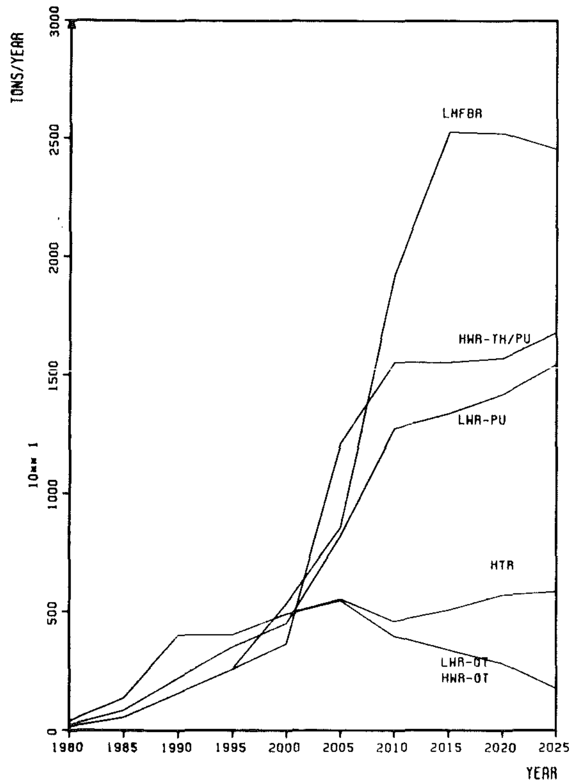
OECD-EUROPE LMFBR-REF STRATEGY (HIGH CASE)



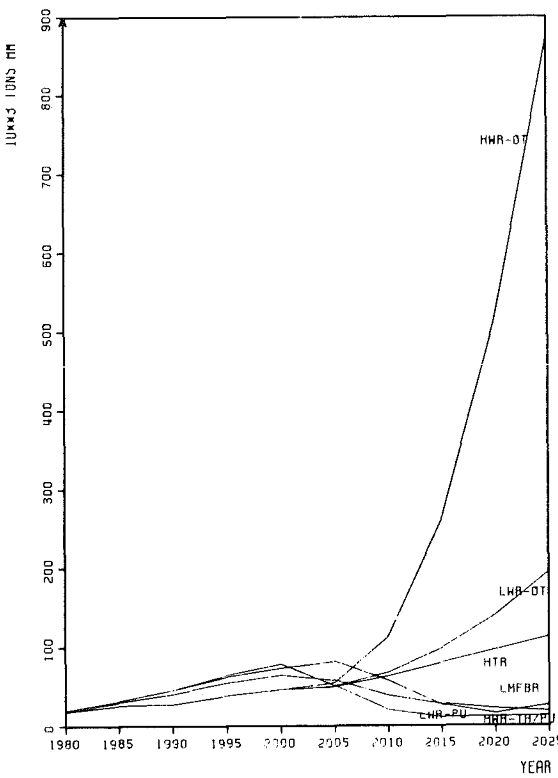
NATURAL URANIUM DEMAND FOR OECD-EUROPE
REFERENCE STRATEGIES (HIGH CASE)
(100 % U235 CREDIT ASSUMED FROM REPROCESSED SPENT FUEL)



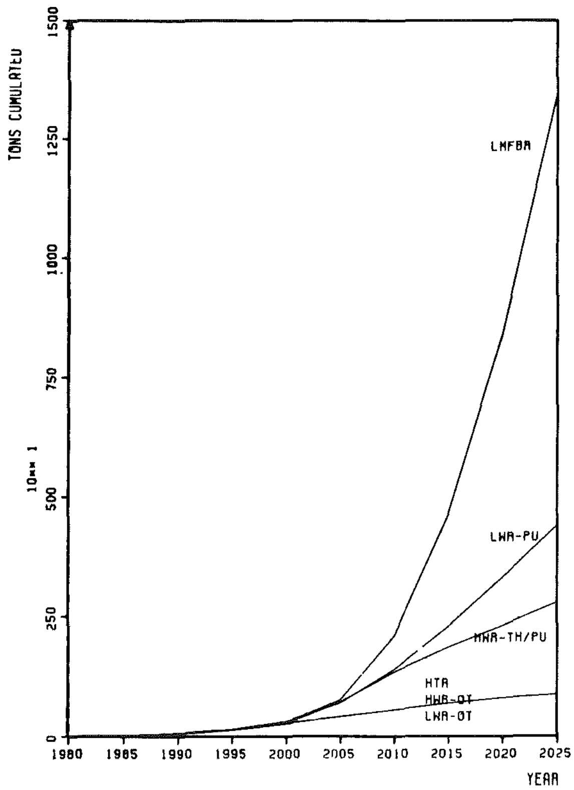
NATURAL URANIUM DEMAND FOR OECD-EUROPE
REFERENCE STRATEGIES (HIGH CASE)
(100 % U235 CREDIT ASSUMED FROM REPROCESSED SPENT FUEL)



ANNUAL REPROCESSING REQUIREMENTS FOR OECD-EUROPE
REFERENCE STRATEGIES (HIGH CASE)

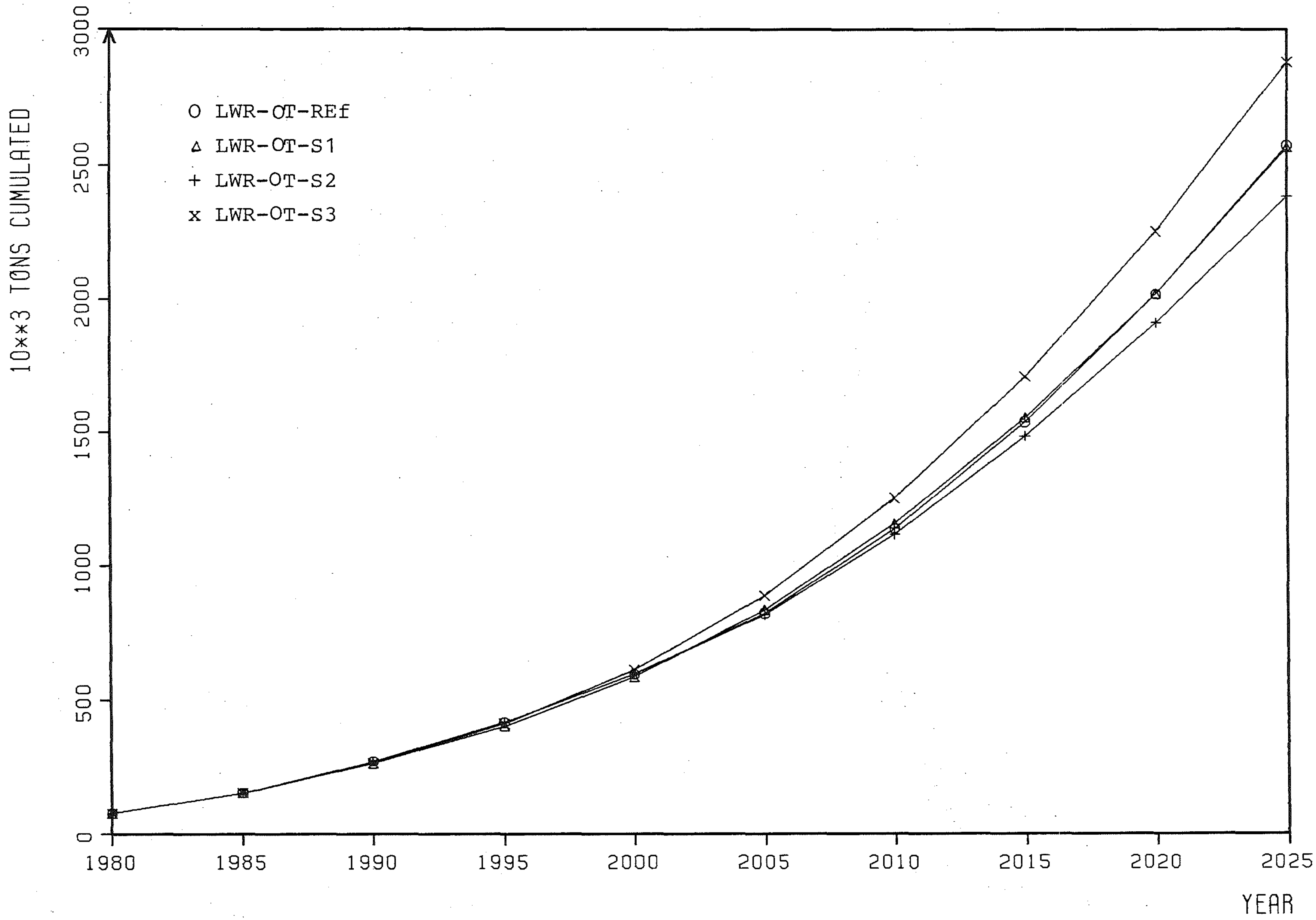


AMOUNT OF UNREPROCESSED SPENT FUEL IN SYSTEM
IN OECD-EUROPE REFERENCE STRATEGIES (HIGH CASE)



FISSILE PLUTONIUM REPROCESSED
IN OECD-EUROPE REFERENCE STRATEGIES (HIGH CASE)

A. Light Water Reactor
Once-Through Strategies
(high projection)



NATURAL URANIUM DEMAND FØR ØECD-EURØPE
LWR-ØT STRATEGIES (HIGH CASE)

SCENARIO EUROPE HIGH 11 LWR-OT-REF 310881 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	7.3	7.3	6.9	4.7	2.7	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	4.8	7.3	7.3	7.3	7.3	4.8	2.5	0.0	0.0
FBR OX. FUELED (EARLY)	0.5	1.6	6.1	13.5	21.5	21.3	21.0	19.9	15.4	8.0
LWR-OT CURRENT (PWR/BWR=2/1)	36.8	81.0	136.7	68.4	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	125.2	285.5	403.5	531.2	660.6	787.6	903.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	47.1	94.8	157.1	219.0	317.0	432.0	557.0	683.0	803.0	911.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	2.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (EARLY)	0.2	1.2	4.5	7.4	8.0	0.0	0.0	0.0	0.0	0.0
LWR-OT CURRENT (PWR/BWR=2/1)	28.2	44.2	55.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	57.3	93.0	125.1	155.9	173.7	182.7	172.6
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	68.0	67.3	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.3	18.7	27.7	35.6	45.0	60.0	75.5	90.6	104.5	119.5
IN 1000 TONNES CUMULATED	78.2	153.5	270.5	429.3	630.1	893.0	1231.8	1647.3	2135.0	2695.8
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.3	18.7	27.7	33.1	40.7	52.7	70.9	87.2	101.7	117.8
IN 1000 TONNES CUMULATED	78.2	153.5	270.5	416.9	596.4	822.9	1139.1	1537.4	2010.9	2562.9
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	205.7	388.1	616.2	829.7	1176.6	1643.2	2224.7	2872.6	3554.1	4197.9
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	172.9	317.0	497.2	673.2	959.2	1343.9	1823.3	2357.4	2919.2	3449.9
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.1	11.4	18.5	26.0	35.6	48.7	62.3	75.7	88.4	101.2
IN 1000 TONNES CUMULATED	29.5	73.4	148.4	259.7	413.8	624.5	902.0	1247.0	1657.4	2131.5
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3397.6	4813.4	6797.4	6962.7	6881.2	8564.3	10655.1	12657.7	14367.7	16584.4
IN 1000 TONNES HM CUMUL.	34.4	54.8	83.0	116.9	152.0	190.2	238.0	296.2	363.9	440.8
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	26.3	96.0	249.0	452.6	572.8	566.2	557.2	515.7	386.8	188.7
IN 1000 TONNES HM CUMUL.	0.1	0.4	1.2	3.0	5.6	8.5	11.3	14.0	16.2	17.6

SCENARIO EUROPE HIGH 11 LWR-OT-REF 310881 CODE SOPKA

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	404.0	1361.9	4013.3	4040.9	4916.8	5477.1	3983.9	3403.2	2830.1	1760.6
IN 1000 TONNES HM CUMUL.	2.9	9.7	29.7	49.9	74.5	101.9	121.8	138.9	153.0	161.8
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	2379.3	3503.2	5001.8	6324.5	6534.4	6667.4	7955.3	9694.8	11363.9	13540.1
IN 1000 TONNES HM CUMUL.	21.2	35.9	57.3	88.6	120.6	152.0	189.6	236.5	292.8	356.8
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1964.2	2105.0	854.0	1975.6	1108.2	643.0	3430.1	5767.4	8079.1	11473.8
IN 1000 TONNES HM CUMUL.	18.2	26.0	26.9	36.9	42.3	43.7	58.6	85.9	125.5	178.7
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	11.1	36.2	134.4	308.0	509.4	547.4	541.3	524.2	454.7	305.6
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.6	1.7	3.7	6.4	9.1	11.8	14.3	16.3
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	56.5	116.0	216.5	376.6	564.7	779.2	1062.6	1422.4	1857.4	2358.3
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	1.2	4.4	11.8	22.0	28.9	28.6	28.1	25.8	19.2	9.2
IN TONNES CUMULATED	5.7	19.3	59.5	143.9	272.0	415.8	557.5	692.4	805.0	876.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	1.2	4.2	11.5	21.6	28.9	28.6	28.2	26.1	19.5	9.5
IN TONNES CUMULATED	5.4	18.2	56.9	139.5	267.1	411.0	552.9	688.4	802.4	875.1
PU USED IN REACTORS										
IN TONNES/YEAR	1.0	3.5	10.3	20.4	29.0	28.6	28.3	26.8	20.7	10.8
IN TONNES CUMULATED	4.5	15.0	48.8	125.4	250.4	394.4	536.9	674.6	793.2	871.9
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.3	1.1	2.6	4.4	4.9	4.8	4.7	4.0	2.7	0.9
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.0	17.4	31.9	50.8	68.3	77.5	90.8	104.3	114.1	121.9
IN TONNES CUMULATED	59.3	125.2	248.6	468.0	765.4	1121.3	1550.1	2052.5	2618.8	3219.0
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	41.9	79.7	127.8	187.6	233.5	284.3	397.4	592.7	886.9	1293.3
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	7.3	7.3	6.9	4.7	2.7	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	4.8	7.3	7.3	7.3	7.3	4.8	2.5	0.0	0.0
FBR OX. FUELED (EARLY)	0.5	1.6	6.1	13.5	21.5	21.2	21.0	19.8	15.3	8.0
LWR-OT CURRENT (PWR/BWR=2/1)	36.8	81.0	136.7	136.3	135.2	128.1	99.9	55.7	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	57.3	150.2	275.3	431.2	604.9	787.6	903.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	47.1	94.8	157.1	219.0	317.0	432.0	557.0	683.0	803.0	911.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	2.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (EARLY)	0.2	1.2	4.5	7.3	8.0	0.0	0.0	0.0	0.0	0.0
LWR-OT CURRENT (PWR/BWR=2/1)	28.2	44.2	55.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	57.3	93.0	125.1	155.9	173.7	182.7	172.6
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.3	18.7	25.5	34.6	47.3	62.0	76.9	91.3	104.5	119.5
IN 1000 TONNES CUMULATED	78.2	153.5	263.8	414.7	620.1	894.0	1241.8	1662.4	2151.7	2712.5
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.3	18.7	25.5	32.1	43.1	57.1	71.8	86.3	98.6	116.1
IN 1000 TONNES CUMULATED	78.2	153.5	263.8	402.3	586.4	835.5	1157.6	1553.4	2013.0	2556.6
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	220.0	419.7	669.5	883.1	1229.9	1696.6	2278.1	2926.0	3607.4	4251.2
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	163.1	295.3	460.5	636.6	922.5	1307.2	1786.6	2320.7	2882.5	3413.3
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.1	11.4	17.1	24.5	35.3	48.5	62.1	75.7	88.4	101.2
IN 1000 TONNES CUMULATED	29.5	73.4	145.0	249.0	398.6	608.2	884.8	1229.2	1639.4	2113.5
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3397.6	4813.4	6019.5	6926.3	8332.9	9912.7	11678.9	13189.5	14367.7	16584.4
IN 1000 TONNES HM CUMUL.	34.4	54.8	81.9	113.8	151.5	196.7	250.5	312.5	381.6	458.5
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	26.3	96.0	249.0	452.6	572.8	566.2	557.2	515.7	386.8	188.7
IN 1000 TONNES HM CUMUL.	0.1	0.4	1.2	3.0	5.6	8.5	11.3	14.0	16.2	17.6

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	404.0	1361.9	4013.3	4040.9	4916.8	5142.0	4653.3	4276.9	3829.0	2173.5
IN 1000 TONNES HM CUMUL.	2.9	9.7	29.7	49.9	74.5	100.2	123.5	144.9	164.0	174.9
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	2379.3	3503.2	5001.8	5980.4	6925.5	8160.1	9478.1	10995.0	12245.9	13540.1
IN 1000 TONNES HM CUMUL.	21.2	35.9	57.3	85.4	117.5	155.7	199.8	251.5	310.1	374.4
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1964.2	2105.0	854.0	1631.5	1499.3	2470.7	4283.5	6193.9	7962.2	11061.0
IN 1000 TONNES HM CUMUL.	18.2	26.0	26.9	33.7	39.3	49.1	67.2	94.8	131.7	183.2
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	11.1	36.2	134.4	308.0	509.4	547.4	541.3	524.2	454.7	305.6
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.6	1.7	3.7	6.4	9.1	11.8	14.3	16.3

DETAILS ON FISSILE MATERIAL

1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	56.5	116.0	216.5	360.0	545.0	787.3	1097.0	1476.2	1920.5	2422.5
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	1.2	4.4	11.8	22.0	28.9	28.6	28.1	25.8	19.2	9.2
IN TONNES CUMULATED	5.7	19.3	59.5	143.9	272.0	415.8	557.5	692.4	805.0	876.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	1.2	4.2	11.5	21.6	28.9	28.6	28.2	26.1	19.5	9.5
IN TONNES CUMULATED	5.4	18.2	56.9	139.5	267.1	411.0	552.9	688.4	802.4	875.1
PU USED IN REACTORS										
IN TONNES/YEAR	1.0	3.5	10.3	20.4	29.0	28.6	28.3	26.8	20.7	10.8
IN TONNES CUMULATED	4.5	15.0	48.8	125.4	250.4	394.4	536.9	674.6	793.2	871.9
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.3	1.1	2.6	4.4	4.9	4.8	4.7	4.0	2.7	0.9
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.0	17.4	31.9	48.7	69.1	83.6	97.3	110.0	118.3	121.9
IN TONNES CUMULATED	59.3	125.2	248.6	451.4	745.8	1129.4	1584.5	2106.3	2681.8	3283.2
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	41.9	79.7	127.8	172.5	211.7	285.1	425.7	642.5	948.7	1357.6

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)
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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	7.3	7.3	6.9	4.7	2.7	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	4.8	7.3	7.3	7.3	7.3	4.8	2.5	0.0	0.0
FBR OX. FUELED (EARLY)	0.5	1.6	6.1	13.5	21.5	21.3	21.0	19.9	15.4	8.0
LWR-OT CURRENT (PWR/BWR=2/1)	36.8	81.0	136.7	68.4	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	125.2	285.5	278.4	250.2	205.9	150.2	93.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	125.1	281.0	454.7	637.4	810.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	47.1	94.8	157.1	219.0	317.0	432.0	557.0	683.0	803.0	911.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD
****

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	2.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (EARLY)	0.2	1.2	4.5	7.4	8.0	0.0	0.0	0.0	0.0	0.0
LWR-OT CURRENT (PWR/BWR=2/1)	28.2	44.2	55.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	57.3	93.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	125.1	155.9	173.7	182.7	172.6
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING
****

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	68.0	67.3	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS
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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.3	18.7	27.7	35.6	45.3	57.5	69.4	80.6	90.2	101.4
IN 1000 TONNES CUMULATED	78.2	153.5	270.5	429.3	630.6	888.3	1205.9	1581.3	2008.3	2487.9
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.3	18.7	27.7	33.1	41.1	50.2	65.9	78.8	87.4	100.5
IN 1000 TONNES CUMULATED	78.2	152.5	270.5	416.9	596.9	818.2	1118.1	1484.5	1897.3	2372.5
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	205.7	388.1	616.2	829.7	1176.6	1563.3	2045.2	2582.1	3146.8	3680.3
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	172.9	317.0	497.2	673.2	959.2	1300.7	1726.3	2200.5	2699.3	3170.5
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.1	11.4	18.5	26.0	36.5	47.0	57.2	66.8	75.3	84.5
IN 1000 TONNES CUMULATED	29.5	73.4	148.4	259.7	414.5	622.9	883.3	1193.3	1548.9	1948.0
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3397.6	4813.4	6797.4	6962.7	6907.4	8284.2	9989.1	11559.3	12810.4	14603.3
IN 1000 TONNES HM CUMUL.	34.4	54.8	83.0	116.9	151.9	189.5	234.9	288.7	349.7	417.7
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	26.3	96.0	249.0	452.6	572.8	566.2	557.2	515.7	386.8	188.7
IN 1000 TONNES HM CUMUL.	0.1	0.4	1.2	3.0	5.6	8.5	11.3	14.0	16.2	17.6

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	404.0	1361.9	4013.3	4040.9	4916.8	5477.1	4076.4	3553.9	2830.1	1842.2
IN 1000 TONNES HM CUMUL.	2.9	9.7	29.7	49.9	74.5	101.9	122.3	140.1	154.2	163.4
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	2379.3	3503.2	5001.8	6324.5	6534.4	6420.2	7338.2	8657.5	9879.8	11624.6
IN 1000 TONNES HM CUMUL.	21.2	35.9	57.3	88.6	120.6	151.4	186.8	229.6	279.6	335.1
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1964.2	2105.0	854.0	1975.6	1108.2	395.8	2720.6	4579.4	6595.0	9476.8
IN 1000 TONNES HM CUMUL.	18.2	26.0	26.9	36.9	42.3	43.1	55.4	77.7	111.0	155.4
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	11.1	36.2	134.4	308.0	509.4	547.4	541.3	524.2	454.7	305.6
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.6	1.7	3.7	6.4	9.1	11.8	14.3	16.3
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	56.5	116.0	216.5	376.6	564.7	773.1	1035.1	1353.8	1726.3	2142.9
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	1.2	4.4	11.8	22.0	28.9	28.6	28.1	25.8	19.2	9.2
IN TONNES CUMULATED	5.7	19.3	59.5	143.9	272.0	415.8	557.5	692.4	805.0	876.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	1.2	4.2	11.5	21.6	28.9	28.6	28.2	26.1	19.5	9.5
IN TONNES CUMULATED	5.4	18.2	56.9	139.5	267.1	411.0	552.9	688.4	802.4	875.1
PU USED IN REACTORS										
IN TONNES/YEAR	1.0	3.5	10.3	20.4	29.0	28.6	28.3	26.8	20.7	10.8
IN TONNES CUMULATED	4.5	15.0	48.8	125.4	250.4	394.4	536.9	674.6	793.2	871.9
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.3	1.1	2.6	4.4	4.9	4.8	4.7	4.0	2.7	0.9
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.0	17.4	31.9	50.8	68.3	75.0	84.7	94.0	99.4	102.9
IN TONNES CUMULATED	59.3	125.2	248.6	468.0	765.4	1115.2	1522.5	1983.9	2487.7	3003.6
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	41.9	79.7	127.8	187.6	233.5	280.1	376.1	535.4	772.5	1100.1
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO EUROPE HIGH 14 LWR-OT-S3 310881 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	7.3	7.3	6.9	4.7	2.7	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	4.8	7.3	7.3	7.3	7.3	4.8	2.5	0.0	0.0
FBR OX. FUELED (EARLY)	0.5	1.6	6.1	13.5	21.5	21.2	21.0	19.8	15.3	8.0
LWR-OT CURRENT (PWR/BWR=2/1)	36.8	81.0	136.7	193.6	285.5	403.5	531.2	660.6	787.6	903.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	47.1	94.8	157.1	219.0	317.0	432.0	557.0	683.0	803.0	911.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	2.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (EARLY)	0.2	1.2	4.5	7.3	8.0	0.0	0.0	0.0	0.0	0.0
LWR-OT CURRENT (PWR/BWR=2/1)	28.2	44.2	55.7	57.3	93.0	125.1	155.9	173.7	182.7	172.6
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.3	18.7	26.2	36.8	51.6	68.9	86.7	104.2	120.2	137.5
IN 1000 TONNES CUMULATED	78.2	153.5	265.7	424.1	645.7	947.4	1336.8	1814.4	2375.4	3020.5
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.3	18.7	26.2	34.3	47.3	63.9	81.6	99.3	116.1	134.9
IN 1000 TONNES CUMULATED	78.2	153.5	265.7	411.7	612.0	888.9	1252.6	1705.5	2245.8	2877.9
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	220.0	419.7	669.5	915.1	1314.1	1850.8	2519.6	3264.7	4048.5	4789.0
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	163.1	295.3	460.5	622.7	886.0	1240.3	1681.8	2173.7	2691.1	3180.0
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.1	11.4	17.3	24.8	35.6	48.6	62.0	75.3	87.7	100.5
IN 1000 TONNES CUMULATED	29.5	73.4	145.3	250.4	401.1	611.4	888.0	1231.4	1639.2	2109.7
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3397.6	4813.4	6166.8	7783.9	10277.5	13287.6	16783.3	20193.0	23246.6	26758.0
IN 1000 TONNES HM CUMUL.	34.4	54.8	82.3	116.7	161.4	219.9	294.9	387.2	495.9	620.5
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	26.3	96.0	249.0	452.6	572.8	566.2	557.2	515.7	386.8	188.7
IN 1000 TONNES HM CUMUL.	0.1	0.4	1.2	3.0	5.6	8.5	11.3	14.0	16.2	17.6

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	404.0	1361.9	4013.3	4040.9	4916.8	5142.0	4653.3	4276.9	3565.4	2233.6
IN 1000 TONNES HM CUMUL.	2.9	9.7	29.7	49.9	74.5	100.2	123.5	144.9	162.7	173.9
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	2379.3	3503.2	5001.8	6473.7	8343.4	10856.2	13786.8	17136.2	20335.3	23069.5
IN 1000 TONNES HM CUMUL.	21.2	35.9	57.3	86.6	123.6	172.0	233.6	311.4	405.6	514.1
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1964.2	2105.0	854.0	2124.8	2917.2	5166.7	8592.2	12335.0	16315.3	20530.3
IN 1000 TONNES HM CUMUL.	18.2	26.0	26.9	35.0	45.3	65.4	101.0	154.8	228.6	323.9
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	11.1	36.2	134.4	308.0	509.4	547.4	541.3	524.2	454.7	305.6
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.6	1.7	3.7	6.4	9.1	11.8	14.3	16.3
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	56.5	116.0	216.5	365.0	569.6	853.8	1235.1	1721.1	2310.7	2993.1
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	1.2	4.4	11.8	22.0	28.9	28.6	28.1	25.8	19.2	9.2
IN TONNES CUMULATED	5.7	19.3	59.5	143.9	272.0	415.8	557.5	692.4	805.0	876.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	1.2	4.2	11.5	21.6	28.9	28.6	28.2	26.1	19.5	9.5
IN TONNES CUMULATED	5.4	18.2	56.9	139.5	267.1	411.0	552.9	688.4	802.4	875.1
PU USED IN REACTORS										
IN TONNES/YEAR	1.0	3.5	10.3	20.4	29.0	28.6	28.3	26.8	20.7	10.8
IN TONNES CUMULATED	4.5	15.0	48.8	125.4	250.4	394.4	536.9	674.6	793.2	871.9
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.3	1.1	2.6	4.4	4.9	4.8	4.7	4.0	2.7	0.9
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.0	17.4	31.9	50.7	74.9	94.6	114.9	135.1	151.4	160.8
IN TONNES CUMULATED	59.3	125.2	248.6	456.4	770.3	1196.0	1722.6	2351.2	3072.0	3853.8
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	41.9	79.7	127.8	176.0	230.5	340.0	544.4	858.8	1300.6	1881.9
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Light Water Reactor
Once-Through Strategies
(low projection)

SCENARIO EUROPE LOW 11 LWR-OT-REF 310881 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	7.3	7.3	6.9	4.7	2.7	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	4.8	7.3	7.3	7.3	7.3	4.8	2.5	0.0	0.0
FBR OX. FUELED (EARLY)	0.5	1.6	4.6	10.3	15.3	15.0	14.8	13.6	10.6	5.0
LWR-OT CURRENT (PWR/BWR=2/1)	36.8	79.8	123.2	61.6	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	87.3	197.8	254.7	309.4	361.9	410.4	452.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	47.1	93.5	142.0	171.0	223.0	277.0	329.0	378.0	421.0	457.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	2.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (EARLY)	0.2	1.2	3.0	5.6	5.0	0.0	0.0	0.0	0.0	0.0
LWR-OT CURRENT (PWR/BWR=2/1)	28.2	42.9	43.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	26.1	50.0	64.1	82.9	95.4	91.9	67.7
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	61.2	60.5	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.2	17.4	23.1	26.5	29.6	36.4	43.0	48.5	52.8	58.6
IN 1000 TONNES CUMULATED	77.8	149.2	250.9	375.2	514.6	690.1	878.9	1107.5	1360.4	1639.3
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.2	17.4	23.1	25.1	26.7	33.0	37.2	45.3	50.8	57.4
IN 1000 TONNES CUMULATED	77.8	149.2	250.9	368.6	493.3	641.6	811.8	1024.2	1267.2	1540.2
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	205.7	383.1	563.1	660.5	847.0	1086.1	1395.3	1751.1	2093.9	2346.5
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	172.9	312.9	455.0	535.3	689.0	886.1	1141.0	1434.4	1717.0	1925.2
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.1	10.7	15.7	19.4	23.9	30.1	35.8	41.0	45.2	50.0
IN 1000 TONNES CUMULATED	29.4	71.4	137.6	225.4	333.7	468.7	633.6	825.6	1041.1	1279.2
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3375.4	4570.0	5915.4	5509.3	4665.1	5247.4	6154.3	6825.1	7171.2	8098.4
IN 1000 TONNES HM CUMUL.	34.4	54.2	79.9	108.2	134.2	158.8	187.1	219.6	254.9	292.8
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	26.3	78.7	188.8	331.2	406.1	399.5	390.4	353.6	265.5	117.9
IN 1000 TONNES HM CUMUL.	0.1	0.4	1.0	2.3	4.2	6.2	8.2	10.1	11.6	12.6

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	404.0	1197.3	3123.2	4088.7	3791.3	3820.1	3638.4	2580.1	1957.8	1176.7
IN 1000 TONNES HM CUMUL.	2.9	8.9	24.5	44.9	63.9	83.0	101.2	114.1	123.8	129.7
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	2379.3	3477.2	4692.8	5522.0	5157.4	4567.1	4851.7	5508.4	6084.1	6842.6
IN 1000 TONNES HM CUMUL.	21.2	35.8	56.4	84.6	111.2	134.2	158.7	187.4	219.2	252.2
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1964.2	2243.6	1465.9	1199.6	1001.3	359.6	832.0	2564.1	3813.8	5461.1
IN 1000 TONNES HM CUMUL.	18.2	26.8	31.4	38.4	44.5	46.5	50.9	64.8	85.0	110.9
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	11.1	36.2	103.7	233.7	364.8	387.4	381.3	364.2	312.5	204.8
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.5	1.4	2.9	4.7	6.7	8.6	10.3	11.6
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	56.5	115.6	210.9	351.4	500.0	648.9	829.6	1043.8	1285.1	1542.7
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	1.2	3.7	8.9	16.2	20.5	20.2	19.7	17.7	13.2	5.7
IN TONNES CUMULATED	5.7	17.7	49.9	111.8	204.0	305.7	405.3	498.8	576.1	623.3
PLUTONIUM RECYCLED										
IN TONNES/YEAR	1.2	3.5	8.7	16.0	20.5	20.2	19.7	17.9	13.4	6.0
IN TONNES CUMULATED	5.4	16.8	47.0	108.6	200.6	302.3	402.1	496.1	574.3	622.7
PU USED IN REACTORS										
IN TONNES/YEAR	1.0	3.0	7.8	15.2	20.6	20.2	19.9	18.3	14.3	6.7
IN TONNES CUMULATED	4.5	14.2	40.8	98.4	188.7	290.7	391.0	486.6	568.2	620.7
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.3	0.9	2.0	3.2	3.5	3.4	3.3	2.8	1.8	0.6
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.0	17.2	28.3	41.3	50.3	52.5	57.6	62.2	64.3	63.8
IN TONNES CUMULATED	59.3	124.8	238.9	424.5	653.2	902.8	1186.1	1500.1	1831.7	2157.2
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	41.9	81.0	134.6	200.9	250.4	287.8	353.4	458.5	609.3	810.4
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)
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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	7.3	7.3	6.9	4.7	2.7	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	4.8	7.3	7.3	7.3	7.3	4.8	2.5	0.0	0.0
FBR OX. FUELED (EARLY)	0.5	1.6	4.6	10.2	15.2	15.0	14.8	13.6	10.6	5.0
LWR-OT CURRENT (PWR/BWR=2/1)	36.8	79.7	123.2	122.7	121.7	114.5	86.3	43.4	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	26.1	76.1	140.2	223.1	318.5	410.4	452.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	47.1	93.5	142.0	171.0	223.0	277.0	329.0	378.0	421.0	457.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD
****

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	2.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (EARLY)	0.2	1.2	3.0	5.6	5.0	0.0	0.0	0.0	0.0	0.0
LWR-OT CURRENT (PWR/BWR=2/1)	28.2	42.9	43.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	26.1	50.0	64.1	82.9	95.4	91.9	67.7
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING
****

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS
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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.2	17.4	21.1	25.6	31.7	38.3	44.2	49.0	52.8	58.6
IN 1000 TONNES CUMULATED	77.8	149.2	244.9	362.0	505.6	681.0	887.4	1120.4	1374.5	1653.3
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.2	17.4	21.1	24.3	28.8	34.8	40.6	45.6	50.0	56.9
IN 1000 TONNES CUMULATED	77.8	149.2	244.9	355.5	484.3	642.5	830.9	1046.6	1286.5	1556.8
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	220.0	414.2	611.2	708.5	895.0	1134.1	1443.3	1799.2	2142.0	2394.5
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	163.1	291.6	422.0	502.3	656.0	853.1	1108.0	1401.4	1684.0	1892.2
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.1	10.7	14.4	18.1	23.7	29.9	35.7	40.9	45.2	50.0
IN 1000 TONNES CUMULATED	29.4	71.4	134.5	215.7	320.1	454.0	618.1	809.7	1025.0	1263.1
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3375.4	4570.0	5215.4	5477.3	5970.0	6449.0	7032.9	7239.5	7171.2	8098.4
IN 1000 TONNES HM CUMUL.	34.4	54.2	79.0	105.4	133.8	164.6	198.2	233.9	270.3	308.1
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	26.3	78.7	188.8	331.2	406.1	399.5	390.4	353.6	265.5	117.9
IN 1000 TONNES HM CUMUL.	0.1	0.4	1.0	2.3	4.2	6.2	8.2	10.1	11.6	12.6

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	404.0	1197.3	3123.2	4088.7	3791.3	3820.1	3331.3	2978.8	2453.6	1489.3
IN 1000 TONNES HM CUMUL.	2.9	8.9	24.5	44.9	63.9	83.0	99.6	114.5	126.8	134.2
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	2379.3	3477.2	4692.8	5212.3	5509.7	5913.3	6228.0	6655.6	6771.3	6842.6
IN 1000 TONNES HM CUMUL.	21.2	35.8	56.4	81.8	108.5	137.5	167.8	200.5	234.2	267.5
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1964.2	2243.6	1465.9	889.9	1353.6	1705.8	2515.4	3312.6	4005.2	5148.5
IN 1000 TONNES HM CUMUL.	18.2	26.8	31.4	35.5	41.8	49.8	61.5	77.5	97.1	121.6
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	11.1	36.2	103.7	233.7	364.8	387.4	381.3	364.2	312.5	204.8
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.5	1.4	2.9	4.7	6.7	8.6	10.3	11.6

DETAILS ON FISSILE MATERIAL
****

1. PLUTONIUM
****

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	56.5	115.6	210.9	336.4	482.3	656.1	860.2	1090.8	1339.6	1598.1
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	1.2	3.7	8.9	16.2	20.5	20.2	19.7	17.7	13.2	5.7
IN TONNES CUMULATED	5.7	17.7	48.9	111.8	204.0	305.7	405.3	498.8	576.1	623.3
PLUTONIUM RECYCLED										
IN TONNES/YEAR	1.2	3.5	8.7	16.0	20.5	20.2	19.7	17.9	13.4	6.0
IN TONNES CUMULATED	5.4	16.8	47.0	108.6	200.6	302.3	402.1	496.1	574.3	622.7
PU USED IN REACTORS										
IN TONNES/YEAR	1.0	3.0	7.8	15.2	20.6	20.2	19.9	18.3	14.3	6.7
IN TONNES CUMULATED	4.5	14.2	40.8	98.4	188.7	290.7	391.0	486.6	568.2	620.7
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.3	0.9	2.0	3.2	3.5	3.4	3.3	2.8	1.8	0.6
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.0	17.2	28.3	39.4	51.1	58.0	63.6	67.4	67.6	63.8
IN TONNES CUMULATED	59.3	124.8	238.9	409.6	635.5	910.0	1216.7	1547.1	1886.2	2212.6
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	41.9	81.0	134.6	187.3	230.8	288.6	378.5	502.2	662.8	865.8

2. URANIUM-233
****

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	7.3	7.3	6.9	4.7	2.7	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	4.8	7.3	7.3	7.3	7.3	4.8	2.5	0.0	0.0
FBR OX. FUELED (EARLY)	0.5	1.6	4.6	10.3	15.3	15.0	14.8	13.6	10.6	5.0
LWR-OT CURRENT (PWR/BWR=2/1)	36.8	79.8	123.2	61.6	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	87.3	197.8	190.6	162.4	119.5	76.1	50.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	64.1	147.0	242.4	334.3	402.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	47.1	93.5	142.0	171.0	223.0	277.0	329.0	378.0	421.0	457.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	2.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (EARLY)	0.2	1.2	3.0	5.6	5.0	0.0	0.0	0.0	0.0	0.0
LWR-OT CURRENT (PWR/BWR=2/1)	28.2	42.9	43.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	26.1	50.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	64.1	82.9	95.4	91.9	67.7
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	61.2	60.5	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.2	17.4	23.1	26.5	29.8	35.2	39.8	43.2	45.2	49.5
IN 1000 TONNES CUMULATED	77.8	149.2	250.9	375.2	514.9	677.7	865.5	1073.0	1293.6	1530.9
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.2	17.4	23.1	25.1	26.9	31.8	34.1	40.8	43.3	48.3
IN 1000 TONNES CUMULATED	77.8	149.2	250.9	368.6	493.5	639.2	798.4	994.3	1205.1	1436.4
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	205.7	383.1	563.1	660.5	847.0	1045.1	1301.4	1596.3	1880.3	2089.6
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	172.9	312.9	455.0	535.3	689.0	864.0	1090.3	1350.8	1601.7	1786.5
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.1	10.7	15.7	19.4	24.3	29.3	33.2	36.2	38.2	41.7
IN 1000 TONNES CUMULATED	29.4	71.4	137.6	225.4	334.1	467.9	624.0	797.5	983.8	1183.1
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3375.4	4570.0	5915.4	5509.3	4678.6	5104.6	5806.8	6238.4	6349.7	7112.5
IN 1000 TONNES HM CUMUL.	34.4	54.2	79.9	108.2	134.2	158.4	185.5	215.7	247.5	280.8
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	26.3	78.7	188.8	331.2	406.1	399.5	390.4	353.6	265.5	117.9
IN 1000 TONNES HM CUMUL.	0.1	0.4	1.0	2.3	4.2	6.2	8.2	10.1	11.6	12.6

SCENARIO EUROPE LOW 13 LWR-OT-S2 310881 CODE SOPKA

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	404.0	1197.3	3123.2	4088.7	3791.3	3820.1	3638.4	2665.6	1957.8	1176.7
IN 1000 TONNES HM CUMUL.	2.9	8.9	24.5	44.9	63.9	83.0	101.2	114.5	124.3	130.2
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	2379.3	3477.2	4692.8	5522.0	5157.4	4440.4	4529.6	4956.8	5303.8	5883.1
IN 1000 TONNES HM CUMUL.	21.2	35.8	56.4	84.6	111.2	133.9	157.3	183.8	212.2	240.9
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1964.2	2243.6	1465.9	1199.6	1001.3	232.9	509.9	1927.0	3033.5	4501.6
IN 1000 TONNES HM CUMUL.	18.2	26.8	31.4	38.4	44.5	46.1	49.5	60.7	77.7	99.1
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	11.1	36.2	103.7	233.7	364.8	387.4	381.3	364.2	312.5	204.8
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.5	1.4	2.9	4.7	6.7	8.6	10.3	11.6
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	56.5	115.6	210.9	351.4	500.0	645.7	815.4	1007.8	1216.2	1430.6
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	1.2	3.7	8.9	16.2	20.5	20.2	19.7	17.7	13.2	5.7
IN TONNES CUMULATED	5.7	17.7	48.9	111.8	204.0	305.7	405.3	498.8	576.1	623.3
PLUTONIUM RECYCLED										
IN TONNES/YEAR	1.2	3.5	8.7	16.0	20.5	20.2	19.7	17.9	13.4	6.0
IN TONNES CUMULATED	5.4	16.8	47.0	108.6	200.6	302.3	402.1	496.1	574.3	622.7
PU USED IN REACTORS										
IN TONNES/YEAR	1.0	3.0	7.8	15.2	20.6	20.2	19.9	18.3	14.3	6.7
IN TONNES CUMULATED	4.5	14.2	40.8	98.4	188.7	290.7	391.0	486.6	568.2	620.7
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.3	0.9	2.0	3.2	3.5	3.4	3.3	2.8	1.8	0.6
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.0	17.2	28.3	41.3	50.3	51.2	54.4	56.8	56.6	54.3
IN TONNES CUMULATED	59.3	124.8	238.9	424.5	653.2	899.7	1171.8	1464.1	1762.8	2045.1
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	41.9	81.0	134.6	200.9	250.4	285.7	342.3	428.5	549.2	709.6
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO EUROPE LOW 14 LWR-OT-S3 310881 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	7.3	7.3	6.9	4.7	2.7	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	4.8	7.3	7.3	7.3	7.3	4.8	2.5	0.0	0.0
FBR OX. FUELED (EARLY)	0.5	1.6	4.6	10.2	15.2	15.0	14.8	13.6	10.6	5.0
LWR-OT CURRENT (PWR/BWR=2/1)	36.8	79.7	123.2	148.8	197.8	254.7	309.4	361.9	410.4	452.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	47.1	93.5	142.0	171.0	223.0	277.0	329.0	378.0	421.0	457.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	2.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (EARLY)	0.2	1.2	3.0	5.6	5.0	0.0	0.0	0.0	0.0	0.0
LWR-OT CURRENT (PWR/BWR=2/1)	28.2	42.9	43.4	26.1	50.0	64.1	82.9	95.4	91.9	67.7
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.2	17.4	21.4	26.7	33.9	41.8	49.3	55.8	60.7	67.4
IN 1000 TONNES CUMULATED	77.8	149.2	245.8	366.6	518.3	708.0	936.1	1198.9	1489.7	1810.4
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.2	17.4	21.4	25.4	30.9	38.4	45.8	52.3	57.9	65.6
IN 1000 TONNES CUMULATED	77.8	149.2	245.8	360.0	497.0	669.5	879.6	1125.2	1401.7	1713.8
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	220.0	414.2	611.2	723.1	937.6	1212.6	1568.3	1977.5	2371.8	2662.2
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	163.1	291.6	422.0	495.9	637.5	819.1	1053.8	1324.0	1584.3	1776.0
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.1	10.7	14.5	18.2	23.8	30.0	35.7	40.7	44.8	49.6
IN 1000 TONNES CUMULATED	29.4	71.4	134.7	216.4	321.3	455.7	619.9	810.9	1024.8	1260.8
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3375.4	4570.0	5282.5	5887.8	6956.8	8176.5	9687.8	10915.7	11745.0	13151.5
IN 1000 TONNES HM CUMUL.	34.4	54.2	79.2	106.8	138.7	176.3	220.8	272.3	329.3	391.2
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	26.3	78.7	188.8	331.2	406.1	399.5	390.4	353.6	265.5	117.9
IN 1000 TONNES HM CUMUL.	0.1	0.4	1.0	2.3	4.2	6.2	8.2	10.1	11.6	12.6

SCENARIO EUROPE LOW 14 LWR-OT-S3 310881 CODE SOPKA

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	404.0	1197.3	3123.2	4088.7	3791.3	3820.1	3331.3	2978.8	2453.6	1489.3
IN 1000 TONNES HM CUMUL.	2.9	8.9	24.5	44.9	63.9	83.0	99.6	114.5	126.8	134.2
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	2379.3	3477.2	4692.8	5437.2	6221.6	7285.2	8452.2	9880.3	10993.4	11645.0
IN 1000 TONNES HM CUMUL.	21.2	35.8	56.4	82.3	111.4	145.7	184.9	231.3	283.5	339.4
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1964.2	2243.6	1465.9	1114.8	2065.5	3077.7	4739.6	6537.3	8227.3	9950.9
IN 1000 TONNES HM CUMUL.	18.2	26.8	31.4	36.1	44.7	57.9	78.6	108.2	146.5	193.6
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	11.1	36.2	103.7	233.7	364.8	387.4	381.3	364.2	312.5	204.8
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.5	1.4	2.9	4.7	6.7	8.6	10.3	11.6
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	56.5	115.6	210.9	338.7	494.1	689.3	930.1	1216.4	1541.2	1892.0
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	1.2	3.7	8.9	16.2	20.5	20.2	19.7	17.7	13.2	5.7
IN TONNES CUMULATED	5.7	17.7	49.9	111.8	204.0	305.7	405.3	498.8	576.1	623.3
PLUTONIUM RECYCLED										
IN TONNES/YEAR	1.2	3.5	8.7	16.0	20.5	20.2	19.7	17.9	13.4	6.0
IN TONNES CUMULATED	5.4	16.8	47.0	108.6	200.6	302.3	402.1	496.1	574.3	622.7
PU USED IN REACTORS										
IN TONNES/YEAR	1.0	3.0	7.8	15.2	20.6	20.2	19.9	18.3	14.3	6.7
IN TONNES CUMULATED	4.5	14.2	40.8	98.4	188.7	290.7	391.0	486.6	568.2	620.7
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.3	0.9	2.0	3.2	3.5	3.4	3.3	2.8	1.8	0.6
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.0	17.2	28.3	40.3	54.0	63.6	72.6	80.6	84.8	83.4
IN TONNES CUMULATED	59.3	124.8	238.9	411.9	647.4	943.2	1286.5	1672.7	2087.8	2506.5
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	41.9	81.0	134.6	188.9	239.9	315.8	438.4	612.9	844.3	1136.1
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

B. Light Water Reactor With
Plutonium/Uranium Recycle Strategy
(low and high projection)

SCENARIO EUROPE HIGH 21 LWR-PU-REF 010981 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)
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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	7.3	7.3	6.9	4.7	2.7	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	4.8	7.3	7.3	7.3	7.3	4.8	2.5	0.0	0.0
FBR OX. FUELED (EARLY	0.5	1.6	6.1	13.5	21.5	21.3	21.0	19.9	15.4	8.0
LWR-OT CURRENT (PWR/BWR=2/1)	36.8	81.0	136.7	68.4	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	125.2	285.5	353.0	398.4	495.5	590.7	687.0
LWR-PU-BURNER	0.0	0.0	0.0	0.0	0.0	50.4	132.8	165.2	196.9	216.0
LWR-SELF-GEN. PU-RECYCLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	47.1	94.8	157.1	219.0	317.0	432.0	557.0	683.0	803.0	911.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD
****

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	2.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (EARLY	0.2	1.2	4.5	7.4	8.0	0.0	0.0	0.0	0.0	0.0
LWR-OT CURRENT (PWR/BWR=2/1)	28.2	44.2	55.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	57.3	93.0	74.7	73.5	141.3	150.9	153.5
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-PU-BURNER	0.0	0.0	0.0	0.0	0.0	50.4	82.4	32.4	31.7	19.1
LWR-SELF-GEN. PU-RECYCLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING
****

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	68.0	67.3	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS
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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.3	18.7	27.7	35.6	40.9	47.3	57.2	68.6	79.7	91.5
IN 1000 TONNES CUMULATED	78.2	153.5	270.5	429.3	618.8	839.1	1101.4	1415.9	1786.7	2215.3
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.3	18.7	27.7	35.6	39.1	40.1	44.2	59.2	68.6	76.8
IN 1000 TONNES CUMULATED	78.2	153.5	270.5	429.3	610.2	794.9	992.5	1259.9	1575.1	1930.0
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	205.7	388.1	616.2	829.7	1176.6	1455.1	1729.4	2256.6	2819.6	3392.1
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	172.9	317.0	497.2	673.2	959.2	1188.8	1414.9	1849.5	2313.7	2785.6
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.1	11.4	18.5	26.0	33.5	40.0	47.0	57.1	67.0	77.3
IN 1000 TONNES CUMULATED	29.5	73.4	148.4	259.7	408.6	592.4	810.0	1070.4	1380.7	1741.5
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3397.6	4813.4	6797.4	6962.7	6151.7	6606.5	8168.5	9688.0	11098.0	12846.8
IN 1000 TONNES HM CUMUL.	34.4	54.8	83.0	116.9	150.8	182.7	218.8	263.3	315.2	374.8
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	26.3	96.0	249.0	452.6	1284.4	2923.6	4161.1	4878.0	5323.5	5751.6
IN 1000 TONNES HM CUMUL.	0.1	0.4	1.2	3.0	6.9	17.1	35.3	57.9	83.5	111.1

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	217.5	817.8	2109.6	3251.7	4061.6	7005.5	10023.5	9424.5	9560.7	10382.7
IN 1000 TONNES HM CUMUL.	1.7	5.8	16.3	32.6	52.9	87.9	138.0	185.2	233.0	284.9
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	9.6	28.8	105.6	260.9	458.2	1178.7	2715.9	3950.3	4629.1	5061.4
IN 1000 TONNES HM CUMUL.	0.0	0.1	0.5	1.4	3.2	7.3	17.0	33.7	55.2	79.4
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	2379.3	3503.2	5001.8	6324.5	6534.4	7010.0	8942.9	11042.1	12981.8	15341.8
IN 1000 TONNES HM CUMUL.	21.2	35.9	57.3	88.6	120.6	152.8	193.7	246.5	310.2	382.8
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	2150.6	2649.1	2757.8	2764.9	1963.4	-1458.8	-4262.4	-2508.9	-1359.4	-163.8
IN 1000 TONNES HM CUMUL.	19.4	29.9	40.3	54.3	64.0	56.3	35.4	22.8	16.3	12.2
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	1.5	7.5	28.8	47.0	51.2	284.6	465.9	176.2	151.4	61.5
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.1	0.3	0.6	1.4	3.3	4.9	5.7	6.3
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	56.4	115.9	216.1	375.7	563.1	741.1	871.5	937.9	983.2	1030.0
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	1.2	4.4	11.8	22.0	48.4	108.1	166.1	194.2	212.7	225.5
IN TONNES CUMULATED	5.7	19.3	59.5	143.9	314.7	702.1	1393.6	2294.5	3313.2	4407.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	1.2	4.2	11.5	21.6	46.8	105.5	165.1	193.4	212.4	224.8
IN TONNES CUMULATED	5.4	18.2	56.9	139.5	303.6	679.2	1363.7	2260.0	3276.5	4367.6
PU USED IN REACTORS										
IN TONNES/YEAR	1.0	3.5	10.3	20.4	41.3	96.5	161.7	190.6	211.5	222.6
IN TONNES CUMULATED	4.5	15.0	48.8	125.4	271.4	609.6	1264.9	2146.0	3153.6	4236.4
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.3	1.1	2.6	4.4	11.0	23.0	30.0	34.4	36.6	39.4
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.0	17.4	31.9	50.8	68.3	97.1	147.5	181.5	206.9	225.2
IN TONNES CUMULATED	59.3	125.2	248.6	468.0	765.4	1170.5	1790.0	2627.2	3618.7	4709.3
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	44.3	87.5	154.8	266.7	372.1	355.2	221.4	99.4	32.0	0.0
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	7.3	7.3	6.9	4.7	2.7	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	4.8	7.3	7.3	7.3	7.3	4.8	2.5	0.0	0.0
FBR OX. FUELED (EARLY	0.5	1.6	4.6	10.3	15.3	15.0	14.8	13.6	10.6	5.0
LWR-OT CURRENT (PWR/BWR=2/1)	36.8	79.8	123.2	61.6	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	87.3	197.7	222.9	232.1	227.1	275.6	317.2
LWR-PU-BURNER	0.0	0.0	0.0	0.0	0.0	31.8	77.4	134.8	134.8	134.8
LWR-SELF-GEN. PU-RECYCLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	47.1	93.5	142.0	171.0	223.0	277.0	329.0	378.0	421.0	457.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	2.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (EARLY	0.2	1.2	3.0	5.6	5.0	0.0	0.0	0.0	0.0	0.0
LWR-OT CURRENT (PWR/BWR=2/1)	28.2	42.9	43.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	26.1	50.0	32.3	37.4	37.9	91.9	67.7
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-PU-BURNER	0.0	0.0	0.0	0.0	0.0	31.8	45.5	57.5	0.0	0.0
LWR-SELF-GEN. PU-RECYCLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	61.2	60.5	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.2	17.4	23.1	26.5	27.0	29.0	29.1	32.6	36.9	42.7
IN 1000 TONNES CUMULATED	77.8	149.2	250.9	375.2	507.5	647.6	792.9	948.3	1121.6	1321.0
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.2	17.4	23.1	26.5	27.0	24.7	18.2	25.1	29.7	33.7
IN 1000 TONNES CUMULATED	77.8	149.2	250.9	375.2	507.2	625.9	716.3	834.1	971.7	1126.0
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	205.7	383.1	563.1	660.5	847.0	967.3	1106.8	1248.2	1591.0	1843.5
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	172.9	312.9	455.0	535.3	689.0	788.2	903.2	1019.8	1302.4	1510.6
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.1	10.7	15.7	19.4	22.5	24.9	25.4	26.8	31.1	35.9
IN 1000 TONNES CUMULATED	29.4	71.4	137.6	225.4	330.5	449.1	574.7	705.2	850.1	1017.7
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3375.4	4570.0	5915.4	5509.3	4204.6	4105.1	4147.2	4775.7	5121.8	6048.9
IN 1000 TONNES HM CUMUL.	34.4	54.2	79.9	108.2	133.5	154.2	174.8	196.4	221.5	249.1
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	26.3	78.7	188.8	331.2	855.4	1796.3	3034.7	3549.1	3461.0	3313.5
IN 1000 TONNES HM CUMUL.	0.1	0.4	1.0	2.3	5.0	11.5	23.4	40.5	58.0	75.0

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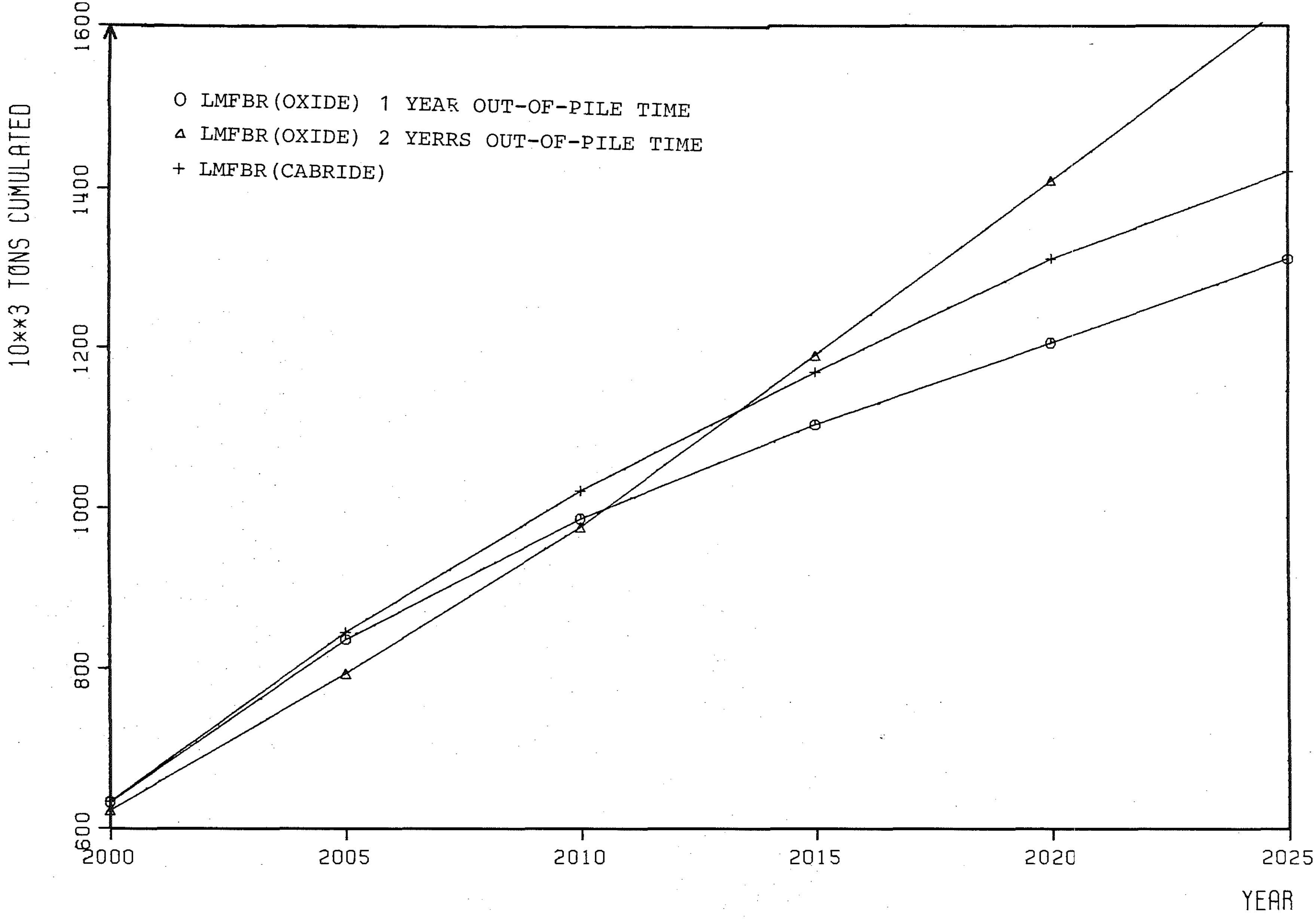
	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	217.5	653.3	1518.7	2289.2	4331.6	4570.1	7791.0	7515.4	6339.0	5502.0
IN 1000 TONNES HM CUMUL.	1.7	4.9	12.5	24.0	45.6	68.5	107.5	145.0	176.7	204.2
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	9.6	28.8	84.5	197.9	332.8	786.6	1673.8	2845.3	3392.4	3301.4
IN 1000 TONNES HM CUMUL.	0.0	0.1	0.4	1.1	2.5	5.3	11.4	22.7	38.3	55.1
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	2379.3	3477.2	4692.8	5522.0	5157.4	4783.3	5431.2	6555.5	7228.8	7987.3
IN 1000 TONNES HM CUMUL.	21.2	35.8	56.4	84.6	111.2	134.7	161.3	194.0	231.3	270.0
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	2150.6	2787.7	3070.5	2999.1	461.0	-752.5	-4290.5	-4123.8	-2483.4	-780.2
IN 1000 TONNES HM CUMUL.	19.4	30.7	43.3	59.3	62.7	60.0	40.4	22.8	12.0	6.6
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	1.5	7.5	19.2	35.8	32.0	179.1	256.8	318.7	-19.2	-35.8
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.1	0.2	0.4	0.9	2.0	3.5	4.2	4.1
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	56.4	115.5	210.7	350.7	498.8	624.8	713.6	728.1	683.7	630.2
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	1.2	3.7	8.9	16.2	32.8	67.9	115.0	145.1	140.6	133.1
IN TONNES CUMULATED	5.7	17.7	48.9	111.8	231.0	481.0	936.7	1593.9	2308.2	2992.5
PLUTONIUM RECYCLED										
IN TONNES/YEAR	1.2	3.5	8.7	16.0	31.8	66.4	113.2	145.3	140.8	133.4
IN TONNES CUMULATED	5.4	16.8	47.0	108.6	223.6	466.9	914.0	1569.5	2284.8	2970.3
PU USED IN REACTORS										
IN TONNES/YEAR	1.0	3.0	7.8	15.2	28.4	61.5	107.1	145.7	141.7	134.2
IN TONNES CUMULATED	4.5	14.2	40.8	98.4	202.0	423.8	842.8	1486.2	2204.8	2894.5
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.3	0.9	2.0	3.2	7.3	14.1	22.7	24.4	23.4	22.2
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.0	17.2	28.3	41.3	50.3	64.9	90.9	122.3	130.0	129.5
IN TONNES CUMULATED	59.3	124.8	238.9	424.5	653.2	933.8	1331.2	1878.5	2524.4	3178.2
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	44.3	88.9	158.6	265.0	363.1	375.4	283.3	131.0	37.3	5.0
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

C. Uranium/Plutonium Fuelled
LMFBR Strategies
(high projection)



NATURAL URANIUM DEMAND FØR ØECD-EURØPE
LMFBR STRATEGIES (HIGH CASE)
(100 % U235 CREDIT ASSUMED FRØM REPRØCESSED SPENT FUEL)

Note related to the previous figure (comparison of uranium requirements in different LMFBR strategy variants):

The priority shown in this figure is a logical and consistent result under the assumptions of the second "Yellow Book", especially to allow reprocessing of thermal spent fuel only as required to support advanced reactors. Thus, compared to an oxide-fuelled LMFBR the smaller amount of the fissile system inventory required for a carbide-fuelled LMFBR together with its higher breeding ratio leads to a smaller amount of fissile plutonium to be recovered from thermal spent fuel and to less possibilities for getting U-235 credit out of the reprocessing procedure. More U-235 is kept in the unreprocessed spent fuel if a more efficient LMFBR is used.

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	7.3	7.3	6.9	4.7	2.7	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	4.8	7.3	7.3	7.3	7.3	4.8	2.5	0.0	0.0
LWR-OT CURRENT (PWR/BWR=2/1)	36.8	81.0	136.7	193.6	285.5	358.5	341.2	296.9	255.5	198.3
FBR OX. FUELED (EARLY)	0.5	1.6	6.1	13.5	21.5	21.2	21.0	19.8	15.3	8.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	45.0	190.0	363.7	532.1	704.7
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	47.1	94.8	157.1	219.0	317.0	432.0	557.0	683.0	803.0	911.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	2.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT CURRENT (PWR/BWR=2/1)	28.2	44.2	55.7	57.3	93.0	80.1	10.9	0.0	14.3	0.0
FBR OX. FUELED (EARLY)	0.2	1.2	4.5	7.3	8.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	45.0	145.0	173.7	168.4	172.6
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.3	18.7	26.2	36.8	47.3	49.1	44.6	39.0	31.8	22.3
IN 1000 TONNES CUMULATED	78.2	153.5	265.7	424.1	634.1	873.5	1107.3	1316.6	1493.4	1628.5
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.3	18.7	26.2	36.8	47.1	41.7	27.9	20.7	16.8	16.2
IN 1000 TONNES CUMULATED	78.2	153.5	265.7	424.1	633.0	835.7	986.1	1103.6	1205.5	1310.1
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	220.0	419.7	669.5	915.1	1314.1	1657.7	1704.5	1704.5	1765.8	1765.8
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	163.1	295.3	460.5	622.7	886.0	1112.9	1143.7	1143.7	1184.2	1184.2
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.1	11.4	17.3	24.8	33.5	37.4	34.6	30.3	25.1	18.5
IN 1000 TONNES CUMULATED	29.5	73.4	145.3	250.4	396.2	574.0	754.2	916.4	1054.9	1164.1
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3397.6	4813.4	6166.8	7783.9	9510.9	9647.4	8884.2	7867.9	6471.5	4875.2
IN 1000 TONNES HM CUMUL.	34.4	54.8	82.3	116.7	160.1	208.9	255.4	297.1	333.1	361.5
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	24.3	88.1	236.1	438.5	1196.8	3939.1	8722.9	13876.9	18913.8	24451.0
IN 1000 TONNES HM CUMUL.	0.1	0.4	1.1	2.8	6.3	17.7	48.9	105.5	187.4	295.3

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	140.1	530.3	1465.4	2295.5	4869.1	7151.0	14563.6	15831.3	10840.7	5267.1
IN 1000 TONNES HM CUMUL.	1.1	3.8	11.1	22.6	46.9	82.7	155.5	234.6	288.8	315.2
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	10.2	31.8	117.1	279.7	478.7	1408.3	4636.1	9434.1	14382.9	19276.1
IN 1000 TONNES HM CUMUL.	0.0	0.2	0.5	1.5	3.4	8.1	23.2	58.4	118.0	202.2
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	2379.3	3503.2	5001.8	6473.7	8343.4	11015.3	14498.4	18590.2	22538.4	26031.7
IN 1000 TONNES HM CUMUL.	21.2	35.9	57.3	86.6	123.6	172.4	236.2	319.4	422.7	544.1
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	2228.1	2936.6	3402.0	3870.2	2964.8	2258.5	-5339.8	-7436.8	-3410.7	755.5
IN 1000 TONNES HM CUMUL.	20.0	31.9	45.6	62.3	72.9	80.7	54.4	19.9	5.6	12.8
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.9	4.5	17.3	28.2	30.7	197.5	638.6	761.5	725.4	732.9
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.1	0.2	0.3	0.9	3.0	6.5	10.2	13.9

DETAILS ON FISSILE MATERIAL

1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	56.5	116.0	216.4	364.7	569.0	854.7	1250.7	1788.3	2483.9	3320.4
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	1.0	3.8	10.8	20.9	47.5	155.1	381.3	634.6	879.5	1140.1
IN TONNES CUMULATED	4.9	16.1	51.8	131.0	290.1	765.9	2098.1	4639.4	8423.2	13460.9
PLUTONIUM RECYCLED										
IN TONNES/YEAR	1.0	3.8	10.8	20.9	47.5	155.1	381.3	634.6	879.5	1140.1
IN TONNES CUMULATED	4.9	16.1	51.8	131.0	290.1	765.9	2098.1	4639.4	8423.2	13460.9
PU USED IN REACTORS										
IN TONNES/YEAR	1.0	3.5	10.3	20.4	44.2	144.4	368.5	622.4	867.2	1125.2
IN TONNES CUMULATED	4.5	14.7	48.4	125.0	273.2	710.8	1983.4	4462.5	8184.6	13150.1
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	-0.0	-0.0	-0.0	-0.0	-0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.0	17.4	31.9	50.7	74.9	150.9	366.6	649.3	930.5	1203.9
IN TONNES CUMULATED	59.3	125.2	248.6	456.4	770.3	1336.7	2633.0	5176.1	9130.2	14467.8
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	48.9	98.1	176.0	290.6	427.4	471.5	299.6	77.7	0.0	46.5

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	7.3	7.3	6.9	4.7	2.7	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	4.8	7.3	7.3	7.3	7.3	4.8	2.5	0.0	0.0
LWR-OT CURRENT (PWR/BWR=2/1)	36.8	81.0	136.7	192.6	285.5	358.5	341.2	411.2	427.9	370.6
FBR OX. FUELED (EARLY)	0.5	1.6	6.1	13.5	21.5	21.2	21.0	19.8	15.3	8.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	45.0	190.0	249.5	359.8	532.4
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	47.1	94.6	157.1	219.0	317.0	432.0	557.0	683.0	803.0	911.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	2.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT CURRENT (PWR/BWR=2/1)	28.2	44.2	55.7	57.3	93.0	80.1	10.9	114.2	72.4	0.0
FBR OX. FUELED (EARLY)	0.2	1.2	4.5	7.3	8.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	45.0	145.0	59.5	110.3	172.6
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.3	18.7	26.2	36.8	47.3	49.1	55.4	60.0	55.1	59.2
IN 1000 TONNES CUMULATED	78.2	153.5	265.7	424.1	634.1	873.5	1136.7	1424.3	1710.7	1999.5
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.3	18.7	26.2	36.8	45.1	35.2	39.2	45.3	41.5	45.4
IN 1000 TONNES CUMULATED	78.2	153.5	265.7	424.1	622.9	793.0	975.6	1189.8	1408.1	1627.8
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	220.0	419.7	669.5	915.1	1214.1	1657.7	1704.5	2194.5	2595.2	2505.2
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	163.1	295.3	460.5	622.7	886.0	1112.5	1143.7	1467.2	1672.3	1672.3
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.1	11.4	17.3	24.8	33.5	37.4	39.8	44.7	42.9	42.7
IN 1000 TONNES CUMULATED	29.5	73.4	145.3	250.4	356.2	574.0	766.6	977.9	1197.1	1410.5
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3397.6	4813.4	6166.8	7783.9	9510.9	9647.4	10830.0	11827.7	10952.4	11802.8
IN 1000 TONNES HM CUMUL.	34.4	54.8	82.3	116.7	160.1	208.9	258.7	315.9	373.8	428.8
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	26.3	96.0	249.0	452.6	1286.3	4228.7	7257.3	9823.5	14024.1	17355.8
IN 1000 TONNES HM CUMUL.	0.1	0.4	1.2	3.0	6.9	15.7	45.3	91.4	150.4	230.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	217.5	617.6	2109.6	3251.7	4505.3	12816.1	14144.3	11526.6	10878.1	11018.5
IN 1000 TONNES HM CUMUL.	1.7	5.8	16.3	32.6	55.1	119.2	189.9	247.5	301.9	357.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	9.6	28.8	105.6	260.9	458.2	1409.0	4636.7	7254.4	9925.7	14228.1
IN 1000 TONNES HM CUMUL.	0.0	0.1	0.5	1.4	3.2	7.9	23.0	52.7	95.7	156.1
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	2379.3	3503.2	5001.8	6473.7	8343.4	11015.3	14498.4	18186.3	21828.0	25269.9
IN 1000 TONNES HM CUMUL.	21.2	35.9	57.3	86.6	123.6	172.4	236.2	318.4	418.9	536.6
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	2150.6	2649.1	2757.8	2914.0	3328.6	-3406.6	-4920.5	-849.5	566.6	-690.8
IN 1000 TONNES HM CUMUL.	19.4	29.9	40.3	52.3	64.7	44.2	20.0	12.7	14.0	13.2
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	1.5	7.5	28.8	47.0	51.2	196.8	638.0	254.8	457.5	714.1
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.1	0.3	0.6	1.2	3.3	5.5	7.3	10.3

DETAILS ON FISSILE MATERIAL

1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	56.4	115.9	216.1	364.1	567.9	849.9	1235.3	1756.7	2416.0	3195.1
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	1.2	4.4	11.8	22.0	54.2	176.5	342.8	457.2	648.8	834.3
IN TONNES CUMULATED	5.7	19.3	59.5	143.9	328.8	965.4	2202.0	4195.0	6951.2	10673.6
PLUTONIUM RECYCLED										
IN TONNES/YEAR	1.2	4.2	11.5	21.6	51.9	169.2	339.9	451.8	640.4	831.3
IN TONNES CUMULATED	5.4	18.2	56.9	139.5	315.5	848.4	2138.4	4107.5	6825.7	10526.5
PU USED IN REACTORS										
IN TONNES/YEAR	1.0	3.5	10.3	20.4	44.2	144.4	329.9	433.6	611.9	821.3
IN TONNES CUMULATED	4.5	15.0	48.8	125.4	277.8	725.6	1931.4	3828.0	6427.0	10035.5
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.3	1.1	2.6	4.4	13.3	117.0	63.6	87.4	125.5	147.2
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.0	17.4	31.9	50.7	74.9	150.9	366.6	506.5	679.2	938.8
IN TONNES CUMULATED	59.3	125.2	248.6	456.4	770.3	1336.6	2633.0	4818.9	7787.6	11834.0
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	44.3	87.5	154.8	255.1	355.0	208.8	49.3	0.0	0.0	0.0

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	7.3	7.3	6.9	4.7	2.7	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	4.8	7.3	7.3	7.3	7.3	4.8	2.5	0.0	0.0
LWR-OT CURRENT (PWR/BWR=2/1)	36.8	81.0	136.7	193.6	285.5	358.5	341.2	296.9	241.2	184.0
FBR OX. FUELED (EARLY)	0.5	1.6	6.1	13.5	21.5	21.2	21.0	19.8	15.3	8.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	45.0	190.0	363.7	546.4	719.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	47.1	94.8	157.1	219.0	317.0	432.0	557.0	683.0	803.0	911.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	2.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT CURRENT (PWR/BWR=2/1)	28.2	44.2	55.7	57.3	93.0	80.1	10.9	0.0	0.0	0.0
FBR OX. FUELED (EARLY)	0.2	1.2	4.5	7.3	8.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	45.0	145.0	173.7	182.7	172.6
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.3	18.7	26.2	36.8	47.3	49.1	44.6	37.7	29.9	20.3
IN 1000 TONNES CUMULATED	78.2	153.5	265.7	424.1	634.1	873.5	1107.3	1312.[illegible]	1481.8	1607.2
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.3	18.7	26.2	36.8	47.3	43.4	33.0	26.3	24.4	16.9
IN 1000 TONNES CUMULATED	78.2	153.5	265.7	424.1	634.1	845.1	1020.9	1169.4	1310.8	1419.0
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	220.0	419.7	669.5	915.1	1314.1	1657.7	1704.5	1704.5	1704.5	1704.5
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	163.1	295.3	460.5	622.7	886.0	1112.9	1143.7	1143.7	1143.7	1143.7
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.1	11.4	17.3	24.8	33.5	37.4	34.6	29.6	23.7	17.0
IN 1000 TONNES CUMULATED	29.5	73.4	145.3	250.4	396.2	574.0	754.2	914.8	1048.0	1149.8
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3397.6	4813.4	6166.8	7783.9	9510.9	9647.4	8884.2	7624.3	6099.8	4503.5
IN 1000 TONNES HM CUMUL.	34.4	54.8	82.3	116.7	160.1	208.9	255.4	296.7	331.0	357.5
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	24.3	88.1	236.1	438.5	1231.1	4099.3	9064.4	14614.5	20079.8	25834.5
IN 1000 TONNES HM CUMUL.	0.1	0.4	1.1	2.8	6.4	18.1	50.6	109.7	196.6	310.8

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	140.1	530.3	1465.4	2295.5	4610.7	5795.9	10169.7	8644.9	3865.0	2050.3
IN 1000 TONNES HM CUMUL.	1.1	3.8	11.1	22.6	45.6	74.6	125.4	168.7	188.0	198.3
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	10.2	31.8	117.1	279.7	478.7	1437.6	4775.4	9737.0	15138.6	20355.0
IN 1000 TONNES HM CUMUL.	0.0	0.2	0.5	1.5	3.4	8.2	23.7	60.0	122.3	211.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	2379.3	3503.2	5001.8	6473.7	8243.4	11051.3	14659.4	18919.1	23098.8	26779.4
IN 1000 TONNES HM CUMUL.	21.2	35.9	57.3	86.6	123.6	172.5	236.7	321.2	426.8	551.4
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	2228.1	2936.6	3402.0	3870.2	3223.3	3613.5	-946.0	-250.3	3279.3	3615.2
IN 1000 TONNES HM CUMUL.	20.0	31.9	45.6	62.3	74.2	88.8	84.5	85.8	105.8	127.4
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.9	4.5	17.3	28.2	30.7	204.2	660.3	787.6	815.8	758.8
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.1	0.2	0.3	0.9	3.1	6.7	10.7	14.7
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	56.5	116.0	216.4	364.7	569.1	862.4	1301.7	1952.5	2755.1	3563.8
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	1.0	3.8	10.8	20.9	44.3	133.3	320.5	534.8	749.1	963.2
IN TONNES CUMULATED	4.9	16.1	51.8	131.0	284.5	703.2	1830.6	3966.7	7178.8	11450.1
PLUTONIUM RECYCLED										
IN TONNES/YEAR	1.0	3.8	10.8	20.9	44.3	133.3	320.5	534.8	749.1	963.2
IN TONNES CUMULATED	4.9	16.1	51.8	131.0	284.5	703.2	1830.7	3966.7	7178.9	11450.1
PU USED IN REACTORS										
IN TONNES/YEAR	1.0	3.5	10.3	20.4	41.6	124.5	310.0	523.9	739.0	950.9
IN TONNES CUMULATED	4.5	14.7	48.4	125.0	269.9	658.5	1737.0	3819.2	6979.1	11194.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.0	17.4	31.9	50.7	74.9	145.3	341.6	598.3	822.9	1021.0
IN TONNES CUMULATED	59.3	125.2	248.6	456.4	770.3	1322.7	2542.8	4896.1	8453.9	13065.0
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	48.9	98.1	176.0	290.6	433.0	523.1	492.0	506.7	642.2	788.2
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Uranium/Plutonium Fuelled
LMFBR Strategies
(low projection)

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	7.3	7.3	6.9	4.7	2.7	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	4.8	7.3	7.3	7.3	7.3	4.8	2.5	0.0	0.0
LWR-OT CURRENT (PWR/BWR=2/1)	36.8	79.7	123.2	148.8	197.8	229.7	207.4	164.5	121.1	95.0
FBR OX. FUELED (EARLY)	0.5	1.6	4.6	10.2	15.2	15.0	14.8	13.6	10.6	5.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	25.0	102.0	197.4	289.3	357.0
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	47.1	93.5	142.0	171.0	223.0	277.0	329.0	378.0	421.0	457.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	2.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT CURRENT (PWR/BWR=2/1)	28.2	42.9	43.4	26.1	50.0	39.1	5.9	0.0	0.0	0.0
FBR OX. FUELED (EARLY)	0.2	1.2	3.0	5.6	5.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	25.0	77.0	95.4	91.9	67.7
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.2	17.4	21.4	26.7	31.5	31.1	26.5	20.3	15.1	10.4
IN 1000 TONNES CUMULATED	77.8	149.2	245.8	366.6	511.9	667.8	811.8	929.0	1017.6	1081.4
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.2	17.4	21.4	26.7	31.5	28.2	17.6	10.4	9.0	8.6
IN 1000 TONNES CUMULATED	77.8	149.2	245.8	366.6	511.9	653.4	753.0	820.6	878.6	933.5
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	220.0	414.2	611.2	723.1	937.6	1105.4	1130.7	1130.7	1130.7	1130.7
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	163.1	291.6	422.0	495.9	637.5	748.3	765.0	765.0	765.0	765.0
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.1	10.7	14.5	18.2	22.6	24.0	20.9	16.2	11.9	8.8
IN 1000 TONNES CUMULATED	29.4	71.4	134.7	216.4	318.6	435.3	547.4	640.2	710.6	762.3
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3375.4	4570.0	5282.5	5887.8	6530.9	6214.7	5410.6	4217.7	3069.9	2319.2
IN 1000 TONNES HM CUMUL.	34.4	54.2	79.2	106.8	138.0	170.3	199.4	223.5	241.7	255.2
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	24.3	73.4	178.9	322.4	752.9	2224.2	4804.9	7613.3	9979.1	12204.6
IN 1000 TONNES HM CUMUL.	0.1	0.3	0.9	2.2	4.6	11.2	28.5	59.6	104.0	159.1

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	140.1	436.8	1041.9	1628.1	3038.5	6139.2	7816.6	8558.4	5275.5	1530.8
IN 1000 TONNES HM CUMUL.	1.1	3.3	8.5	16.6	31.8	62.5	101.6	144.4	170.8	178.4
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	10.2	31.8	92.2	212.2	345.6	866.1	2588.6	5190.6	7883.8	10025.5
IN 1000 TONNES HM CUMUL.	0.0	0.2	0.5	1.2	2.6	5.6	14.3	33.7	66.5	111.3
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	2379.3	3477.2	4692.8	5437.2	6221.6	7373.6	8835.0	10668.5	12190.8	13163.1
IN 1000 TONNES HM CUMUL.	21.2	35.8	56.4	82.3	111.4	145.9	186.3	235.6	292.8	355.5
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	2228.1	3004.1	3547.2	3575.3	2818.3	258.9	-1908.9	-3496.7	-1362.2	1329.7
IN 1000 TONNES HM CUMUL.	20.0	32.3	47.3	64.3	76.7	77.1	68.7	53.9	49.9	58.5
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.9	4.5	11.5	21.5	19.2	109.3	338.7	416.2	393.8	277.1
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.1	0.1	0.2	0.6	1.7	3.6	5.6	7.3
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	56.5	115.6	210.9	338.5	493.8	689.8	938.8	1253.1	1628.1	2023.0
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	1.0	3.2	8.2	15.5	30.9	89.0	210.3	348.4	470.3	572.7
IN TONNES CUMULATED	4.9	15.2	43.1	102.5	211.9	495.5	1238.0	2635.7	4689.9	7290.1
PLUTONIUM RECYCLED										
IN TONNES/YEAR	1.0	3.2	8.2	15.5	30.9	89.0	210.3	348.4	470.3	572.7
IN TONNES CUMULATED	4.9	15.2	43.1	102.5	211.9	495.5	1238.0	2635.7	4689.9	7290.1
PU USED IN REACTORS										
IN TONNES/YEAR	1.0	3.0	7.8	15.2	29.0	83.3	203.3	341.8	465.7	566.3
IN TONNES CUMULATED	4.5	14.1	40.5	98.1	201.4	464.7	1174.9	2538.4	4564.4	7135.9
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	-0.0	-0.0	-0.0	-0.0	-0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.0	17.2	28.3	40.3	54.0	94.9	208.0	359.3	504.6	603.5
IN TONNES CUMULATED	59.3	124.8	238.9	411.9	647.4	1021.3	1781.2	3202.6	5364.1	8132.6
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	48.9	98.7	176.8	280.8	396.4	461.3	407.0	311.6	288.1	345.1
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	7.3	7.3	6.9	4.7	2.7	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	4.8	7.3	7.3	7.3	7.3	4.8	2.5	0.0	0.0
LWR-OT CURRENT (PWR/BWR=2/1)	36.8	79.7	123.2	148.8	197.8	229.7	207.4	164.5	165.0	138.9
FBR OX. FUELED (EARLY)	0.5	1.6	4.6	10.2	15.2	15.0	14.8	13.6	10.6	5.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	25.0	102.0	197.4	245.4	313.1
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	47.1	93.5	142.0	171.0	223.0	277.0	329.0	378.0	421.0	457.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	2.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT CURRENT (PWR/BWR=2/1)	28.2	42.9	43.4	26.1	50.0	39.1	5.9	0.0	43.9	0.0
FBR OX. FUELED (EARLY)	0.2	1.2	3.0	5.6	5.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	25.0	77.0	95.4	48.0	67.7
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.2	17.4	21.4	26.7	31.5	31.1	26.5	24.5	21.1	16.3
IN 1000 TONNES CUMULATED	77.8	149.2	245.8	366.6	511.9	667.8	811.8	940.3	1053.3	1146.8
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.2	17.4	21.4	26.7	31.3	25.1	13.7	10.0	14.0	12.2
IN 1000 TONNES CUMULATED	77.8	149.2	245.8	366.6	510.6	636.6	716.4	772.4	850.1	922.9
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	220.0	414.2	611.2	723.1	937.6	1105.4	1130.7	1130.7	1319.2	1319.2
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	163.1	291.6	422.0	495.9	637.5	748.3	765.0	765.0	889.4	889.4
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.1	10.7	14.5	18.2	22.6	24.0	20.9	18.2	16.5	13.3
IN 1000 TONNES CUMULATED	29.4	71.4	134.7	216.4	318.6	435.3	547.4	644.9	731.8	806.2
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3375.4	4570.0	5282.5	5887.8	6530.9	6214.7	5410.6	4966.3	4212.3	3461.6
IN 1000 TONNES HM CUMUL.	34.4	54.2	79.2	106.8	138.0	170.3	199.4	224.8	248.3	267.5
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	26.3	78.7	188.8	331.2	802.5	2377.8	4993.6	7095.2	8773.2	11046.4
IN 1000 TONNES HM CUMUL.	0.1	0.4	1.0	2.3	4.9	12.3	30.6	61.3	100.8	150.1

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	217.5	653.3	1518.7	2289.2	4513.5	6026.3	11308.0	11407.7	5356.3	3087.2
IN 1000 TONNES HM CUMUL.	1.7	4.9	12.5	24.0	46.6	76.7	133.2	190.3	217.0	232.5
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	9.6	28.8	84.5	197.9	332.8	866.8	2589.2	5193.6	7051.8	8748.0
IN 1000 TONNES HM CUMUL.	0.0	0.1	0.4	1.1	2.5	5.5	14.1	33.6	64.2	103.7
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	2379.3	3477.2	4692.8	5437.2	6221.6	7373.6	8835.0	10668.5	12035.5	12968.9
IN 1000 TONNES HM CUMUL.	21.2	35.8	56.4	82.3	111.4	145.9	186.3	235.6	292.4	354.2
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	2150.6	2787.7	3070.5	2914.3	1343.3	371.8	-5400.3	-6346.1	-565.0	871.0
IN 1000 TONNES HM CUMUL.	19.4	30.7	43.3	57.0	62.0	63.0	37.1	8.0	5.9	11.6
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	1.5	7.5	19.2	35.8	32.0	108.6	338.1	413.2	192.3	262.7
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.1	0.2	0.4	0.8	1.9	3.8	5.3	6.5
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	56.4	115.5	210.7	338.0	493.0	687.2	929.8	1234.1	1606.5	2029.2
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	1.2	3.7	8.9	16.2	34.5	100.4	224.2	337.0	414.5	520.4
IN TONNES CUMULATED	5.7	17.7	48.9	111.8	235.6	565.6	1374.5	2784.1	4660.0	6994.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	1.2	3.5	8.7	16.0	33.3	96.5	219.5	334.7	411.3	516.0
IN TONNES CUMULATED	5.4	16.8	47.0	108.6	227.5	541.5	1327.8	2722.7	4583.8	6897.6
PU USED IN REACTORS										
IN TONNES/YEAR	1.0	3.0	7.8	15.2	29.0	83.3	203.3	326.9	400.6	501.2
IN TONNES CUMULATED	4.5	14.2	40.8	98.4	204.0	472.5	1184.6	2521.3	4335.3	6584.2
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.3	0.9	2.0	3.2	8.1	24.1	46.8	61.4	76.2	96.4
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.0	17.2	28.3	40.3	54.0	94.9	208.0	359.3	453.3	551.6
IN TONNES CUMULATED	59.3	124.8	238.9	411.9	647.4	1021.3	1781.2	3202.4	5235.5	7745.7
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	44.3	88.9	158.6	253.1	347.8	350.5	185.2	6.6	0.0	41.1
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	7.3	7.3	6.9	4.7	2.7	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	4.8	7.3	7.3	7.3	7.3	4.8	2.5	0.0	0.0
LWR-OT CURRENT (PWR/BWR=2/1)	36.8	79.7	123.2	148.8	197.8	229.7	207.4	164.5	121.1	95.0
FBR OX. FUELED (EARLY)	0.5	1.6	4.6	10.2	15.2	15.0	14.8	13.6	10.6	5.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	25.0	102.0	197.4	289.3	357.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	47.1	93.5	142.0	171.0	223.0	277.0	329.0	378.0	421.0	457.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	2.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT CURRENT (PWR/BWR=2/1)	28.2	42.9	43.4	26.1	50.0	39.1	5.9	0.0	0.0	0.0
FBR OX. FUELED (EARLY)	0.2	1.2	3.0	5.6	5.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	25.0	77.0	95.4	91.9	67.7
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.2	17.4	21.4	26.7	31.5	31.1	26.5	20.3	15.1	10.4
IN 1000 TONNES CUMULATED	77.8	149.2	245.8	366.6	511.9	667.8	811.8	929.0	1017.6	1081.4
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.2	17.4	21.4	26.7	31.5	29.3	20.4	12.7	11.7	8.1
IN 1000 TONNES CUMULATED	77.8	149.2	245.8	366.6	511.9	658.5	771.9	851.0	922.7	974.8
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	220.0	414.2	611.2	723.1	937.6	1105.4	1130.7	1130.7	1130.7	1130.7
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	163.1	291.6	422.0	495.9	637.5	748.3	765.0	765.0	765.0	765.0
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.1	10.7	14.5	18.2	22.6	24.0	20.9	16.2	11.9	8.8
IN 1000 TONNES CUMULATED	29.4	71.4	134.7	216.4	318.6	435.3	547.4	640.2	710.6	762.3
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3375.4	4570.0	5282.5	5887.8	6530.9	6214.7	5410.6	4217.7	3069.9	2319.2
IN 1000 TONNES HM CUMUL.	34.4	54.2	79.2	106.8	138.0	170.3	199.4	223.5	241.7	255.2
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	24.3	73.4	178.9	322.4	772.0	2310.5	4989.9	7900.6	10349.0	12666.8
IN 1000 TONNES HM CUMUL.	0.1	0.3	0.9	2.2	4.6	11.5	29.5	61.7	107.7	164.9

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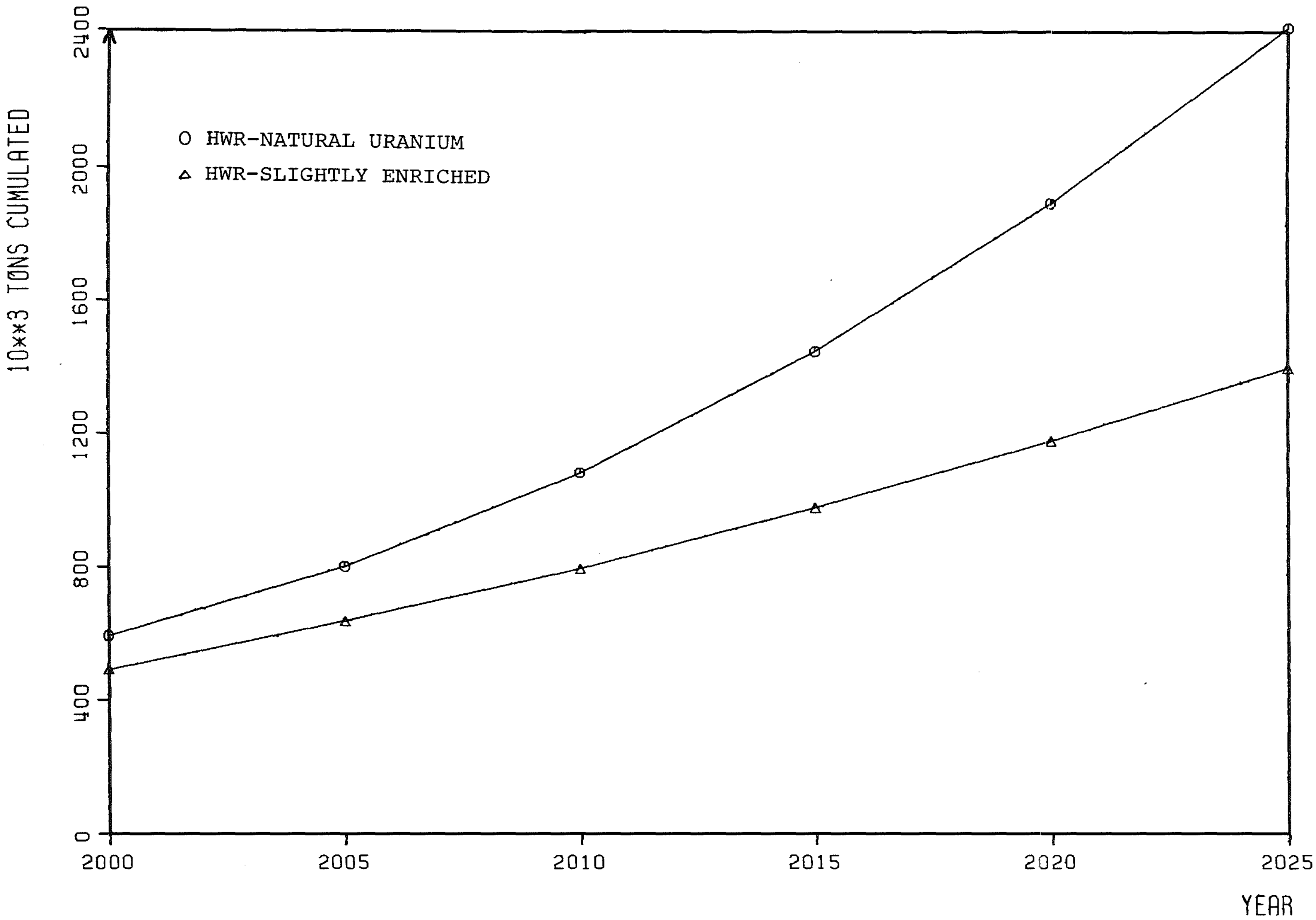
	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	140.1	436.8	1041.9	1628.1	2727.7	5567.5	5448.7	5371.5	2913.4	1078.1
IN 1000 TONNES HM CUMUL.	1.1	3.3	8.5	16.6	30.3	58.1	85.4	112.2	126.8	132.2
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	10.2	31.8	92.2	212.2	345.6	882.4	2663.7	5354.6	8140.9	10358.8
IN 1000 TONNES HM CUMUL.	0.0	0.2	0.5	1.2	2.6	5.7	14.6	34.6	68.4	114.7
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	2379.3	3477.2	4692.8	5437.2	6221.6	7393.6	8921.6	10846.8	12461.8	13506.6
IN 1000 TONNES HM CUMUL.	21.2	35.8	56.4	82.3	111.4	145.9	186.6	236.6	294.9	359.1
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	2228.1	3004.1	3547.2	3575.3	3129.1	830.6	458.9	-309.8	999.8	1782.5
IN 1000 TONNES HM CUMUL.	20.0	32.3	47.3	64.3	78.2	81.5	85.0	86.0	93.9	104.7
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.9	4.5	11.5	21.5	19.2	113.0	350.2	430.5	407.5	287.2
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.1	0.1	0.2	0.6	1.7	3.7	5.8	7.6
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	56.5	115.6	210.9	338.5	493.8	694.1	966.5	1317.4	1695.8	2048.6
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	1.0	3.2	8.2	15.5	29.1	77.2	177.5	291.5	391.7	475.2
IN TONNES CUMULATED	4.9	15.2	43.1	102.5	208.8	461.2	1093.1	2266.5	3980.9	6142.2
PLUTONIUM RECYCLED										
IN TONNES/YEAR	1.0	3.2	8.2	15.5	29.1	77.2	177.5	291.5	391.7	475.2
IN TONNES CUMULATED	4.9	15.2	43.1	102.5	208.8	461.2	1093.1	2266.5	3980.9	6142.2
PU USED IN REACTORS										
IN TONNES/YEAR	1.0	3.0	7.8	15.2	27.6	72.5	171.7	286.1	388.0	469.9
IN TONNES CUMULATED	4.5	14.1	40.5	98.1	199.6	435.8	1041.4	2186.8	3878.5	6017.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.0	17.2	28.3	40.3	54.0	91.8	194.6	319.5	426.9	503.7
IN TONNES CUMULATED	59.3	124.8	238.9	411.9	647.4	1013.6	1732.2	3020.5	4888.0	7212.7
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	48.9	98.7	176.8	280.8	399.6	489.6	511.1	524.1	575.3	652.7
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

D. Heavy Water Reactor
Once-Through Strategies
(high projection)



NATURAL URANIUM DEMAND FOR OECD-EUROPE
HWR - STRATEGIES (HIGH CASE)
(100 % U235 CREDIT ASSUMED FROM REPROCESSED SPENT FUEL)

SCENARIO EUROPE HIGH 41 HWR-OT-REF 020981 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	7.3	7.3	6.9	4.7	2.7	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	4.8	7.3	7.3	7.3	7.3	4.8	2.5	0.0	0.0
FBR OX. FUELED (EARLY)	0.5	1.6	6.1	13.5	21.5	21.2	21.0	19.8	15.3	8.0
LWR-OT CURRENT (PWR/BWR=2/1)	36.8	81.0	136.7	68.4	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	125.2	285.5	384.5	379.2	335.0	279.3	222.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	19.0	152.0	325.7	508.4	681.0
HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	47.1	94.8	157.1	219.0	317.0	432.0	557.0	683.0	803.0	911.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	2.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (EARLY)	0.2	1.2	4.5	7.3	8.0	0.0	0.0	0.0	0.0	0.0
LWR-OT CURRENT (PWR/BWR=2/1)	28.2	44.2	55.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	57.3	93.0	106.1	22.9	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	19.0	133.0	173.7	182.7	172.6
HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	68.0	67.3	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.3	18.7	27.7	35.6	44.1	53.8	68.1	83.8	99.1	113.4
IN 1000 TONNES CUMULATED	78.2	153.5	270.5	429.3	627.6	871.0	1175.3	1554.9	2012.1	2543.5
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.3	18.7	27.7	33.1	39.8	46.5	63.5	80.4	96.3	111.6
IN 1000 TONNES CUMULATED	78.2	153.5	270.5	416.9	593.9	801.0	1082.5	1445.0	1888.0	2410.6
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	205.7	388.1	616.2	829.7	1176.6	1642.9	2221.7	2866.1	3543.9	4184.3
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	172.9	317.0	497.2	673.2	959.2	1355.9	1919.8	2564.2	3242.0	3882.4
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	2873.6	20259.3	27425.6	30106.9	29967.9	36784.8
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	3.5	39.4	150.8	292.9	445.0	604.9
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.1	11.4	18.5	26.0	34.8	41.2	39.2	34.1	28.0	21.3
IN 1000 TONNES CUMULATED	29.5	73.4	148.4	259.7	411.9	602.0	803.0	986.1	1141.4	1264.7
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3397.6	4813.4	6797.4	6962.7	6908.0	10807.7	27346.7	48156.4	69620.3	90563.8
IN 1000 TONNES HM CUMUL.	34.4	54.8	83.0	116.9	152.4	198.2	294.1	482.8	777.2	1177.8
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	26.3	96.0	249.0	452.6	572.8	566.2	557.2	515.7	386.8	188.7
IN 1000 TONNES HM CUMUL.	0.1	0.4	1.2	3.0	5.6	8.5	11.3	14.0	16.2	17.6

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	404.0	1361.9	4013.3	4040.9	4916.8	5477.1	3983.9	3403.2	2830.1	1760.6
IN 1000 TONNES HM CUMUL.	2.9	9.7	29.7	49.9	74.5	101.9	121.8	138.9	153.0	161.8
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	2379.3	3503.2	5001.8	6324.5	6534.4	8419.5	22265.0	42075.0	63272.8	84185.3
IN 1000 TONNES HM CUMUL.	21.2	35.9	57.3	88.6	120.6	156.4	234.1	397.8	664.8	1035.2
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1964.2	2105.0	854.0	1975.6	1108.2	2395.0	17739.8	38147.6	59988.1	82119.0
IN 1000 TONNES HM CUMUL.	18.2	26.0	26.9	36.9	42.3	48.1	103.1	247.1	497.5	857.1
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	11.1	36.2	134.4	308.0	509.4	547.4	541.3	524.2	454.7	305.6
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.6	1.7	3.7	6.4	9.1	11.8	14.3	16.3
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	56.5	116.0	216.5	376.6	564.7	788.1	1153.0	1748.2	2606.1	3719.9
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	1.2	4.4	11.8	22.0	28.9	28.6	28.1	25.8	19.2	9.2
IN TONNES CUMULATED	5.7	19.3	59.5	143.9	272.0	415.8	557.5	692.4	805.0	876.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	1.2	4.2	11.5	21.6	28.9	28.6	28.2	26.1	19.5	9.5
IN TONNES CUMULATED	5.4	18.2	56.9	139.5	267.1	411.0	552.9	688.4	802.4	875.1
PU USED IN REACTORS										
IN TONNES/YEAR	1.0	3.5	10.3	20.4	29.0	28.6	28.3	26.8	20.7	10.8
IN TONNES CUMULATED	4.5	15.0	48.8	125.4	250.4	394.4	536.9	674.6	793.2	871.9
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.3	1.1	2.6	4.4	4.9	4.8	4.7	4.0	2.7	0.9
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.0	17.4	31.9	50.8	68.3	81.0	119.9	169.4	218.1	263.1
IN TONNES CUMULATED	59.3	125.2	248.6	468.0	765.4	1130.2	1640.5	2378.3	3367.4	4580.6
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	41.9	79.7	127.8	187.6	233.5	290.6	465.0	854.6	1524.0	2495.8
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	7.3	7.3	6.9	4.7	2.7	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	4.8	7.3	7.3	7.3	7.3	4.8	2.5	0.0	0.0
FBR OX. FUELED (EARLY)	0.5	1.6	6.1	13.5	21.5	21.3	21.0	19.9	15.4	8.0
LWR-OT CURRENT (PWR/BWR=2/1)	36.8	81.0	136.7	68.4	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	125.2	285.5	384.5	379.2	334.9	279.2	222.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	19.0	152.0	325.7	508.4	681.0
TOTAL	47.1	94.8	157.1	219.0	317.0	432.0	557.0	683.0	803.0	911.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	2.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (EARLY)	0.2	1.2	4.5	7.4	8.0	0.0	0.0	0.0	0.0	0.0
LWR-OT CURRENT (PWR/BWR=2/1)	28.2	44.2	55.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	57.3	93.0	106.1	22.9	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	19.0	133.0	173.7	182.7	172.6

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	68.0	67.3	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.3	18.7	27.7	35.6	44.7	57.6	67.9	76.9	84.5	93.0
IN 1000 TONNES CUMULATED	78.2	153.5	270.5	429.3	629.4	885.3	1199.3	1561.6	1964.9	2409.1
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.3	18.7	27.7	33.1	40.5	50.3	63.4	73.5	81.6	91.2
IN 1000 TONNES CUMULATED	78.2	153.5	270.5	416.9	595.7	815.2	1106.6	1451.7	1840.8	2276.2
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	205.7	388.1	616.2	829.7	1176.6	1623.2	2064.8	2530.0	3019.3	3481.5
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	172.9	317.0	497.2	673.2	959.2	1336.3	1762.9	2228.1	2717.4	3179.6
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	2873.6	20259.3	27425.6	30106.9	29967.9	36784.8
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	3.5	39.4	150.8	292.9	445.0	604.9
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.1	11.4	18.5	26.0	35.2	44.4	47.1	47.3	46.4	45.4
IN 1000 TONNES CUMULATED	29.5	73.4	148.4	259.7	412.7	610.9	839.4	1075.1	1309.3	1538.7
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3397.6	4813.4	6797.4	6962.7	7037.3	10164.4	16140.8	22855.2	29360.3	36484.5
IN 1000 TONNES HM CUMUL.	34.4	54.8	83.0	116.9	152.3	194.6	260.1	357.4	488.1	652.2
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	26.3	96.0	249.0	452.6	572.8	566.2	557.2	515.7	386.8	188.7
IN 1000 TONNES HM CUMUL.	0.1	0.4	1.2	3.0	5.6	8.5	11.3	14.0	16.2	17.6

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	404.0	1361.9	4013.3	4040.9	4916.8	5477.1	3983.9	3403.2	2830.1	1760.6
IN 1000 TONNES HM CUMUL.	2.9	9.7	29.7	49.9	74.5	101.9	121.8	138.9	153.0	161.8
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	2379.3	3503.2	5001.8	6324.5	6534.4	7035.0	11038.3	17136.2	23643.3	30529.5
IN 1000 TONNES HM CUMUL.	21.2	35.9	57.3	88.6	120.6	152.9	199.1	272.4	378.0	515.1
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1964.2	2105.0	854.0	1975.6	1108.2	1010.5	6513.1	13208.8	20358.5	28463.3
IN 1000 TONNES HM CUMUL.	18.2	26.0	26.9	36.9	42.3	44.6	68.2	121.7	210.6	337.0
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	11.1	36.2	134.4	308.0	509.4	547.4	541.3	524.2	454.7	305.6
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.6	1.7	3.7	6.4	9.1	11.8	14.3	16.3

DETAILS ON FISSILE MATERIAL

1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	56.5	116.0	216.5	376.6	564.7	779.7	1068.9	1448.0	1922.4	2483.8
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	1.2	4.4	11.8	22.0	28.9	28.6	28.1	25.8	19.2	9.2
IN TONNES CUMULATED	5.7	19.3	59.5	143.9	272.0	415.8	557.5	692.4	805.0	876.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	1.2	4.2	11.5	21.6	28.9	28.6	28.2	26.1	19.5	9.5
IN TONNES CUMULATED	5.4	18.2	56.9	139.5	267.1	411.0	552.9	688.4	802.4	875.1
PU USED IN REACTORS										
IN TONNES/YEAR	1.0	3.5	10.3	20.4	29.0	28.6	28.3	26.8	20.7	10.8
IN TONNES CUMULATED	4.5	15.0	48.8	125.4	250.4	394.4	536.9	674.6	793.2	871.9
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.3	1.1	2.6	4.4	4.9	4.8	4.7	4.0	2.7	0.9
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.0	17.4	31.9	50.8	68.3	77.7	92.9	110.0	124.1	136.1
IN TONNES CUMULATED	59.3	125.2	248.6	468.0	765.4	1121.9	1556.3	2078.1	2683.7	3344.5
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	41.9	79.7	127.8	187.6	233.5	284.6	401.1	611.2	939.3	1401.0

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Heavy Water Reactor
Once-Through Strategies
(low projection)

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	7.3	7.3	6.9	4.7	2.7	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	4.8	7.3	7.3	7.3	7.3	4.8	2.5	0.0	0.0
FBR OX. FUELED (EARLY)	0.5	1.6	4.6	10.2	15.2	15.0	14.8	13.6	10.6	5.0
LWR-OT CURRENT (PWR/BWR=2/1)	36.8	79.8	123.2	61.6	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	87.3	197.8	244.7	228.4	185.5	142.1	116.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	10.0	81.0	176.4	268.3	336.0
HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	47.1	93.5	142.0	171.0	223.0	277.0	329.0	378.0	421.0	457.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	2.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (EARLY)	0.2	1.2	3.0	5.6	5.0	0.0	0.0	0.0	0.0	0.0
LWR-OT CURRENT (PWR/BWR=2/1)	28.2	42.9	43.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	26.1	50.0	54.1	11.9	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	10.0	71.0	95.4	91.9	67.7
HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	61.2	60.5	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.2	17.4	23.1	26.5	29.2	33.1	38.9	45.1	51.1	56.1
IN 1000 TONNES CUMULATED	77.8	149.2	250.9	375.2	513.2	668.5	848.4	1058.4	1298.8	1566.8
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.2	17.4	23.1	25.1	26.2	29.7	33.2	41.9	49.1	54.9
IN 1000 TONNES CUMULATED	77.8	149.2	250.9	368.6	491.9	629.9	781.3	975.1	1205.6	1467.8
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	205.7	383.1	563.1	660.5	847.0	1085.9	1393.7	1747.6	2088.6	2339.7
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	172.9	312.9	455.0	535.3	689.0	892.5	1192.5	1546.4	1887.4	2138.5
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	1512.4	10814.0	15043.9	15239.6	12278.0	16316.4
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	1.9	20.9	80.9	157.2	230.7	297.7
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.1	10.7	15.7	19.4	23.5	26.1	23.4	18.7	14.3	11.1
IN 1000 TONNES CUMULATED	29.4	71.4	137.6	225.4	332.7	456.7	580.6	685.8	768.4	832.0
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3375.4	4570.0	5915.4	5509.3	4679.2	6429.6	15053.2	26041.4	36296.9	44582.1
IN 1000 TONNES HM CUMUL.	34.4	54.2	79.9	108.2	134.5	163.0	217.0	319.7	475.4	677.7
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	26.3	78.7	188.8	331.2	406.1	399.5	390.4	353.6	265.5	117.9
IN 1000 TONNES HM CUMUL.	0.1	0.4	1.0	2.3	4.2	6.2	8.2	10.1	11.6	12.6

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	404.0	1197.3	3123.2	4088.7	3791.3	3820.1	3638.4	2580.1	1957.8	1176.7
IN 1000 TONNES HM CUMUL.	2.9	8.9	24.5	44.9	63.9	83.0	101.2	114.1	123.8	129.7
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	2379.3	3477.2	4692.8	5522.0	5157.4	5489.2	12475.3	23025.1	33548.0	41967.9
IN 1000 TONNES HM CUMUL.	21.2	35.8	56.4	84.6	111.2	136.5	182.4	273.9	418.1	607.7
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1964.2	2243.6	1465.9	1199.6	1001.3	1281.7	8455.7	20080.9	31277.7	40586.4
IN 1000 TONNES HM CUMUL.	18.2	26.8	31.4	38.4	44.5	48.8	74.6	151.3	284.0	466.3
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	11.1	36.2	103.7	233.7	364.8	387.4	381.3	364.2	312.5	204.8
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.5	1.4	2.9	4.7	6.7	8.6	10.3	11.6

DETAILS ON FISSILE MATERIAL

1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	56.5	115.6	210.9	351.4	500.0	653.6	877.7	1218.6	1685.6	2255.9
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	1.2	3.7	8.9	[illegible]	20.5	20.2	19.7	17.7	13.2	5.7
IN TONNES CUMULATED	5.7	17.7	48.9	[illegible]	204.0	305.7	405.3	498.8	576.1	623.3
PLUTONIUM RECYCLED										
IN TONNES/YEAR	1.2	3.5	[illegible]	16.0	20.5	20.2	19.7	17.9	13.4	6.0
IN TONNES CUMULATED	5.4	16.8	47.0	108.6	200.6	302.3	402.1	496.1	574.3	622.7
PU USED IN REACTORS										
IN TONNES/YEAR	1.0	3.0	7.8	15.2	20.6	20.2	19.9	18.3	14.3	6.7
IN TONNES CUMULATED	4.5	14.2	40.8	98.4	188.7	290.7	391.0	486.6	568.2	620.7
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.3	0.9	2.0	3.2	3.5	3.4	3.3	2.8	1.8	0.6
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.0	17.2	28.3	41.3	50.3	54.3	73.1	97.5	119.3	134.0
IN TONNES CUMULATED	59.3	124.8	238.9	424.5	653.2	907.5	1234.2	1674.9	2232.2	2870.4
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	41.9	81.0	134.6	200.9	250.4	291.2	389.3	598.9	950.2	1442.8

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	7.3	7.3	6.9	4.7	2.7	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	4.8	7.3	7.3	7.3	7.3	4.8	2.5	0.0	0.0
FBR OX. FUELED (EARLY)	0.5	1.6	4.6	10.3	15.3	15.0	14.8	13.6	10.6	5.0
LWR-OT CURRENT (PWR/BWR=2/1)	36.8	79.8	123.2	61.6	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	87.3	197.8	244.7	228.4	185.5	142.1	116.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	10.0	81.0	176.4	268.3	336.0
TOTAL	47.1	93.5	142.0	171.0	223.0	277.0	329.0	378.0	421.0	457.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	2.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (EARLY)	0.2	1.2	3.0	5.6	5.0	0.0	0.0	0.0	0.0	0.0
LWR-OT CURRENT (PWR/BWR=2/1)	28.2	42.9	43.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	26.1	50.0	54.1	11.9	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	10.0	71.0	95.4	91.9	67.7

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	61.2	60.5	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.2	17.4	23.1	26.5	29.5	35.2	38.9	41.2	42.5	45.6
IN 1000 TONNES CUMULATED	77.8	149.2	250.9	375.2	514.2	676.1	861.5	1061.7	1270.6	1491.3
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.2	17.4	23.1	25.1	26.6	31.8	33.2	37.9	40.5	44.5
IN 1000 TONNES CUMULATED	77.8	149.2	250.9	368.6	492.9	637.6	794.4	978.4	1177.4	1392.2
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	205.7	383.1	563.1	660.5	847.0	1075.6	1310.1	1565.6	1811.7	1993.0
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	172.9	312.9	455.0	535.3	689.0	882.2	1108.9	1364.4	1610.5	1791.8
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	1512.4	10814.0	15043.9	15239.6	12278.0	16316.4
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	1.9	20.9	80.9	157.2	230.7	297.7
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.1	10.7	15.7	19.4	23.6	27.8	27.7	25.7	23.6	22.8
IN 1000 TONNES CUMULATED	29.4	71.4	137.6	225.4	333.1	461.5	600.1	733.5	856.8	972.5
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3375.4	4570.0	5915.4	5509.3	4747.3	6097.9	9100.9	12290.2	14891.1	17817.4
IN 1000 TONNES HM CUMUL.	34.4	54.2	79.9	108.2	134.4	161.1	198.9	252.4	320.8	402.2
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	26.3	78.7	188.8	331.2	406.1	399.5	390.4	353.6	265.5	117.9
IN 1000 TONNES HM CUMUL.	0.1	0.4	1.0	2.3	4.2	6.2	8.2	10.1	11.6	12.6

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	404.0	1197.3	3123.2	4088.7	3791.3	3820.1	3638.4	2580.1	1957.8	1176.7
IN 1000 TONNES HM CUMUL.	2.9	8.9	24.5	44.9	63.9	83.0	101.2	114.1	123.8	129.7
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	2379.3	3477.2	4692.8	5522.0	5157.4	4760.5	6493.7	9528.7	12598.3	15356.1
IN 1000 TONNES HM CUMUL.	21.2	35.8	56.4	84.6	111.2	134.7	163.8	206.6	264.7	335.4
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1964.2	2243.6	1465.9	1199.6	1001.3	553.0	2474.0	6584.5	10328.0	13974.6
IN 1000 TONNES HM CUMUL.	18.2	26.8	31.4	38.4	44.5	46.9	56.0	84.0	130.6	194.0
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	11.1	36.2	103.7	233.7	364.8	387.4	381.3	364.2	312.5	204.8
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.5	1.4	2.9	4.7	6.7	8.6	10.3	11.6
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	56.5	115.6	210.9	351.4	500.0	649.2	833.0	1057.5	1319.9	1608.9
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	1.2	3.7	8.9	16.2	20.5	20.2	19.7	17.7	13.2	5.7
IN TONNES CUMULATED	5.7	17.7	48.9	111.8	204.0	305.7	405.3	498.8	576.1	623.3
PLUTONIUM RECYCLED										
IN TONNES/YEAR	1.2	3.5	8.7	16.0	20.5	20.2	19.7	17.9	13.4	6.0
IN TONNES CUMULATED	5.4	16.8	47.0	108.6	200.6	302.3	402.1	496.1	574.3	622.7
PU USED IN REACTORS										
IN TONNES/YEAR	1.0	3.0	7.8	15.2	20.6	20.2	19.9	18.3	14.3	6.7
IN TONNES CUMULATED	4.5	14.2	40.8	98.4	188.7	290.7	391.0	486.6	568.2	620.7
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.3	0.9	2.0	3.2	3.5	3.4	3.3	2.8	1.8	0.6
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.0	17.2	28.3	41.3	50.3	52.6	58.7	65.3	69.7	71.1
IN TONNES CUMULATED	59.3	124.8	238.9	424.5	653.2	903.1	1189.4	1513.8	1866.5	2223.4
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	41.9	81.0	134.6	200.9	250.4	288.0	355.3	468.4	637.4	867.5
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

E. Thorium Strategies
(high projection)

SCENARIO EUROPE HIGH 51 HTR-TH/U 020981 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	7.3	7.3	6.9	4.7	2.7	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	4.8	7.3	7.3	7.3	7.3	4.8	2.5	0.0	0.0
FBR OX. FUELED (EARLY)	0.5	1.6	6.1	13.5	21.5	21.3	21.0	19.9	15.4	8.0
LWR-OT CURRENT (PWR/BWR=2/1)	36.8	81.0	136.7	68.4	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	125.2	285.5	384.5	379.2	335.0	279.3	222.0
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	19.0	152.0	325.7	508.4	681.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	47.1	94.8	157.1	219.0	317.0	432.0	557.0	683.0	803.0	911.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	2.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (EARLY)	0.2	1.2	4.5	7.4	8.0	0.0	0.0	0.0	0.0	0.0
LWR-OT CURRENT (PWR/BWR=2/1)	28.2	44.2	55.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	57.3	93.0	106.1	22.9	0.0	0.0	0.0
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	19.0	133.0	173.7	182.7	172.6
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	68.0	67.3	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.3	18.7	27.7	35.6	45.6	62.4	68.0	68.9	67.2	68.9
IN 1000 TONNES CUMULATED	78.2	153.5	270.5	429.3	631.3	900.7	1226.6	1568.9	1909.2	2249.8
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.3	18.7	27.7	33.1	41.3	55.1	63.5	65.5	64.4	67.1
IN 1000 TONNES CUMULATED	78.2	153.5	270.5	416.9	597.7	830.6	1133.8	1459.1	1785.1	2116.9
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	205.7	388.1	616.2	829.7	1176.6	1601.3	1889.6	2154.5	2433.1	2696.3
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	172.9	317.0	497.2	673.2	959.2	1307.3	1530.7	1730.4	1940.5	2139.0
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.2	1.3	2.0	2.3	2.3	2.7
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.4	3.9	12.3	23.0	34.4	46.7
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.1	11.4	18.5	26.0	37.4	60.5	70.0	73.9	74.5	80.5
IN 1000 TONNES CUMULATED	29.5	73.4	148.4	259.7	416.6	650.5	972.8	1331.5	1703.4	2087.5
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3397.6	4813.4	6797.4	6962.7	6606.4	6351.8	5832.4	5064.6	4143.7	3210.4
IN 1000 TONNES HM CUMUL.	34.4	54.8	83.0	116.9	151.5	185.0	215.8	243.0	266.1	284.5
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	172.4	1350.2	2722.3	4113.7	5399.6	7031.3
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.3	3.1	12.9	29.9	53.8	84.5
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	26.3	96.0	249.0	452.6	572.8	566.2	557.2	515.7	386.8	188.7
IN 1000 TONNES HM CUMUL.	0.1	0.4	1.2	3.0	5.6	8.5	11.3	14.0	16.2	17.6

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	404.0	1361.9	4013.3	4040.9	4916.8	5477.1	3983.9	3403.2	2830.1	1760.6
IN 1000 TONNES HM CUMUL.	2.9	9.7	29.7	49.9	74.5	101.9	121.8	138.9	153.0	161.8
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	70.9	624.8	1678.3	2889.5	4090.6
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.2	1.9	7.7	19.1	36.5
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	2379.3	3503.2	5001.8	6324.5	6534.4	6554.5	7023.6	7533.0	7858.0	8736.7
IN 1000 TONNES HM CUMUL.	21.2	35.9	57.3	88.6	120.6	151.7	186.7	225.9	268.0	311.2
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1964.2	2105.0	854.0	1975.6	1108.2	427.0	1648.2	1632.8	1374.0	2287.3
IN 1000 TONNES HM CUMUL.	18.2	26.0	26.9	36.9	42.3	43.1	53.1	65.5	78.1	91.6
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	11.1	36.2	134.4	308.0	509.4	579.6	766.7	818.6	764.4	598.2
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.6	1.7	3.7	6.5	9.8	13.8	17.9	21.3

DETAILS ON FISSILE MATERIAL

1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	56.5	116.0	216.5	376.6	564.7	774.8	1017.4	1256.5	1470.3	1646.8
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	1.2	4.4	11.8	22.0	28.9	28.6	28.1	25.8	19.2	9.2
IN TONNES CUMULATED	5.7	19.3	59.5	143.9	272.0	415.8	557.5	692.4	805.0	876.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	1.2	4.2	11.5	21.6	28.9	28.6	28.2	26.1	19.5	9.5
IN TONNES CUMULATED	5.4	18.2	56.9	139.5	267.1	411.0	552.9	688.4	802.4	875.1
PU USED IN REACTORS										
IN TONNES/YEAR	1.0	3.5	10.3	20.4	29.0	28.6	28.3	26.8	20.7	10.8
IN TONNES CUMULATED	4.5	15.0	48.8	125.4	250.4	394.4	536.9	674.6	793.2	871.9
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.3	1.1	2.6	4.4	4.9	4.8	4.7	4.0	2.7	0.9
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.0	17.4	31.9	50.8	68.3	75.7	76.3	70.5	59.4	46.9
IN TONNES CUMULATED	59.3	125.2	248.6	468.0	765.4	1116.9	1504.9	1886.6	2231.6	2507.5
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	41.9	79.7	127.8	187.6	233.5	281.2	364.7	461.4	560.3	668.1

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	7.3	7.3	6.9	4.7	2.7	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	4.8	7.3	7.3	7.3	7.3	4.8	2.5	0.0	0.0
FBR OX. FUELED (EARLY)	0.5	1.6	6.1	13.5	21.5	21.3	21.0	19.9	15.4	8.0
LWR-OT CURRENT (PWR/BWR=2/1)	36.8	81.0	136.7	68.4	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	125.2	285.5	381.5	374.2	366.0	493.0	590.9
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	22.0	157.0	294.6	294.6	312.1
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	47.1	94.8	157.1	219.0	317.0	432.0	557.0	683.0	803.0	911.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	2.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (EARLY)	0.2	1.2	4.5	7.4	8.0	0.0	0.0	0.0	0.0	0.0
LWR-OT CURRENT (PWR/BWR=2/1)	28.2	44.2	55.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	57.3	93.0	103.1	20.9	36.1	182.7	155.1
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	22.0	135.0	137.6	0.0	17.5
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	68.0	67.3	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.3	18.7	27.7	35.6	43.2	46.3	45.7	55.9	68.3	79.0
IN 1000 TONNES CUMULATED	78.2	153.5	270.5	429.3	625.2	847.4	1077.7	1334.4	1644.5	2013.1
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.3	18.7	27.7	35.6	43.2	35.6	29.8	46.0	59.8	69.3
IN 1000 TONNES CUMULATED	78.2	153.5	270.5	429.3	625.2	793.8	944.5	1151.8	1419.0	1738.8
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	205.7	388.1	616.2	829.7	1176.6	1561.2	1639.1	1773.7	2455.2	3033.7
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	172.9	317.0	497.2	673.2	959.2	1276.2	1340.5	1451.5	2013.3	2490.2
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.4	2.7	4.2	1.9	0.6	1.3
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.8	7.4	24.5	41.0	47.2	51.7
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	3327.3	20584.6	22006.1	2239.1	4886.6	9261.7
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	4.1	42.1	148.1	235.2	249.6	279.6
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.1	11.4	18.5	26.0	34.7	40.8	40.1	44.9	56.8	66.7
IN 1000 TONNES CUMULATED	29.5	73.4	148.4	259.7	411.6	600.4	802.8	1015.2	1269.6	1578.4
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3397.6	4813.4	6797.4	6962.7	6563.0	6277.3	6278.3	8179.6	9636.4	11181.3
IN 1000 TONNES HM CUMUL.	34.4	54.8	83.0	116.9	151.5	184.7	215.9	250.1	295.0	346.9
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	437.5	3293.9	7085.4	8160.8	8508.9	9551.6
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.6	7.1	33.0	74.5	115.7	160.2
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	24.3	88.1	236.1	438.5	573.3	566.6	559.3	523.6	399.7	202.8
IN 1000 TONNES HM CUMUL.	0.1	0.4	1.1	2.8	5.4	8.3	11.1	13.8	16.1	17.6

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	140.1	530.3	1465.4	2295.5	3181.8	11240.3	12335.9	8501.5	6917.0	7870.7
IN 1000 TONNES HM CUMUL.	1.1	3.8	11.1	22.6	38.5	94.7	156.4	198.9	233.5	272.8
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	10.2	31.8	117.1	279.7	478.7	548.4	542.2	528.7	472.0	333.9
IN 1000 TONNES HM CUMUL.	0.0	0.2	0.5	1.5	3.4	6.0	8.7	11.4	14.0	16.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	332.7	2661.9	6509.8	8311.1	8575.8
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.8	8.3	31.2	68.3	110.5
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	2379.3	3503.2	5001.8	6324.5	6534.4	6843.1	9341.1	12991.5	15488.5	17804.5
IN 1000 TONNES HM CUMUL.	21.2	35.9	57.3	88.6	120.6	152.4	193.9	252.6	327.4	412.4
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	2228.1	2936.6	3402.0	3721.0	2843.2	-5370.4	-6769.2	-3126.3	-194.2	978.3
IN 1000 TONNES HM CUMUL.	20.0	31.9	45.6	64.3	78.4	50.3	18.2	5.9	5.1	6.3
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.9	4.5	17.3	28.2	30.7	92.1	570.4	577.8	-17.3	45.9
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.1	0.2	0.3	0.6	2.3	5.2	6.6	6.7
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	56.5	116.0	216.4	376.3	564.2	768.6	972.0	1103.5	1189.3	1300.7
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	1.0	3.8	10.8	20.9	41.2	108.3	139.5	92.2	95.6	105.1
IN TONNES CUMULATED	4.9	16.1	51.8	131.0	270.2	716.7	1341.0	1860.4	2315.6	2794.6
PLUTONIUM RECYCLED										
IN TONNES/YEAR	1.0	3.8	10.8	20.9	41.2	108.3	139.5	92.2	95.6	105.1
IN TONNES CUMULATED	4.9	16.1	51.8	131.0	270.2	552.5	1170.0	1860.4	2315.6	2794.6
PU USED IN REACTORS										
IN TONNES/YEAR	1.0	3.5	10.3	20.4	40.9	106.8	138.0	92.5	95.9	105.1
IN TONNES CUMULATED	4.5	14.7	48.4	125.0	262.1	538.2	1148.2	1838.0	2294.5	2773.8
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	-0.0	-0.0	-0.0	-0.0	-0.0	164.2	171.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.0	17.4	31.9	50.8	68.3	76.0	80.3	83.4	91.8	98.5
IN TONNES CUMULATED	59.3	125.2	248.6	468.0	765.4	1117.8	1516.7	1940.7	2399.1	2885.3
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	48.9	98.1	176.0	303.0	448.1	340.9	106.1	4.4	0.0	0.7
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	4.9	39.1	95.5	122.0	125.9
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	12.2	122.1	458.6	1002.3	1621.9
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	4.9	39.1	95.5	122.0	125.9
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	12.2	122.1	458.6	1002.3	1621.9
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	4.4	36.3	92.7	122.0	125.5
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	11.1	112.8	435.2	971.8	1590.5
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	6.3	47.7	104.6	122.6	127.6
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	15.7	150.6	531.2	1099.1	1724.4

Thorium Strategies
(low projection)

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	7.3	7.3	6.9	4.7	2.7	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	4.8	7.3	7.3	7.3	7.3	4.8	2.5	0.0	0.0
FBR OX. FUELED (EARLY)	0.5	1.6	4.6	10.3	15.3	15.0	14.8	13.6	10.6	5.0
LWR-OT CURRENT (PWR/BWR=2/1)	36.8	79.8	123.2	61.6	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	87.3	197.8	244.7	228.4	185.5	142.1	116.0
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	10.0	81.0	176.4	268.3	336.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	47.1	93.5	142.0	171.0	223.0	277.0	329.0	378.0	421.0	457.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	2.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (EARLY)	0.2	1.2	3.0	5.6	5.0	0.0	0.0	0.0	0.0	0.0
LWR-OT CURRENT (PWR/BWR=2/1)	28.2	42.9	43.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	26.1	50.0	54.1	11.9	0.0	0.0	0.0
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	10.0	71.0	95.4	91.9	67.7
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	61.2	60.5	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.2	17.4	23.1	26.5	29.9	37.8	39.1	36.5	32.4	33.2
IN 1000 TONNES CUMULATED	77.8	149.2	250.9	375.2	515.2	684.3	876.3	1065.3	1237.5	1401.8
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.2	17.4	23.1	25.1	27.0	34.3	33.4	33.3	30.4	32.0
IN 1000 TONNES CUMULATED	77.8	149.2	250.9	368.6	493.9	645.8	809.2	982.0	1144.3	1302.7
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	205.7	383.1	563.1	660.5	847.0	1064.0	1216.7	1362.2	1502.3	1605.6
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	172.9	312.9	455.0	535.3	689.0	866.9	985.1	1094.8	1200.5	1278.4
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.1	0.7	1.1	1.2	1.0	1.2
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.2	2.1	6.6	12.3	17.7	23.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.1	10.7	15.7	19.4	24.8	36.4	40.2	39.3	35.6	38.6
IN 1000 TONNES CUMULATED	29.4	71.4	137.6	225.4	335.2	482.5	671.8	870.8	1060.3	1243.7
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3375.4	4570.0	5915.4	5509.3	4520.5	4068.6	3543.3	2814.7	2113.9	1675.0
IN 1000 TONNES HM CUMUL.	34.4	54.2	79.9	108.2	134.0	156.0	175.2	191.1	203.4	212.9
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	90.7	719.7	1476.5	2164.0	2637.3	3359.2
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.1	1.6	6.9	16.0	28.3	43.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	26.3	78.7	188.8	331.2	406.1	399.5	390.4	353.6	265.5	117.9
IN 1000 TONNES HM CUMUL.	0.1	0.4	1.0	2.3	4.2	6.2	8.2	10.1	11.6	12.6

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	404.0	1197.3	3123.2	4088.7	3791.3	3820.1	3638.4	2580.1	1957.8	1176.7
IN 1000 TONNES HM CUMUL.	2.9	8.9	24.5	44.9	63.9	83.0	101.2	114.1	123.8	129.7
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	37.3	332.6	904.9	1538.7	2071.5
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.1	1.0	4.1	10.2	19.2
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	2379.3	3477.2	4692.8	5522.0	5157.4	4507.6	4355.4	4339.5	4227.2	4446.7
IN 1000 TONNES HM CUMUL.	21.2	35.8	56.4	84.6	111.2	134.0	157.2	181.7	205.9	228.3
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1964.2	2243.6	1465.9	1199.6	1001.3	245.9	-117.2	328.6	262.5	879.0
IN 1000 TONNES HM CUMUL.	18.2	26.8	31.4	38.4	44.5	46.2	48.0	53.9	59.7	65.2
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	11.1	36.2	103.7	233.7	364.8	404.4	501.6	525.9	468.3	319.6
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.5	1.4	2.9	4.8	7.1	9.6	12.2	14.2
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	56.5	115.6	210.9	351.4	500.0	646.6	805.6	954.8	1078.0	1169.6
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	1.2	3.7	8.9	16.2	20.5	20.2	19.7	17.7	13.2	5.7
IN TONNES CUMULATED	5.7	17.7	48.9	111.8	204.0	305.7	405.3	498.8	576.1	623.3
PLUTONIUM RECYCLED										
IN TONNES/YEAR	1.2	3.5	8.7	16.0	20.5	20.2	19.7	17.9	13.4	6.0
IN TONNES CUMULATED	5.4	16.8	47.0	108.6	200.6	302.3	402.1	496.1	574.3	622.7
PU USED IN REACTORS										
IN TONNES/YEAR	1.0	3.0	7.8	15.2	20.6	20.2	19.9	18.3	14.3	6.7
IN TONNES CUMULATED	4.5	14.2	40.8	98.4	188.7	290.7	391.0	486.6	568.2	620.7
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.3	0.9	2.0	3.2	3.5	3.4	3.3	2.8	1.8	0.6
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.0	17.2	28.3	41.3	50.3	51.5	49.9	44.0	35.3	26.4
IN TONNES CUMULATED	59.3	124.8	238.9	424.5	653.2	900.5	1162.1	1411.1	1624.6	1784.1
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	41.9	81.0	134.6	200.9	250.4	286.2	336.0	388.2	434.4	481.1
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	7.3	7.3	6.9	4.7	2.7	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	4.8	7.3	7.3	7.3	7.3	4.8	2.5	0.0	0.0
FBR OX. FUELED (EARLY)	0.5	1.6	4.6	10.3	15.3	15.0	14.8	13.6	10.6	5.0
LWR-OT CURRENT (PWR/BWR=2/1)	36.8	79.8	123.2	61.6	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	87.3	197.7	242.7	224.4	181.5	196.9	238.5
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	12.0	85.0	180.4	213.5	213.5
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	47.1	93.5	142.0	171.0	223.0	277.0	329.0	378.0	421.0	457.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
GAS-GRAPHITE REACTOR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADVANCED GAS-COOLED REACTOR	2.5	2.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (EARLY)	0.2	1.2	3.0	5.6	5.0	0.0	0.0	0.0	0.0	0.0
LWR-OT CURRENT (PWR/BWR=2/1)	28.2	42.9	43.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	26.1	50.0	52.1	9.9	0.0	58.8	67.7
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	12.0	73.0	95.4	33.1	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	61.2	60.5	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.2	17.4	23.1	26.5	28.7	29.1	25.1	24.5	27.6	33.4
IN 1000 TONNES CUMULATED	77.8	149.2	250.9	375.2	511.9	655.4	790.7	916.0	1046.6	1199.6
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.2	17.4	23.1	26.5	28.7	28.0	15.4	16.1	17.3	25.6
IN 1000 TONNES CUMULATED	77.8	149.2	250.9	375.2	511.9	649.9	736.6	819.5	898.3	1012.2
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	205.7	383.1	563.1	660.5	847.0	1041.3	1078.3	1078.3	1297.6	1550.1
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	172.9	312.9	455.0	535.3	689.0	849.2	879.7	879.7	1060.5	1268.7
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.2	1.4	2.6	1.9	0.6	0.2
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.4	4.0	14.0	25.9	32.4	34.5
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	1814.9	11131.7	15074.3	6375.9	1622.5	1622.5
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	2.2	22.8	84.0	149.7	176.0	184.2
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.1	10.7	15.7	19.4	23.4	25.8	23.0	20.7	22.9	27.7
IN 1000 TONNES CUMULATED	29.4	71.4	137.6	225.4	332.5	455.6	577.7	686.9	795.8	922.2
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3375.4	4570.0	5915.4	5509.3	4491.5	4009.2	3482.5	3604.4	3926.1	4853.3
IN 1000 TONNES HM CUMUL.	34.4	54.2	79.9	108.2	134.0	155.8	174.6	191.6	210.3	231.9
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	238.6	1784.0	4251.5	5655.1	5913.7	5913.7
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.3	3.9	18.4	44.7	74.4	104.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	24.3	73.4	178.9	322.4	406.5	399.9	392.5	358.8	275.3	126.7
IN 1000 TONNES HM CUMUL.	0.1	0.3	0.9	2.2	4.1	6.1	8.1	9.9	11.5	12.5

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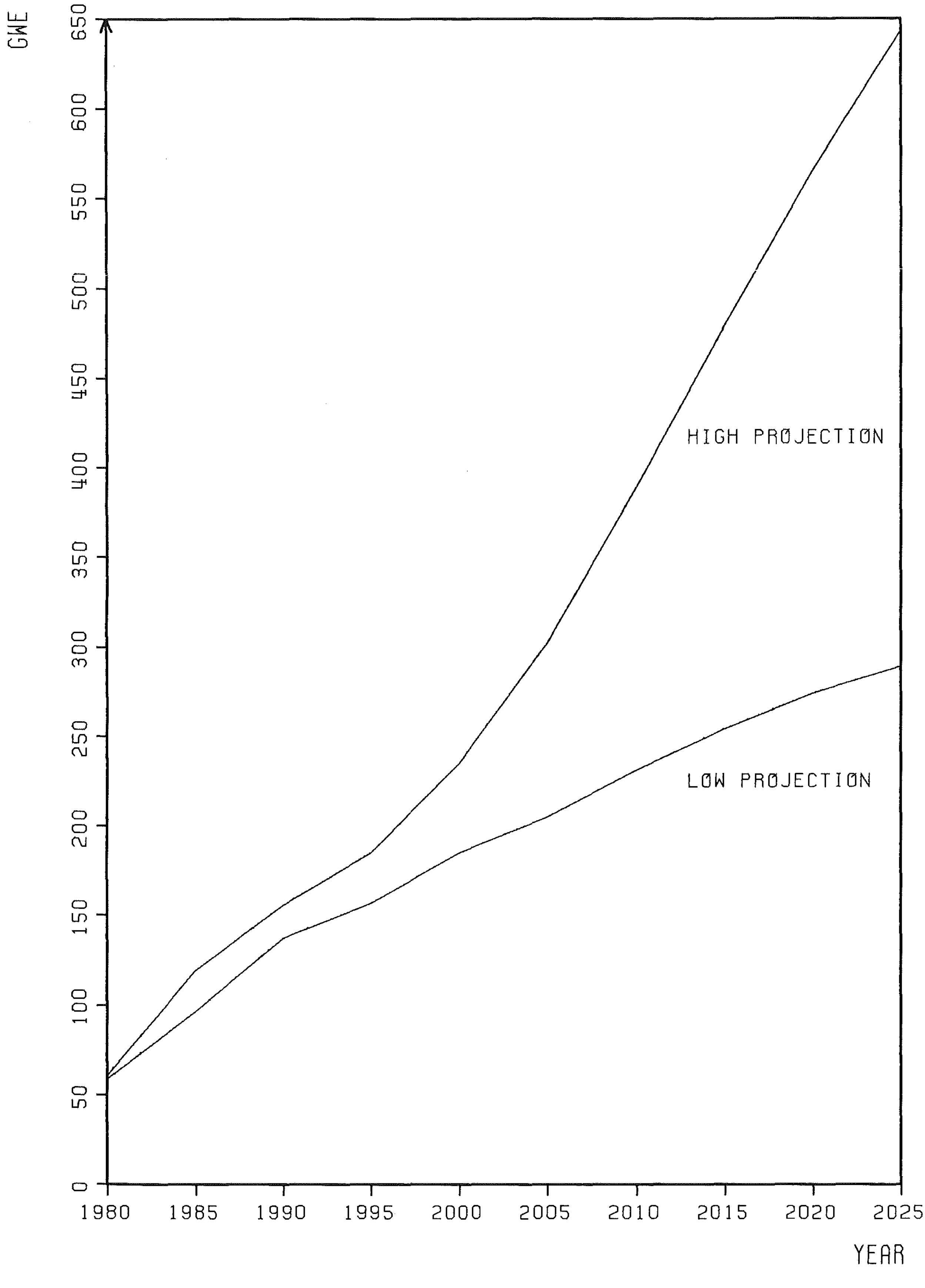
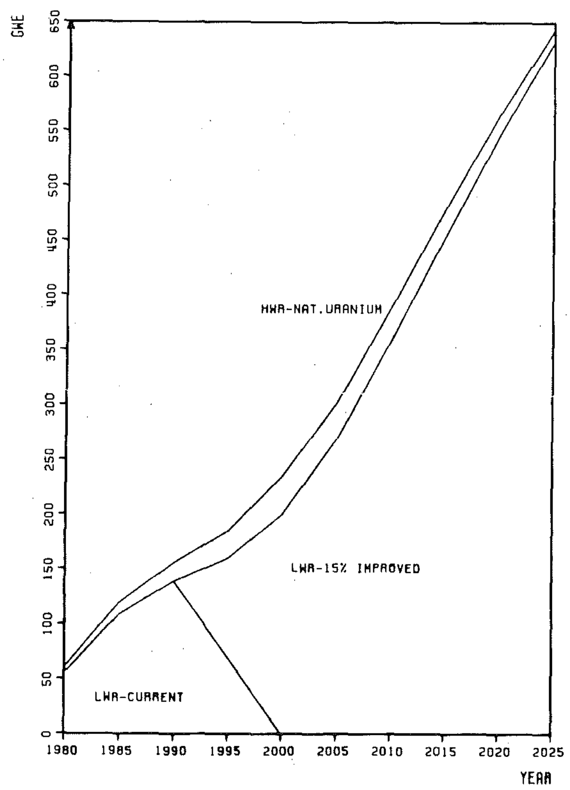
	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	140.1	436.8	1041.9	1628.1	1921.1	5713.9	8180.2	8522.9	6518.1	4949.5
IN 1000 TONNES HM CUMUL.	1.1	3.3	8.5	16.6	26.3	54.8	95.7	138.3	170.9	195.7
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	10.2	31.8	92.2	212.2	345.6	388.4	382.2	368.7	324.0	226.3
IN 1000 TONNES HM CUMUL.	0.0	0.2	0.5	1.2	2.6	4.5	6.4	8.3	10.0	11.4
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	181.4	1442.3	3840.4	5589.5	6022.6
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.5	4.5	17.7	41.3	70.3
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	2379.3	3477.2	4692.8	5522.0	5157.4	4662.9	5602.5	7460.1	8873.9	9831.5
IN 1000 TONNES HM CUMUL.	21.2	35.8	56.4	84.6	111.2	134.4	161.1	196.5	240.1	287.6
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	2228.1	3004.1	3547.2	3660.1	2871.6	-1670.7	-4710.2	-5671.1	-3686.1	-1345.4
IN 1000 TONNES HM CUMUL.	20.0	32.3	47.3	66.6	82.1	74.3	53.2	29.1	13.5	5.5
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.9	4.5	11.5	21.5	19.2	49.8	308.0	399.2	128.5	-21.5
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.1	0.1	0.2	0.4	1.3	3.1	4.4	4.7
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	56.5	115.6	210.9	351.1	499.7	643.6	781.1	862.3	878.7	867.4
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	1.0	3.2	8.2	15.5	27.2	63.3	91.6	76.7	61.5	54.0
IN TONNES CUMULATED	4.9	15.2	43.1	102.5	200.7	377.7	746.9	1218.1	1590.4	1879.3
PLUTONIUM RECYCLED										
IN TONNES/YEAR	1.0	3.2	8.2	15.5	27.2	63.3	91.6	76.7	61.5	54.0
IN TONNES CUMULATED	4.9	15.2	43.1	102.5	200.7	377.7	746.9	1218.1	1590.4	1879.3
PU USED IN REACTORS										
IN TONNES/YEAR	1.0	3.0	7.8	15.2	27.1	62.5	90.6	76.5	61.9	54.3
IN TONNES CUMULATED	4.5	14.1	40.5	98.1	195.1	368.8	733.2	1202.5	1575.9	1866.5
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.0	17.2	28.3	41.3	50.3	51.7	52.0	49.6	48.5	47.7
IN TONNES CUMULATED	59.3	124.8	238.9	424.5	653.2	900.9	1168.0	1436.2	1696.7	1942.5
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	48.9	98.7	176.8	293.9	417.1	482.0	375.7	170.4	57.8	15.2
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	2.7	21.2	56.4	82.0	88.4
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	6.7	66.2	260.0	606.0	1032.1
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	2.7	21.2	56.4	82.0	88.4
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	6.7	66.2	260.0	606.0	1032.1
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	2.4	19.7	54.4	81.3	88.4
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	6.0	61.2	246.3	585.6	1010.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	3.4	25.8	62.6	84.5	88.8
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	8.6	81.7	302.7	670.4	1103.7

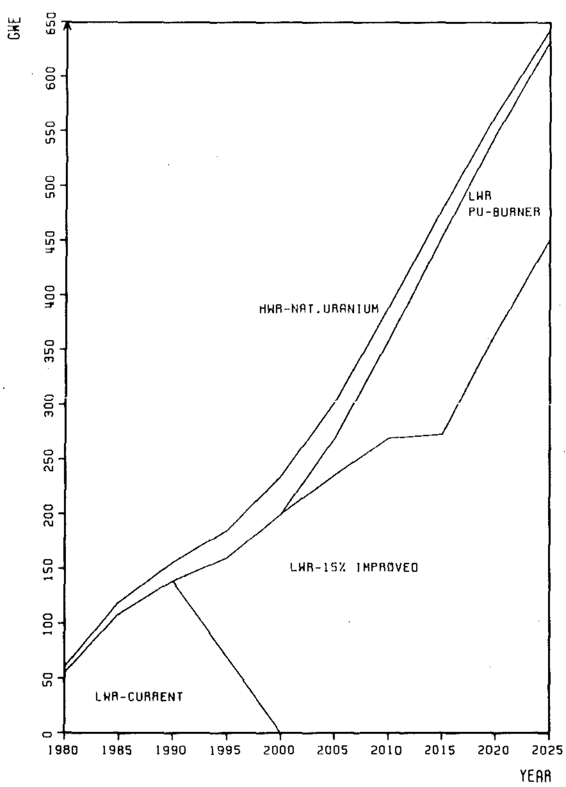
IV.3.2 OECD-North America



INSTALLED NUCLEAR CAPACITY FØR ØECD NØRTH-AMERICA



OECD-NORTH-AMERICA LWR-OT-REFERENCE STRATEGY
(HIGH CASE)



OECD-NORTH-AMERICA LWR-PU-REFERENCE STRATEGY
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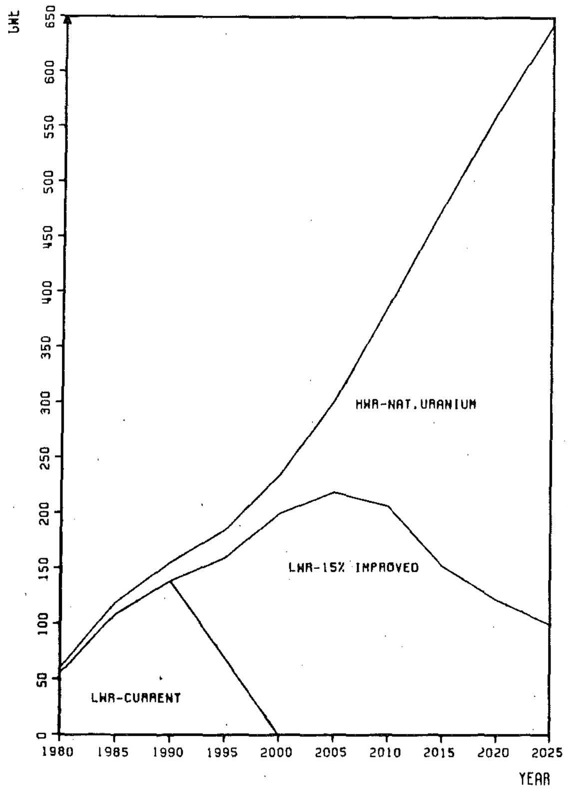

OECD-NORTH-AMERICA HWR-OT-REFERENCE STRATEGY
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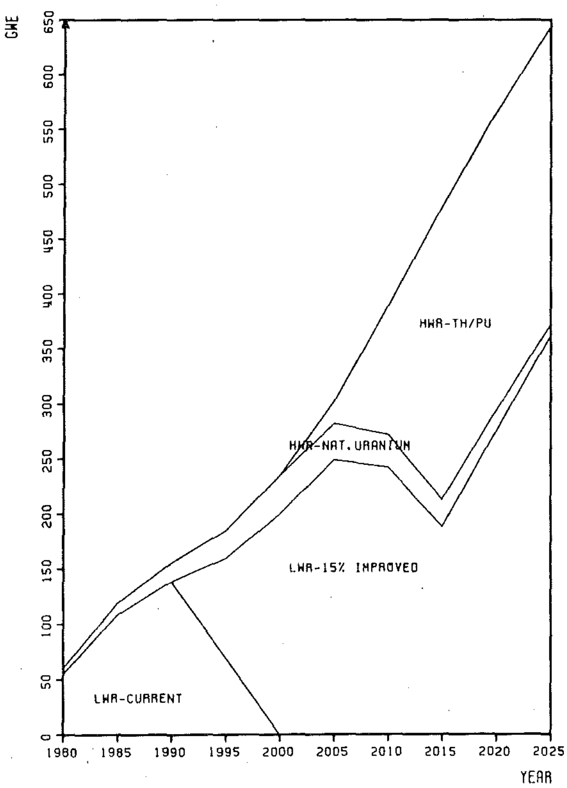
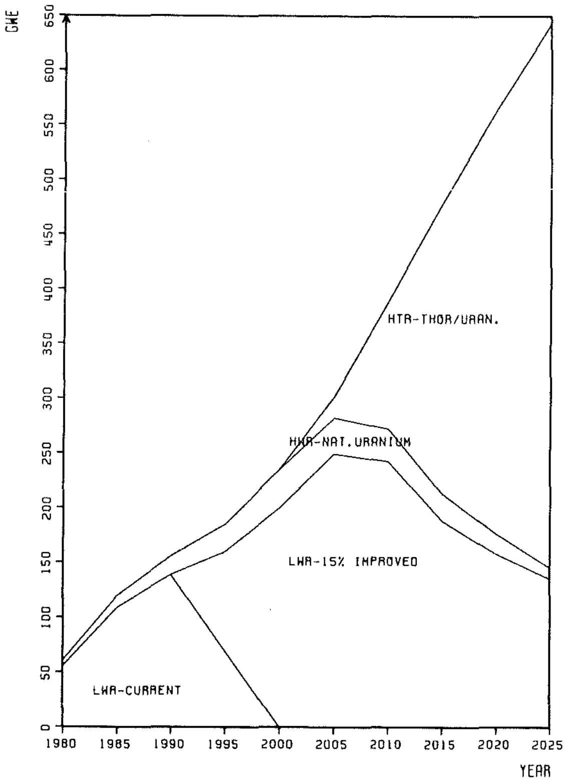
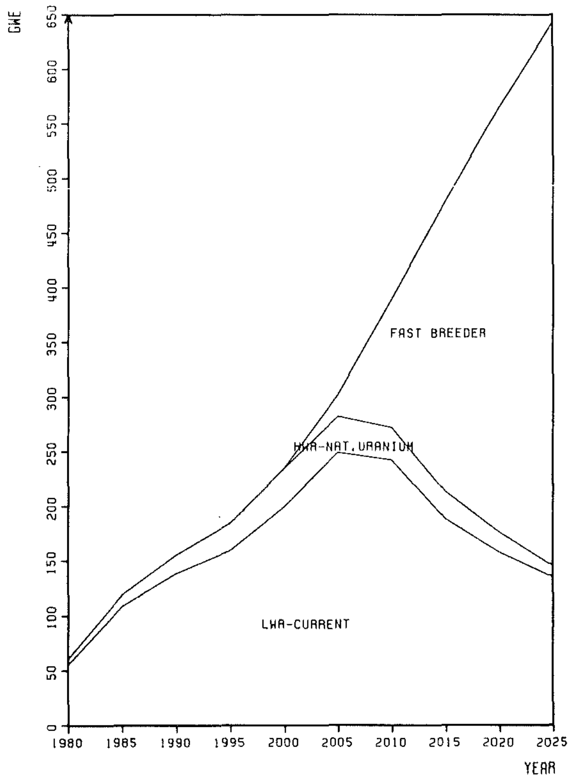


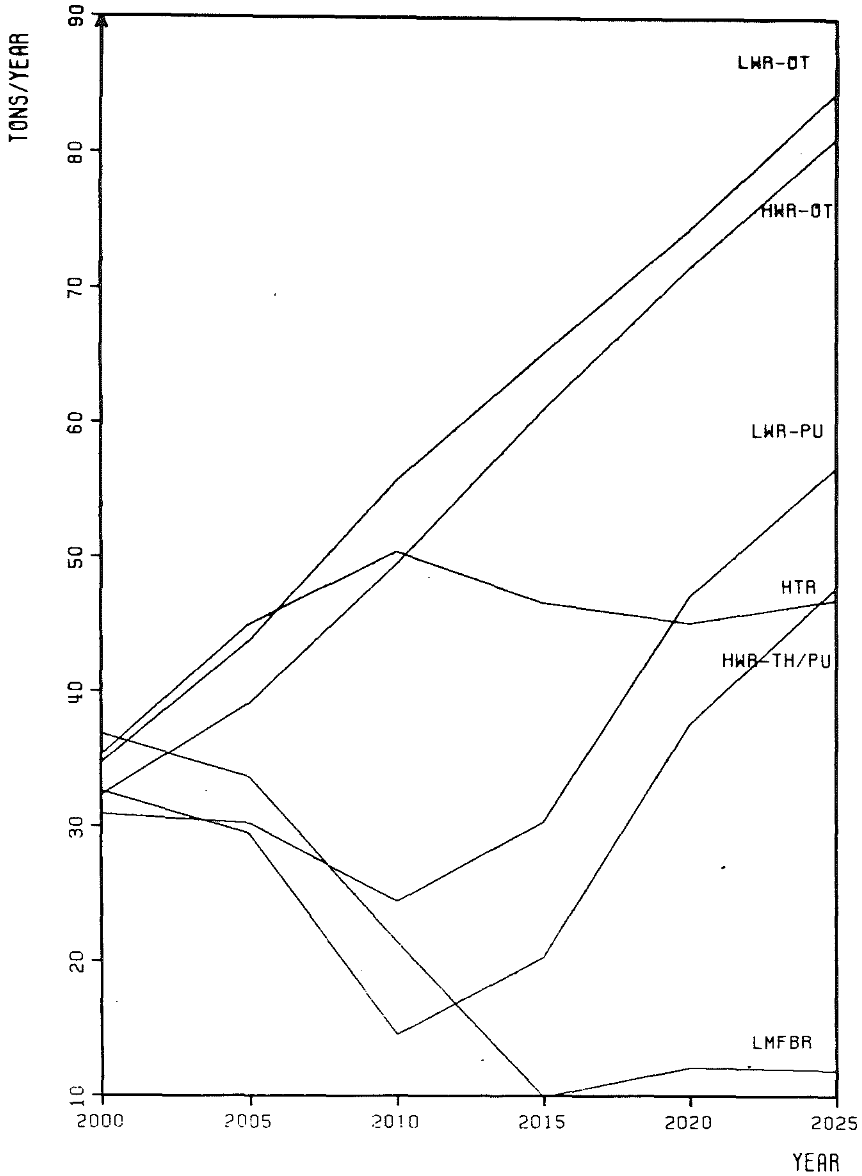
OECD-NORTH-AMERICA
HWR-TH/PU-REFERENCE STRATEGY (HIGH CASE)



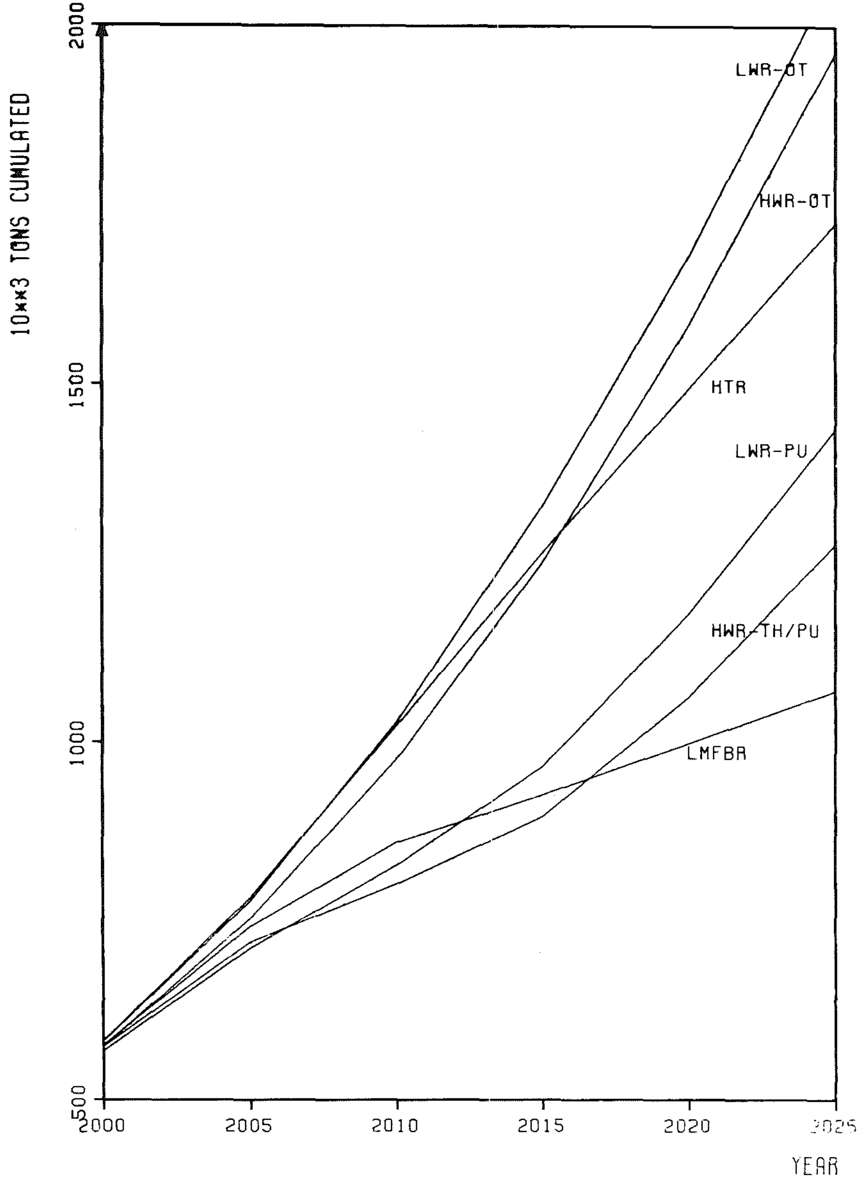
OECD-NORTH-AMERICA HTR-TH/U-REFERENCE STRATEGY
(HIGH CASE)



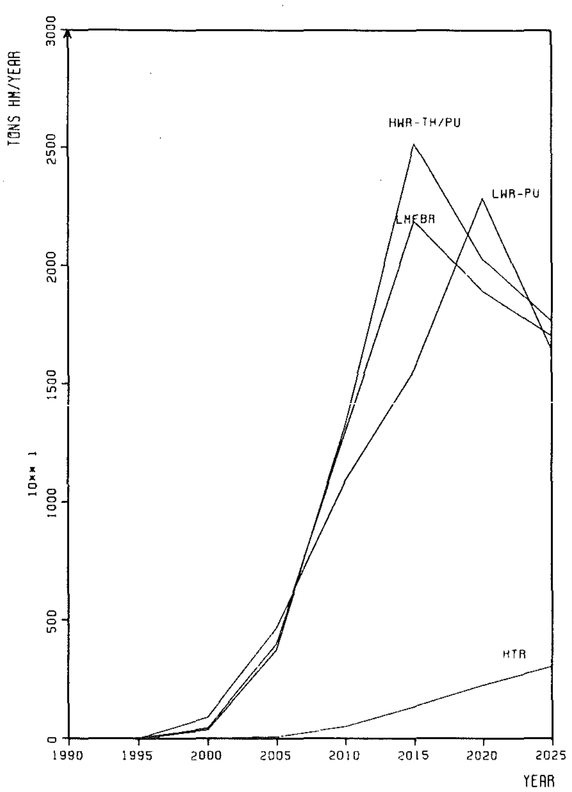
OECD-NORTH-AMERICA LMFBR-REFERENCE STRATEGY
(HIGH CASE)



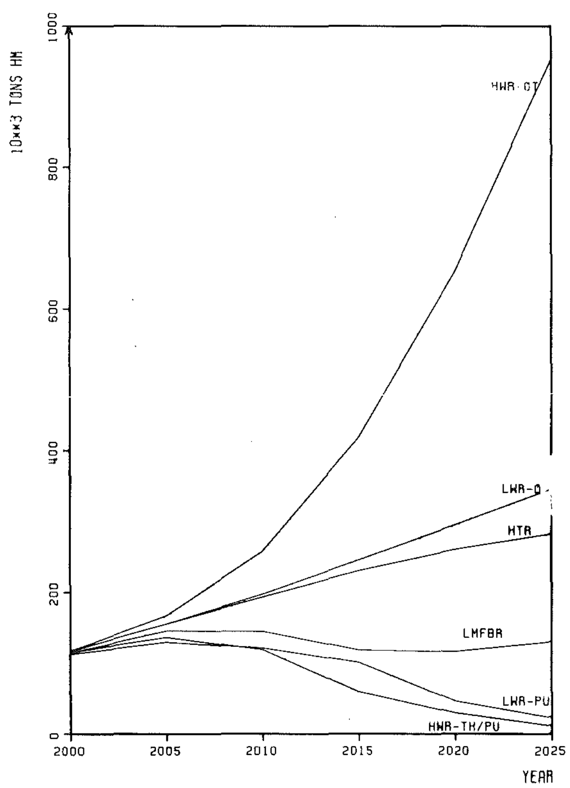
NATURAL URANIUM DEMAND FOR OECD-NORTH-AMERICA
REFERENCE STRATEGIES (HIGH CASE)
(100 % U235 CREDIT ASSUMED FROM REPROCESSED SPENT FUEL)



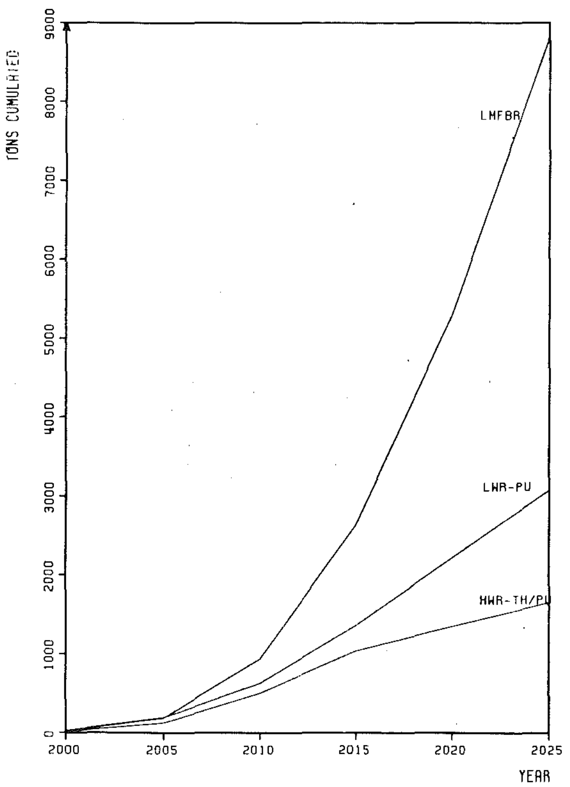
NATURAL URANIUM DEMAND FOR OECD-NORTH-AMERICA
REFERENCE STRATEGIES (HIGH CASE)
(100 % U235 CREDIT ASSUMED FROM REPROCESSED SPENT FUEL)



ANNUAL REPROCESSING REQUIREMENTS FOR
OECD-NORTH-AMERICA REFERENCE STRATEGIES (HIGH CASE)

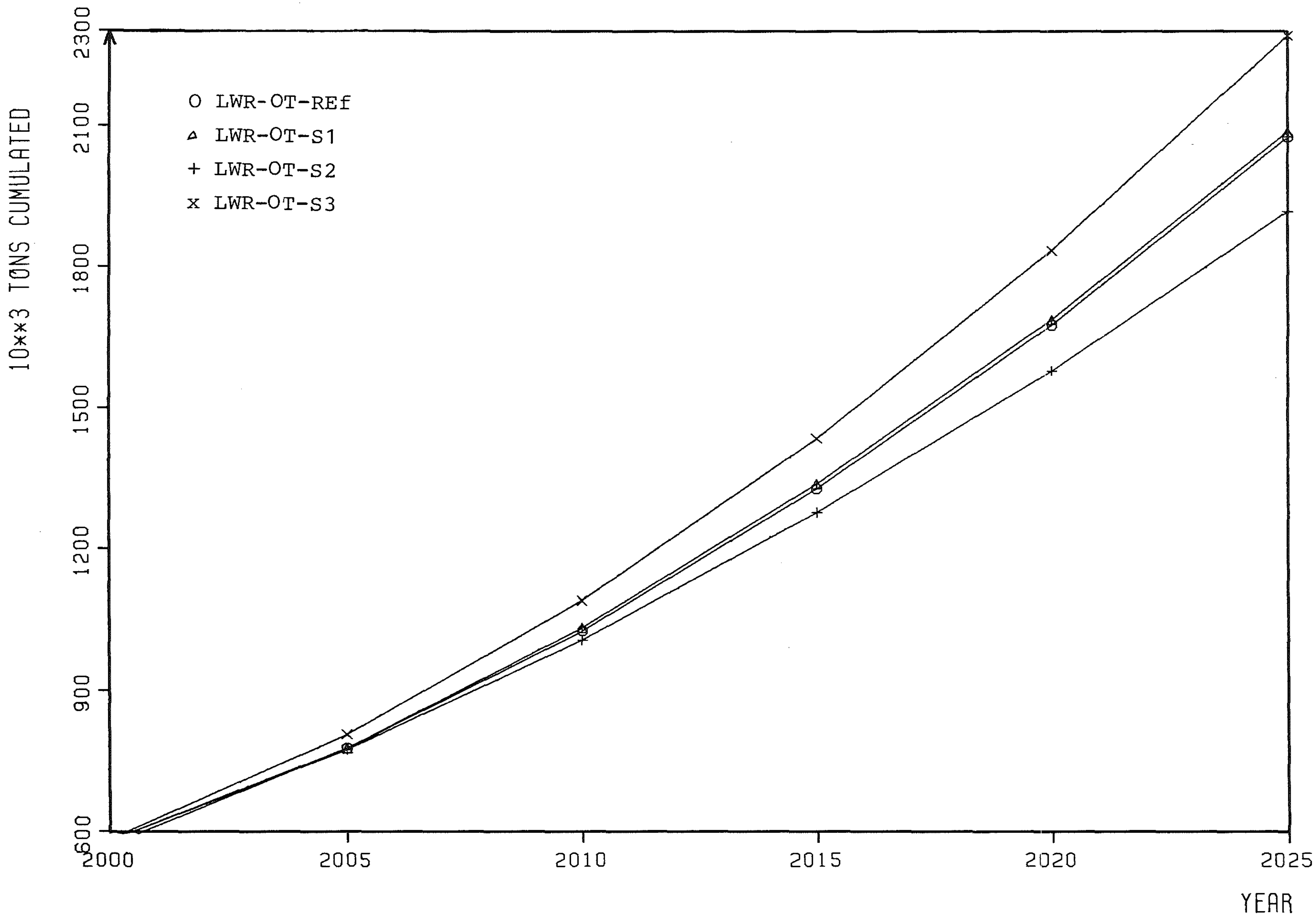


AMOUNT OF UNREPROCESSED SPENT FUEL
IN OECD-NORTH-AMERICA REFERENCE STRATEGIES (HIGH CASE)



FISSILE PLUTONIUM REPROCESSED IN OECD-
NORTH-AMERICA REFERENCE STRATEGIES (HIGH CASE)

A. Light Water Reactor
Once-Through Strategies
(high projection)



.NATURAL URANIUM DEMAND FØR ØECD-NØRTH-AMERICA
LWR STRATEGIES (HIGH CASE)

SCENARIO AMERICA HIGH 11 LWR-OT-REF 080981 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	55.0	109.0	139.0	69.5	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	90.5	200.0	269.3	359.3	454.1	546.7	632.8
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	5.5	10.3	16.9	25.0	35.0	32.7	29.7	24.9	18.3	10.2
TOTAL	60.5	119.3	155.9	185.0	235.0	302.0	389.0	479.0	565.0	643.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	18.0	54.0	30.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	22.6	44.1	100.4	108.0	148.8	122.8	108.7
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	3.0	4.8	6.6	8.1	10.2	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	67.9	65.4	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	13.4	19.1	25.2	29.0	34.7	43.7	55.7	65.1	74.4	84.5
IN 1000 TONNES CUMULATED	93.7	174.5	286.2	422.1	581.2	777.4	1026.8	1328.4	1676.9	2074.4
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	13.4	19.1	25.2	29.0	34.7	43.7	55.7	65.1	74.4	84.5
IN 1000 TONNES CUMULATED	93.7	174.5	286.2	422.1	581.2	777.4	1026.8	1328.4	1676.9	2074.4
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	234.9	463.3	605.6	719.9	922.2	1296.8	1699.6	2254.6	2712.7	3118.1
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	190.9	376.1	494.2	593.8	767.2	1076.0	1408.1	1865.6	2243.3	2577.5
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	767.8	1076.5	1356.5	1731.0	232.3	-103.3	-229.1	-545.1	-870.1	-1164.4
IN 1000 TONNES D2O CUMUL.	5.3	9.5	15.3	22.6	29.4	29.0	27.9	25.2	21.0	15.3
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	8.1	12.6	16.6	19.7	24.4	32.3	42.6	52.0	61.3	70.8
IN 1000 TONNES CUMULATED	55.5	107.4	180.5	271.3	381.8	523.6	710.9	947.5	1230.6	1560.8
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3104.8	4723.8	6927.4	7800.8	8723.5	9616.3	11117.8	11606.7	11987.3	12567.8
IN 1000 TONNES HM CUMUL.	19.7	39.6	68.0	104.5	145.9	191.7	243.0	300.1	359.3	420.4
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	1899.8	3620.5	5264.0	6961.4	7911.4	7660.1	8531.2	9315.9	9869.3	10440.1
IN 1000 TONNES HM CUMUL.	10.9	24.7	46.9	79.8	117.0	155.6	197.2	245.3	295.2	346.7
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1899.8	3620.5	5264.0	6961.4	7911.4	7660.1	8531.2	9315.9	9869.3	10440.1
IN 1000 TONNES HM CUMUL.	10.9	24.7	46.9	79.8	117.0	155.6	197.2	245.3	295.2	346.7
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	58.6	130.5	244.1	407.6	589.6	785.9	1017.2	1306.2	1633.0	1998.3
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.9	18.9	26.5	34.2	38.6	40.6	49.6	59.1	67.8	76.8
IN TONNES CUMULATED	58.6	130.5	244.1	407.6	589.6	785.9	1017.2	1306.2	1633.0	1998.3
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	47.8	110.9	213.7	368.0	545.6	736.1	957.7	1232.7	1549.7	1905.4
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	55.0	109.0	139.0	137.4	133.4	102.2	84.2	30.2	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	22.6	66.6	167.1	275.1	423.9	546.7	632.8
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	5.5	10.3	16.9	25.0	35.0	32.7	29.7	24.9	18.3	10.2
TOTAL	60.5	119.3	155.9	185.0	235.0	302.0	389.0	479.0	565.0	643.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	18.0	54.0	30.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	22.6	44.1	100.4	108.0	148.8	122.8	108.7
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	3.0	4.8	6.6	8.1	10.2	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	13.4	19.1	23.0	28.1	36.8	45.4	56.8	65.5	74.4	84.5
IN 1000 TONNES CUMULATED	93.7	174.5	279.5	407.6	571.0	776.8	1033.3	1338.6	1687.9	2085.4
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	13.4	19.1	23.0	28.1	36.8	45.4	56.8	65.5	74.4	84.5
IN 1000 TONNES CUMULATED	93.7	174.5	279.5	407.6	571.0	776.8	1033.3	1338.6	1687.9	2085.4
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	256.4	505.8	659.9	774.2	976.5	1351.0	1753.9	2308.9	2767.0	3172.4
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	176.2	346.9	456.9	556.5	729.9	1038.7	1370.8	1828.3	2206.0	2540.2
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	767.8	1076.5	1356.5	1731.0	232.3	-103.3	-229.1	-545.1	-870.1	-1164.4
IN 1000 TONNES D2O CUMUL.	5.3	9.5	15.3	22.6	29.4	29.0	27.9	25.2	21.0	15.3
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	8.1	12.6	15.2	18.3	24.2	32.1	42.5	51.9	61.3	70.8
IN 1000 TONNES CUMULATED	55.5	107.4	177.0	260.7	366.8	507.7	694.2	930.4	1213.5	1543.6
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3104.8	4723.8	6149.8	7785.6	10124.7	10697.9	11959.6	11895.1	11987.3	12567.8
IN 1000 TONNES HM CUMUL.	19.7	39.6	66.9	101.5	145.5	197.4	253.5	313.5	373.4	434.5
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	1899.8	3620.5	5264.0	6617.4	8311.7	9253.9	9723.6	10496.3	10347.6	10440.1
IN 1000 TONNES HM CUMUL.	10.9	24.7	46.9	76.7	114.1	158.9	205.9	257.7	309.0	360.7
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1899.8	3620.5	5264.0	6617.4	8311.7	9253.9	9723.6	10496.3	10347.6	10440.1
IN 1000 TONNES HM CUMUL.	10.9	24.7	46.9	76.7	114.1	158.9	205.9	257.7	309.0	360.7
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

DETAILS ON FISSILE MATERIAL

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	58.6	130.5	244.1	390.9	570.3	792.4	1045.5	1349.5	1682.1	2048.0
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.9	18.9	26.5	32.1	39.5	47.4	54.7	64.5	70.1	76.8
IN TONNES CUMULATED	58.6	130.5	244.1	390.9	570.3	792.4	1045.5	1349.5	1682.1	2048.0
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	47.8	110.9	213.7	352.9	524.2	736.2	980.9	1273.2	1598.0	1955.1
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	55.0	109.0	139.0	69.5	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	90.5	200.0	168.9	150.9	96.9	66.6	44.1
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	100.4	208.4	357.2	480.0	588.7
HWR-OT NAT. URANIUM	5.5	10.3	16.9	25.0	35.0	32.7	29.7	24.9	18.3	10.2
TOTAL	60.5	119.3	155.9	185.0	235.0	302.0	389.0	479.0	565.0	643.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	18.0	54.0	30.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	22.6	44.1	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	100.4	108.0	148.8	122.8	108.7
HWR-OT NAT. URANIUM	3.0	4.8	6.6	8.1	10.2	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	67.9	65.4	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	13.4	19.1	25.2	29.0	35.0	41.7	51.3	57.2	63.5	71.2
IN 1000 TONNES CUMULATED	93.7	174.5	286.2	422.1	581.6	773.5	1006.8	1277.7	1579.4	1916.6
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	13.4	19.1	25.2	29.0	35.0	41.7	51.3	57.2	63.5	71.2
IN 1000 TONNES CUMULATED	93.7	174.5	286.2	422.1	581.6	773.5	1006.8	1277.7	1579.4	1916.6
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	234.9	463.3	605.6	719.9	922.2	1232.6	1566.4	2026.4	2406.0	2741.9
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	190.9	376.1	494.2	593.8	767.2	1041.3	1336.2	1742.4	2077.7	2374.4
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	767.8	1076.5	1356.5	1731.0	232.3	-103.3	-229.1	-545.1	-870.1	-1164.4
IN 1000 TONNES D2O CUMUL.	5.3	9.5	15.3	22.6	29.4	29.0	27.9	25.2	21.0	15.3
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	8.1	12.6	16.6	19.7	25.2	30.8	39.0	44.8	51.3	58.5
IN 1000 TONNES CUMULATED	55.5	107.4	180.5	271.3	382.4	522.2	696.3	906.4	1146.8	1420.9
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3104.8	4723.8	6927.4	7800.8	8744.6	9387.9	10628.0	10739.5	10810.1	11123.8
IN 1000 TONNES HM CUMUL.	19.7	39.6	68.0	104.5	145.9	191.1	240.6	294.4	348.4	402.9
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	1899.8	3620.5	5264.0	6961.4	7911.4	7461.7	8069.8	8507.1	8744.3	9039.7
IN 1000 TONNES HM CUMUL.	10.9	24.7	46.9	79.8	117.0	155.1	195.1	239.9	285.0	330.2
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1899.8	3620.5	5264.0	6961.4	7911.4	7461.7	8069.8	8507.1	8744.3	9039.7
IN 1000 TONNES HM CUMUL.	10.9	24.7	46.9	79.8	117.0	155.1	195.1	239.9	285.0	330.2
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	58.6	130.5	244.1	407.6	589.6	781.0	995.9	1253.4	1532.3	1834.9
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.9	18.9	26.5	34.2	38.6	38.6	45.0	51.0	56.7	62.9
IN TONNES CUMULATED	58.6	130.5	244.1	407.6	589.6	781.0	995.9	1253.4	1532.3	1834.9
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	47.8	110.9	213.7	368.0	545.6	732.7	941.1	1188.6	1461.8	1758.4
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO AMERICA HIGH 14 LWR-OT-S3 080981 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	55.0	109.0	139.0	160.0	200.0	269.3	359.3	454.1	546.7	632.8
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	5.5	10.3	16.9	25.0	35.0	32.7	29.7	24.9	18.3	10.2
TOTAL	60.5	119.3	155.9	185.0	235.0	302.0	389.0	479.0	565.0	643.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	18.0	54.0	30.2	22.6	44.1	100.4	108.0	148.8	122.8	108.7
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	3.0	4.8	6.6	8.1	10.2	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	13.4	19.1	23.3	29.1	39.3	49.7	63.6	74.5	85.2	97.0
IN 1000 TONNES CUMULATED	93.7	174.5	280.3	411.6	583.7	806.4	1090.7	1435.3	1834.4	2290.4
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	13.4	19.1	23.3	29.1	39.3	49.7	63.6	74.5	85.2	97.0
IN 1000 TONNES CUMULATED	93.7	174.5	280.3	411.6	583.7	806.4	1090.7	1435.3	1834.4	2290.4
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	256.4	505.8	659.9	786.9	1013.8	1444.6	1907.9	2546.3	3073.1	3539.4
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	176.2	346.9	456.9	551.0	713.7	998.1	1303.9	1725.3	2073.1	2380.9
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	767.8	1076.5	1356.5	1731.0	232.3	-103.3	-229.1	-545.1	-870.1	-1164.4
IN 1000 TONNES D2O CUMUL.	5.3	9.5	15.3	22.6	29.4	29.0	27.9	25.2	21.0	15.3
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	8.1	12.6	15.3	18.4	24.5	32.2	42.6	51.7	60.8	70.2
IN 1000 TONNES CUMULATED	55.5	107.4	177.1	261.3	368.2	510.0	697.0	932.9	1214.1	1541.4
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3104.8	4723.8	6207.8	8142.7	11102.8	12780.0	15313.1	16788.8	18142.7	19687.1
IN 1000 TONNES HM CUMUL.	19.7	39.6	67.1	102.7	150.0	209.6	279.3	359.9	447.4	541.7
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	1899.8	3620.5	5264.0	6811.8	8934.6	10836.8	12453.4	14740.7	15970.7	17090.5
IN 1000 TONNES HM CUMUL.	10.9	24.7	46.9	77.1	116.6	167.0	224.7	294.0	369.9	452.3
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1899.8	3620.5	5264.0	6811.8	8934.6	10836.8	12453.4	14740.7	15970.7	17090.5
IN 1000 TONNES HM CUMUL.	10.9	24.7	46.9	77.1	116.6	167.0	224.7	294.0	369.9	452.3
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	58.6	130.5	244.1	392.9	580.7	825.2	1122.4	1497.7	1931.0	2422.4
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.9	18.9	26.5	32.9	42.1	53.9	65.8	81.8	93.1	104.0
IN TONNES CUMULATED	58.6	130.5	244.1	392.9	580.7	825.2	1122.4	1497.7	1931.0	2422.4
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	47.8	110.9	213.7	354.3	532.1	762.7	1045.7	1402.1	1820.2	2297.2
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Light Water Reactor
Once-Through Strategies
(low projection)

SCENARIO AMERICA LOW 11 LWR-OT-REF 080981 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	53.0	86.0	123.0	61.5	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	75.5	160.0	182.3	211.3	239.1	263.3	283.6
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	5.5	10.3	14.5	19.8	25.0	22.7	19.7	14.9	10.7	5.4
TOTAL	58.5	96.3	137.5	156.8	185.0	205.0	231.0	254.0	274.0	289.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	16.0	33.0	37.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	15.6	27.1	53.4	45.0	60.8	61.4	35.9
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	3.0	4.8	4.2	5.3	5.4	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	59.9	57.4	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.1	16.6	21.8	23.7	24.9	27.2	30.7	33.3	34.5	36.6
IN 1000 TONNES CUMULATED	86.7	156.1	252.6	366.4	487.4	617.4	762.5	922.7	1091.6	1269.6
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.1	16.6	21.8	23.7	24.9	27.2	30.7	33.3	34.5	36.6
IN 1000 TONNES CUMULATED	86.7	156.1	252.6	366.4	487.4	617.4	762.5	922.7	1091.6	1269.6
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	227.1	373.6	534.3	612.1	733.2	932.4	1100.3	1327.1	1556.1	1690.0
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	184.7	304.8	435.7	503.4	606.7	770.9	909.3	1096.3	1285.1	1395.5
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	767.8	713.5	914.8	965.5	156.3	-179.3	-305.1	-619.3	-560.9	-771.6
IN 1000 TONNES D2O CUMUL.	5.3	9.1	12.9	17.6	21.4	20.5	19.1	16.1	13.3	9.6
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.9	10.5	14.5	16.5	18.3	20.6	23.9	26.8	28.7	31.1
IN 1000 TONNES CUMULATED	52.3	96.0	158.7	236.2	323.2	420.5	531.9	658.7	797.5	947.1
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	2695.1	4207.0	5978.0	6309.5	6201.7	6152.2	6398.5	6238.7	5741.3	5539.8
IN 1000 TONNES HM CUMUL.	18.8	36.0	61.0	91.6	123.2	154.2	185.4	217.0	247.3	275.3
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	1859.8	3150.8	4580.8	5859.1	6133.8	5338.8	5382.9	5232.5	5063.0	4935.3
IN 1000 TONNES HM CUMUL.	10.8	23.3	42.6	70.8	100.8	129.4	157.2	185.9	214.0	239.5
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1859.8	3150.8	4580.8	5859.1	6133.8	5338.8	5382.9	5232.5	5063.0	4935.3
IN 1000 TONNES HM CUMUL.	10.8	23.3	42.6	70.8	100.8	129.4	157.2	185.9	214.0	239.5
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	58.0	121.7	219.2	360.0	509.7	656.8	809.1	977.0	1154.3	1330.5
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.6	15.9	23.1	29.2	30.7	28.3	30.6	32.4	33.8	35.6
IN TONNES CUMULATED	58.0	121.7	219.2	360.0	509.7	656.8	809.1	977.0	1154.3	1330.5
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	47.3	104.6	193.1	325.9	474.0	620.3	770.8	935.2	1110.4	1286.4
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	53.0	86.0	123.0	121.4	117.3	86.2	70.2	37.2	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	15.6	42.7	96.1	141.1	201.9	263.3	283.6
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	5.5	10.3	14.5	19.8	25.0	22.7	19.7	14.9	10.7	5.4
TOTAL	58.5	96.3	137.5	156.8	185.0	205.0	231.0	254.0	274.0	289.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	16.0	33.0	37.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	15.6	27.1	53.4	45.0	60.8	61.4	35.9
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	3.0	4.8	4.2	5.3	5.4	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.1	16.6	19.8	22.9	26.8	28.6	31.8	33.7	34.5	36.6
IN 1000 TONNES CUMULATED	86.7	156.1	246.6	353.7	478.4	616.7	767.9	931.6	1101.6	1279.5
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.1	16.6	19.8	22.9	26.8	28.6	31.8	33.7	34.5	36.6
IN 1000 TONNES CUMULATED	86.7	156.1	246.6	353.7	478.4	616.7	767.9	931.6	1101.6	1279.5
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	247.8	407.2	582.4	660.2	781.3	980.5	1148.3	1375.1	1604.2	1738.0
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	170.5	281.8	402.7	470.3	573.7	737.9	876.3	1063.3	1252.1	1362.5
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	767.8	713.5	914.8	965.5	156.3	-179.3	-305.1	-619.3	-560.9	-771.6
IN 1000 TONNES D2O CUMUL.	5.3	9.1	12.9	17.6	21.4	20.5	19.1	16.1	13.3	9.6
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.9	10.5	13.3	15.2	18.1	20.5	23.8	26.7	28.7	31.1
IN 1000 TONNES CUMULATED	52.3	96.0	155.7	226.8	310.0	406.5	517.3	643.7	782.4	931.9
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	2695.1	4207.0	5291.9	6299.4	7430.1	7063.5	7115.4	6593.9	5741.3	5539.8
IN 1000 TONNES HM CUMUL.	18.8	36.0	60.0	88.9	122.8	159.2	194.4	228.7	259.9	287.9
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	1859.8	3150.8	4580.8	5555.6	6488.5	6760.2	6392.9	6155.8	5652.1	4935.3
IN 1000 TONNES HM CUMUL.	10.8	23.3	42.6	68.0	98.2	132.3	164.7	196.6	226.3	252.0
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1859.8	3150.8	4580.8	5555.6	6488.5	6760.2	6392.9	6155.8	5652.1	4935.3
IN 1000 TONNES HM CUMUL.	10.8	23.3	42.6	68.0	98.2	132.3	164.7	196.6	226.3	252.0
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

DETAILS ON FISSILE MATERIAL

1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	58.0	121.7	219.2	345.4	492.8	662.2	833.0	1014.4	1197.9	1374.9
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.6	15.9	23.1	27.3	31.5	34.4	34.9	36.5	36.6	35.6
IN TONNES CUMULATED	58.0	121.7	219.2	345.4	492.8	662.2	833.0	1014.4	1197.9	1374.9
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	47.3	104.6	193.1	312.6	455.2	620.3	790.5	969.8	1153.1	1330.8

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	53.0	86.0	123.0	61.5	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	75.5	160.0	128.9	112.9	79.9	42.7	27.1
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	53.4	98.4	159.2	220.6	256.5
HWR-OT NAT. URANIUM	5.5	10.3	14.5	19.8	25.0	22.7	19.7	14.9	10.7	5.4
TOTAL	58.5	96.3	137.5	156.8	185.0	205.0	231.0	254.0	274.0	289.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	16.0	33.0	37.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	15.6	27.1	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	53.4	45.0	60.8	61.4	35.9
HWR-OT NAT. URANIUM	3.0	4.8	4.2	5.3	5.4	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	59.9	57.4	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.1	16.6	21.8	23.7	25.1	26.1	28.6	29.8	29.4	30.8
IN 1000 TONNES CUMULATED	86.7	156.1	252.6	366.4	487.6	615.3	752.4	898.4	1046.1	1197.0
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.1	16.6	21.8	23.7	25.1	26.1	28.6	29.8	29.4	30.8
IN 1000 TONNES CUMULATED	86.7	156.1	252.6	366.4	487.6	615.3	752.4	898.4	1046.1	1197.0
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	227.1	373.6	534.3	612.1	733.2	898.3	1037.4	1225.3	1415.1	1526.1
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	184.7	304.8	435.7	503.4	606.7	752.5	875.4	1041.3	1209.0	1307.0
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	767.8	713.5	914.8	965.5	156.3	-179.3	-305.1	-619.3	-560.9	-771.6
IN 1000 TONNES D2O CUMUL.	5.3	9.1	12.9	17.6	21.4	20.5	19.1	16.1	13.3	9.6
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.9	10.5	14.5	16.5	18.7	19.7	22.2	23.7	24.0	25.7
IN 1000 TONNES CUMULATED	52.3	96.0	158.7	236.2	323.5	419.7	524.3	638.8	758.4	882.4
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	2695.1	4207.0	5978.0	6309.5	6212.9	6028.1	6165.2	5853.6	5197.3	4908.5
IN 1000 TONNES HM CUMUL.	18.8	36.0	61.0	91.6	123.2	153.9	184.2	214.2	242.2	267.3
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	1859.8	3150.8	4580.8	5859.1	6133.8	5233.3	5162.0	4869.3	4548.4	4319.4
IN 1000 TONNES HM CUMUL.	10.8	23.3	42.6	70.8	100.8	129.1	156.1	183.3	209.3	231.9
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1859.8	3150.8	4580.8	5859.1	6133.8	5233.3	5162.0	4869.3	4548.4	4319.4
IN 1000 TONNES HM CUMUL.	10.8	23.3	42.6	70.8	100.8	129.1	156.1	183.3	209.3	231.9
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

DETAILS ON FISSILE MATERIAL

1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	58.0	121.7	219.2	360.0	509.7	654.2	798.4	951.8	1107.4	1255.5
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.6	15.9	23.1	29.2	30.7	27.2	28.4	28.8	28.7	29.5
IN TONNES CUMULATED	58.0	121.7	219.2	360.0	509.7	654.2	798.4	951.8	1107.4	1255.5
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	47.3	104.6	193.1	325.9	474.0	618.5	762.4	914.0	1069.2	1218.7

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO AMERICA LOW 14 LWR-OT-S3 080981 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	53.0	86.0	123.0	137.0	160.0	182.3	211.3	239.1	263.3	283.6
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	5.5	10.3	14.5	19.8	25.0	22.7	19.7	14.9	10.7	5.4
TOTAL	58.5	96.3	137.5	156.8	185.0	205.0	231.0	254.0	274.0	289.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	16.0	33.0	37.2	15.6	27.1	53.4	45.0	60.8	61.4	35.9
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	3.0	4.8	4.2	5.3	5.4	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.1	16.6	20.0	23.5	28.2	30.9	35.0	38.1	39.4	42.1
IN 1000 TONNES CUMULATED	86.7	156.1	247.1	356.3	486.2	633.7	798.8	981.5	1174.7	1378.7
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.1	16.6	20.0	23.5	28.2	30.9	35.0	38.1	39.4	42.1
IN 1000 TONNES CUMULATED	86.7	156.1	247.1	356.3	486.2	633.7	798.8	981.5	1174.7	1378.7
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	247.8	407.2	582.4	668.9	805.1	1034.3	1227.3	1488.2	1751.6	1905.6
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	170.5	281.8	402.7	466.6	563.3	714.6	842.0	1014.2	1188.1	1289.8
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	767.8	713.5	914.8	965.5	156.3	-179.3	-305.1	-619.3	-560.9	-771.6
IN 1000 TONNES D2O CUMUL.	5.3	9.1	12.9	17.6	21.4	20.5	19.1	16.1	13.3	9.6
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.9	10.5	13.3	15.3	18.3	20.5	23.8	26.6	28.4	30.8
IN 1000 TONNES CUMULATED	52.3	96.0	155.8	227.2	310.8	407.7	518.4	644.5	782.3	930.3
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	2695.1	4207.0	5332.0	6537.2	8028.2	8216.7	8795.3	8932.0	8657.4	8690.9
IN 1000 TONNES HM CUMUL.	18.8	36.0	60.1	89.7	125.7	166.4	208.8	253.1	297.4	340.6
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	1859.8	3150.8	4580.8	5689.8	6889.5	7679.8	7815.1	8198.9	8355.3	7960.1
IN 1000 TONNES HM CUMUL.	10.8	23.3	42.6	68.4	99.9	137.3	175.5	216.1	257.6	297.7
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1859.8	3150.8	4580.8	5689.8	6889.5	7679.8	7815.1	8198.9	8355.3	7960.1
IN 1000 TONNES HM CUMUL.	10.8	23.3	42.6	68.4	99.9	137.3	175.5	216.1	257.6	297.7
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

DETAILS ON FISSILE MATERIAL

1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	58.0	121.7	219.2	346.7	499.6	682.6	877.3	1094.0	1326.0	1561.6
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.6	15.9	23.1	27.8	33.1	38.2	40.7	44.8	47.7	47.9
IN TONNES CUMULATED	58.0	121.7	219.2	346.7	499.6	682.6	877.3	1094.0	1326.0	1561.6
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	47.3	104.6	193.1	313.6	460.5	636.8	828.2	1040.0	1268.5	1502.6

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

B. Light Water Reactor With
Plutonium/Uranium Recycle Strategy
(low and high projection)

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	55.0	109.0	139.0	69.5	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	90.5	200.0	235.6	269.5	272.9	365.5	451.6
LWR-PU-BURNER	0.0	0.0	0.0	0.0	0.0	33.7	89.8	181.2	181.2	181.2
HWR-OT NAT. URANIUM	5.5	10.3	16.9	25.0	35.0	32.7	29.7	24.9	18.3	10.2
TOTAL	60.5	119.3	155.9	185.0	235.0	302.0	389.0	479.0	565.0	643.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	18.0	54.0	30.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	22.6	44.1	66.7	51.8	57.4	122.8	108.7
HWR-OT NAT. URANIUM	3.0	4.8	6.6	8.1	10.2	0.0	0.0	0.0	0.0	0.0
LWR-PU-BURNER	0.0	0.0	0.0	0.0	0.0	33.7	56.2	91.4	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	67.9	65.4	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	13.4	19.1	25.2	29.0	31.9	35.2	37.6	43.8	53.0	63.1
IN 1000 TONNES CUMULATED	93.7	174.5	286.2	422.1	573.6	741.2	923.4	1128.1	1369.8	1660.4
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	13.4	19.1	25.2	29.0	30.9	30.2	24.5	30.4	47.1	56.7
IN 1000 TONNES CUMULATED	93.7	174.5	286.2	422.1	568.5	711.3	827.6	965.4	1177.7	1436.6
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	234.9	463.3	605.6	719.9	922.2	1171.2	1364.6	1578.7	2036.8	2442.2
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	190.9	376.1	494.2	593.8	767.2	972.5	1131.9	1308.4	1686.0	2020.2
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	767.8	1076.5	1356.5	1731.0	232.3	-103.3	-229.1	-545.1	-870.1	-1164.4
IN 1000 TONNES D2O CUMUL.	5.3	9.5	15.3	22.6	29.4	29.0	27.9	25.2	21.0	15.3
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	8.1	12.6	16.6	19.7	23.1	26.4	29.5	33.0	42.3	51.8
IN 1000 TONNES CUMULATED	55.5	107.4	180.5	271.3	378.3	502.1	641.8	797.9	986.2	1221.5
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3104.8	4723.8	6927.4	7800.8	8236.6	8292.4	8430.7	8852.2	9232.8	9813.3
IN 1000 TONNES HM CUMUL.	19.7	39.6	68.0	104.5	145.2	186.7	228.4	270.8	316.2	363.5
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	475.0	1590.1	3418.2	4294.8	4294.8	4294.8
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.8	5.8	17.9	38.2	59.6	81.1

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	894.2	4263.4	9425.3	12428.9	18751.0	12332.9
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	4.5	25.8	72.9	135.1	228.8	290.5
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	420.3	1465.2	3180.0	4113.6	4113.6
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	1.1	5.8	17.4	35.6	56.2
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	1899.8	3620.5	5264.0	6961.4	7911.4	7888.8	9198.4	10699.2	11407.8	11978.6
IN 1000 TONNES HM CUMUL.	10.9	24.7	46.9	79.8	117.0	156.1	200.0	253.2	310.4	369.6
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1899.8	3620.5	5264.0	6961.4	7017.3	3014.1	-2010.8	-5428.3	-11456.7	-4467.8
IN 1000 TONNES HM CUMUL.	10.9	24.7	46.9	79.8	112.6	128.8	119.6	96.9	40.8	17.8
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	191.0	318.7	518.7	-0.0	-0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.5	1.8	3.8	5.1	5.1
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	58.6	130.5	244.1	407.6	589.4	761.3	888.9	929.1	877.2	823.2
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	13.0	53.5	120.2	171.2	171.2	171.2
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	28.5	192.1	622.2	1361.8	2218.1	3074.3
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	11.9	51.7	117.3	171.2	171.2	171.2
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	24.4	179.9	596.6	1332.7	2188.9	3045.2
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	8.2	45.6	107.3	171.2	171.2	171.2
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	14.0	144.1	519.2	1233.4	2089.6	2945.9
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	4.1	12.3	25.6	29.1	29.1	29.1
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.9	18.9	26.5	34.2	38.6	53.7	87.9	138.4	156.1	165.1
IN TONNES CUMULATED	58.6	130.5	244.1	407.6	589.6	818.7	1178.5	1761.5	2507.4	3313.9
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	47.8	110.9	213.7	368.0	517.0	565.6	456.0	236.9	84.5	20.9
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	53.0	86.0	123.0	61.5	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	75.5	160.0	159.5	158.5	125.5	146.5	166.8
LWR-PU-BURNER	0.0	0.0	0.0	0.0	0.0	22.8	52.8	113.6	116.8	116.8
HWR-OT NAT. URANIUM	5.5	10.3	14.5	19.8	25.0	22.7	19.7	14.9	10.7	5.4
TOTAL	58.5	96.3	137.5	156.8	185.0	205.0	231.0	254.0	274.0	289.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	16.0	33.0	37.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	15.6	27.1	30.6	15.0	0.0	58.2	35.9
HWR-OT NAT. URANIUM	3.0	4.8	4.2	5.3	5.4	0.0	0.0	0.0	0.0	0.0
LWR-PU-BURNER	0.0	0.0	0.0	0.0	0.0	22.8	30.0	60.8	3.2	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	59.9	57.4	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.1	16.6	21.8	23.7	23.0	22.0	19.5	19.7	20.7	22.9
IN 1000 TONNES CUMULATED	86.7	156.1	252.6	366.4	482.3	594.7	698.4	797.4	897.9	1007.0
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.1	16.6	21.8	23.7	22.3	18.9	12.1	10.4	11.5	19.8
IN 1000 TONNES CUMULATED	86.7	156.1	252.6	366.4	478.8	575.7	642.1	694.7	749.2	843.1
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	227.1	373.6	534.3	612.1	733.2	847.4	903.3	903.3	1120.5	1254.4
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	184.7	304.8	435.7	503.4	606.7	700.9	746.9	746.9	926.0	1036.3
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	767.8	713.5	914.8	965.5	156.3	-179.3	-305.1	-619.3	-560.9	-771.6
IN 1000 TONNES D2O CUMUL.	5.3	9.1	12.9	17.6	21.4	20.5	19.1	16.1	13.3	9.6
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.9	10.5	14.5	16.5	17.4	17.0	15.9	14.8	16.5	18.9
IN 1000 TONNES CUMULATED	52.3	96.0	158.7	236.2	320.8	406.7	489.0	565.6	643.7	732.1
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	2695.1	4207.0	5978.0	6309.5	5872.1	5371.5	4716.3	4465.8	3966.1	3764.6
IN 1000 TONNES HM CUMUL.	18.8	36.0	61.0	91.6	122.7	151.0	176.4	198.6	220.0	239.2
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	321.5	963.8	2109.6	2737.5	2767.9	2767.9
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.6	3.7	11.1	23.8	37.6	51.4

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	605.3	2674.0	5910.2	7336.2	8566.2	10605.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	3.0	16.4	45.9	82.6	125.5	178.5
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	284.5	892.2	1958.0	2618.7	2651.1
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.7	3.7	10.8	22.2	35.4
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	1859.8	3150.8	4580.8	5859.1	6133.8	5493.6	5780.3	6093.9	6049.1	5926.8
IN 1000 TONNES HM CUMUL.	10.8	23.3	42.6	70.8	100.8	129.8	159.0	190.8	223.5	254.0
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1859.8	3150.8	4580.8	5859.1	5528.5	2405.8	-1192.5	-3545.4	-5153.8	-7329.3
IN 1000 TONNES HM CUMUL.	10.8	23.3	42.6	70.8	97.8	112.4	108.3	95.0	72.6	36.8
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	129.3	170.4	345.0	18.0	-0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.3	1.1	2.4	3.3	3.3

DETAILS ON FISSILE MATERIAL

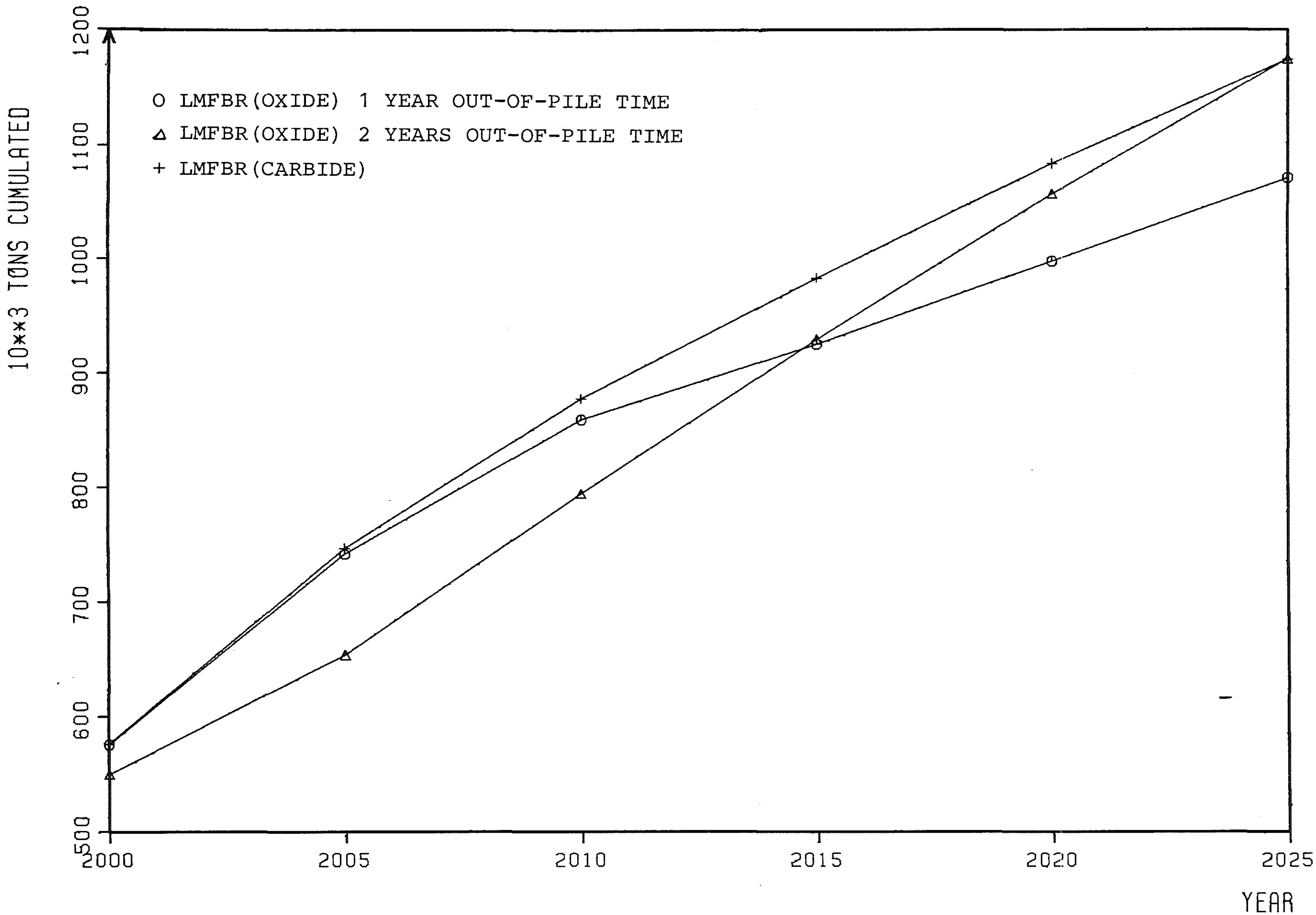
1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	58.0	121.7	219.2	360.0	509.6	640.2	728.0	743.3	682.3	589.6
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	8.8	33.1	73.4	108.6	110.4	110.4
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	19.3	123.3	386.0	847.9	1395.7	1947.5
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	8.1	32.2	71.5	108.5	110.4	110.4
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	16.5	116.0	370.1	829.3	1377.0	1928.8
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	5.6	28.9	64.8	108.1	110.4	110.4
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	9.5	94.2	322.4	766.0	1312.9	1864.8
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	2.8	7.3	15.9	18.6	18.8	18.8
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.6	15.9	23.1	29.2	30.7	37.2	53.4	81.8	90.4	92.5
IN TONNES CUMULATED	58.0	121.7	219.2	360.0	509.7	679.0	910.5	1258.9	1701.2	2160.9
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	47.3	104.6	193.1	325.9	454.7	511.7	461.2	314.3	184.4	88.5

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

C. Uranium/Plutonium Fuelled
LMFBR Strategies
(high projection)



NATURAL URANIUM DEMAND FØR ØECD-NØRTH-AMERICA
LMFBR STRATEGIES (HIGH CASE)
(100 % U235 CREDIT ASSUMED FRØM REPRØCESSED SPENT FUEL)

Note related to the previous figure (comparison of uranium requirements in different LMFBR strategy variants):

The priority shown in this figure is a logical and consistent result under the assumptions of the second "Yellow Book", especially to allow reprocessing of thermal spent fuel only as required to support advanced reactors. Thus, compared to an oxide-fuelled LMFBR the smaller amount of the fissile system inventory required for a carbide-fuelled LMFBR together with its higher breeding ratio leads to a smaller amount of fissile plutonium to be recovered from thermal spent fuel and to less possibilities for getting U-235 credit out of the reprocessing procedure. More U-235 is kept in the unreprocessed spent fuel if a more efficient LMFBR is used.

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	55.0	109.0	139.0	160.0	200.0	249.3	242.3	188.3	158.1	135.5
HWR-OT NAT. URANIUM	5.5	10.3	16.9	25.0	35.0	32.7	29.7	24.9	18.3	10.2
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	20.0	117.0	265.8	388.6	497.3
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	60.5	119.3	155.9	185.0	235.0	302.0	389.0	479.0	565.0	643.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	18.0	54.0	30.2	22.6	44.1	80.4	11.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	3.0	4.8	6.6	8.1	10.2	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	20.0	97.0	148.8	122.8	108.7
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	13.4	19.1	23.3	29.1	37.4	37.9	33.7	26.9	22.3	17.1
IN 1000 TONNES CUMULATED	93.7	174.5	280.3	411.6	578.5	765.2	943.8	1095.1	1218.0	1316.5
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	13.4	19.1	23.3	29.1	36.9	33.7	21.5	9.9	12.1	11.9
IN 1000 TONNES CUMULATED	93.7	174.5	280.3	411.6	575.9	741.6	859.2	925.7	997.8	1070.3
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	256.4	505.8	659.9	786.9	1013.8	1358.8	1406.0	1406.0	1406.0	1406.0
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	176.2	346.9	456.9	551.0	713.7	941.4	972.6	972.6	972.6	972.6
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	767.8	1076.5	1356.5	1731.0	232.3	-103.3	-229.1	-545.1	-870.1	-1164.4
IN 1000 TONNES D2O CUMUL.	5.3	9.5	15.3	22.6	29.4	29.0	27.9	25.2	21.0	15.3
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	8.1	12.6	15.3	18.4	23.6	25.8	23.8	18.8	15.8	13.0
IN 1000 TONNES CUMULATED	55.5	107.4	177.1	261.3	366.0	489.8	614.0	720.5	807.0	879.2
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3104.8	4723.8	6207.8	8142.7	10762.1	10607.5	9736.1	7785.8	6187.2	4503.6
IN 1000 TONNES HM CUMUL.	19.7	39.6	67.1	102.7	149.4	203.7	254.7	298.6	333.5	360.2
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	277.1	1949.9	5606.7	9755.3	13280.8	16901.1
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.4	4.8	23.0	61.8	119.6	194.7

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	454.0	3625.8	10512.6	15604.8	8770.8	3544.1
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	2.3	20.4	73.0	151.0	194.8	212.6
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	382.2	2441.7	6283.4	10161.4	13502.2
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	1.0	8.0	29.8	70.9	130.1
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	1899.8	3620.5	5264.0	6811.8	8934.6	10907.5	12884.8	15784.0	17579.8	19192.4
IN 1000 TONNES HM CUMUL.	10.9	24.7	46.9	77.1	116.6	167.1	226.2	299.1	381.7	473.4
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1899.8	3620.5	5264.0	6811.8	8480.6	6811.3	-497.2	-6760.3	-1893.9	1666.8
IN 1000 TONNES HM CUMUL.	10.9	24.7	46.9	77.1	114.3	145.6	143.7	114.0	108.7	120.9
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	88.2	427.8	656.2	541.6	479.3
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.2	1.5	4.2	7.2	9.8
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	58.6	130.5	244.1	392.9	580.6	825.5	1129.8	1536.8	2044.3	2633.7
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	8.3	69.6	234.7	444.3	620.4	791.1
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	14.5	185.5	930.3	2635.8	5301.8	8823.2
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	8.3	69.6	234.7	444.3	620.4	791.1
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	14.5	185.5	930.3	2635.8	5301.8	8823.2
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	6.8	62.5	223.6	435.2	612.3	781.3
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	10.2	157.2	854.9	2510.9	5133.6	8608.3
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.9	18.9	26.5	32.9	42.1	78.9	218.4	450.7	662.0	837.4
IN TONNES CUMULATED	58.6	130.5	244.1	392.9	580.7	887.7	1628.8	3307.7	6085.7	9833.2
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	52.1	118.7	225.9	369.8	537.0	652.2	565.7	369.9	289.2	342.4
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	55.0	109.0	139.0	160.0	200.0	249.3	242.3	188.3	239.3	217.2
HWR-OT NAT. URANIUM	5.5	10.3	16.9	25.0	35.0	32.7	29.7	24.9	18.3	10.2
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	20.0	117.0	265.8	307.3	415.6
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	60.5	119.3	155.9	185.0	235.0	302.0	389.0	479.0	565.0	643.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	18.0	54.0	30.2	22.6	44.1	80.4	11.0	0.0	81.3	0.4
HWR-OT NAT. URANIUM	3.0	4.8	6.6	8.1	10.2	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	20.0	97.0	148.8	41.5	108.3
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	13.4	19.1	23.3	29.1	37.4	37.9	33.7	34.6	33.3	28.2
IN 1000 TONNES CUMULATED	93.7	174.5	280.3	411.6	578.5	765.2	943.8	1116.1	1284.1	1437.9
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	13.4	19.1	23.3	29.1	31.7	21.3	26.1	27.1	25.1	20.9
IN 1000 TONNES CUMULATED	93.7	174.5	280.3	411.6	550.0	654.1	794.8	929.7	1056.8	1174.2
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	256.4	505.8	659.9	786.9	1013.8	1358.8	1406.0	1406.0	1754.6	1756.3
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	176.2	346.9	456.9	551.0	713.7	941.4	972.6	972.6	1202.7	1203.8
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	767.8	1076.5	1356.5	1731.0	232.3	-103.3	-229.1	-545.1	-870.1	-1164.4
IN 1000 TONNES D2O CUMUL.	5.3	9.5	15.3	22.6	29.4	29.0	27.9	25.2	21.0	15.3
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	8.1	12.6	15.3	18.4	23.6	25.8	23.8	22.4	24.2	21.5
IN 1000 TONNES CUMULATED	55.5	107.4	177.1	261.3	366.0	489.8	614.0	729.3	846.3	960.5
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3104.8	4723.8	6207.8	8142.7	10762.1	10607.5	9736.1	9170.3	8306.9	6626.8
IN 1000 TONNES HM CUMUL.	19.7	39.6	67.1	102.7	149.4	203.7	254.7	300.9	345.7	383.0
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	317.1	2143.9	5904.3	8712.4	11029.4	14691.2
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.6	5.9	25.5	63.2	111.8	175.9

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	4920.5	17647.8	15588.3	11746.6	9421.6	8014.7
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	24.6	112.8	190.8	249.5	296.6	336.7
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	382.2	2441.7	6283.4	8608.4	11105.3
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	1.0	8.0	29.8	67.1	116.3
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	1899.8	3620.5	5264.0	6811.8	8934.6	10907.5	12884.8	15784.0	17292.5	18831.8
IN 1000 TONNES HM CUMUL.	10.9	24.7	46.9	77.1	116.6	167.1	226.2	299.1	381.0	471.0
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1899.8	3620.5	5264.0	6811.8	4014.1	-7210.7	-5573.0	-2902.2	-920.7	-765.7
IN 1000 TONNES HM CUMUL.	10.9	24.7	46.9	77.1	92.0	53.1	25.9	15.5	11.0	10.0
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	88.2	427.8	656.2	183.2	477.6
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.2	1.5	4.2	6.3	8.0
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	58.6	130.5	244.1	392.9	579.9	821.8	1119.6	1513.6	2006.8	2589.8
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	11.2	84.0	256.7	416.9	515.9	689.7
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	156.8	692.5	1375.2	2796.2	5119.0	8129.7
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	10.2	79.1	249.2	414.8	510.4	683.1
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	21.5	229.5	1039.9	2721.5	5021.4	8000.4
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	6.8	62.5	223.6	407.7	491.8	660.3
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	12.2	167.0	870.0	2473.8	4706.9	7581.6
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	135.3	463.0	335.3	74.7	97.6	129.4
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.9	18.9	26.5	32.9	42.1	78.9	218.4	450.7	560.4	719.7
IN TONNES CUMULATED	58.6	130.5	244.1	392.9	580.7	887.7	1628.8	3307.7	5831.6	9030.8
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	47.8	110.9	213.7	354.3	374.5	109.5	34.3	20.9	0.0	0.0
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	55.0	109.0	139.0	160.0	200.0	249.3	242.3	188.3	158.1	135.5
HWR-OT NAT. URANIUM	5.5	10.3	16.9	25.0	35.0	32.7	29.7	24.9	18.3	10.2
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	20.0	117.0	265.8	388.6	497.3
TOTAL	60.5	119.3	155.9	185.0	235.0	302.0	389.0	479.0	565.0	643.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	18.0	54.0	30.2	22.6	44.1	80.4	11.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	3.0	4.8	6.6	8.1	10.2	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	20.0	97.0	148.8	122.8	108.7

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	13.4	19.1	23.3	29.1	37.4	37.9	33.7	26.9	22.3	17.1
IN 1000 TONNES CUMULATED	93.7	174.5	280.3	411.6	578.5	765.2	943.8	1095.1	1218.0	1316.5
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	13.4	19.1	23.3	29.1	37.0	34.5	24.2	17.7	17.7	15.5
IN 1000 TONNES CUMULATED	93.7	174.5	280.3	411.6	576.3	746.5	877.7	983.1	1083.2	1173.9
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	256.4	505.8	659.9	786.9	1013.8	1358.8	1406.0	1406.0	1406.0	1406.0
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	176.2	346.9	456.9	551.0	713.7	941.4	972.6	972.6	972.6	972.6
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	767.8	1076.5	1356.5	1731.0	232.3	-103.3	-229.1	-545.1	-870.1	-1164.4
IN 1000 TONNES D2O CUMUL.	5.3	9.5	15.3	22.6	29.4	29.0	27.9	25.2	21.0	15.3
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	8.1	12.6	15.3	18.4	23.6	25.8	23.8	18.8	15.8	13.0
IN 1000 TONNES CUMULATED	55.5	107.4	177.1	261.3	366.0	489.8	614.0	720.5	807.0	879.2
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3104.8	4723.8	6207.8	8142.7	10762.1	10607.5	9736.1	7785.8	6187.2	4503.6
IN 1000 TONNES HM CUMUL.	19.7	39.6	67.1	102.7	149.4	203.7	254.7	298.6	333.5	360.2
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	292.4	2045.9	5849.0	10141.4	13791.2	17549.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.4	5.1	24.0	64.4	124.4	202.4

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	376.0	2859.7	8166.0	7932.9	3919.7	1346.3
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	1.9	16.2	57.0	96.7	116.3	123.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	395.2	2524.7	6497.1	10507.0	13961.5
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	1.0	8.3	30.8	73.4	134.5
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	1899.8	3620.5	5264.0	6811.8	8934.6	10923.5	12982.4	16020.1	17943.9	19668.0
IN 1000 TONNES HM CUMUL.	10.9	24.7	46.9	77.1	116.6	167.2	226.5	300.2	384.3	478.1
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1899.8	3620.5	5264.0	6811.8	8558.6	7577.4	1849.4	911.5	2957.2	3864.6
IN 1000 TONNES HM CUMUL.	10.9	24.7	46.9	77.1	114.7	149.8	159.6	168.4	187.3	210.5
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	91.2	442.3	678.5	560.0	495.6
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.2	1.6	4.4	7.5	10.1
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	58.6	130.5	244.1	392.9	580.6	828.9	1157.9	1631.5	2192.0	2752.7
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	6.8	57.7	194.3	367.8	513.6	654.9
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	12.0	153.6	786.7	2182.2	4389.3	7304.5
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	6.8	57.7	194.3	367.8	513.6	654.9
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	12.0	153.6	770.2	2182.2	4389.3	7304.5
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	5.6	51.7	185.2	360.3	506.9	646.8
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	8.7	131.5	709.9	2080.5	4252.3	7130.3
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	-0.0	-0.0	16.5	-0.0	-0.0	-0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.9	18.9	26.5	32.9	42.1	76.4	203.3	409.4	567.3	698.4
IN TONNES CUMULATED	58.6	130.5	244.1	392.9	580.7	881.5	1578.6	3116.4	5554.4	8717.6
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	52.1	118.7	225.9	369.8	539.5	679.2	667.9	659.5	734.1	851.7
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Uranium/Plutonium Fuelled
LMFBR Strategies
(low projection)

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	53.0	86.0	123.0	137.0	160.0	172.3	161.3	128.3	91.1	75.5
HWR-OT NAT. URANIUM	5.5	10.3	14.5	19.8	25.0	22.7	19.7	14.9	10.7	5.4
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	10.0	50.0	110.8	172.2	208.1
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	58.5	96.3	137.5	156.8	185.0	205.0	231.0	254.0	274.0	289.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	16.0	33.0	37.2	15.6	27.1	43.4	5.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	3.0	4.8	4.2	5.3	5.4	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	10.0	40.0	60.8	61.4	35.9
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.1	16.6	20.0	23.5	27.3	25.7	22.5	17.2	12.7	9.4
IN 1000 TONNES CUMULATED	86.7	156.1	247.1	356.3	483.7	615.3	735.7	835.1	910.0	965.2
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.1	16.6	20.0	23.5	27.0	23.9	17.5	9.5	7.7	5.7
IN 1000 TONNES CUMULATED	86.7	156.1	247.1	356.3	482.3	604.6	699.9	760.4	810.1	846.8
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	247.8	407.2	582.4	668.9	805.1	991.4	1012.8	1012.8	1012.8	1012.8
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	170.5	281.8	402.7	466.6	563.3	686.3	700.4	700.4	700.4	700.4
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	767.8	713.5	914.8	965.5	156.3	-179.3	-305.1	-619.3	-560.9	-771.6
IN 1000 TONNES D2O CUMUL.	5.3	9.1	12.9	17.6	21.4	20.5	19.1	16.1	13.3	9.6
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.9	10.5	13.3	15.3	17.8	17.6	15.9	12.4	9.1	7.2
IN 1000 TONNES CUMULATED	52.3	96.0	155.8	227.2	309.7	398.5	482.5	553.4	607.2	647.9
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	2695.1	4207.0	5332.0	6537.2	7857.8	7275.3	6459.5	5005.0	3568.5	2471.2
IN 1000 TONNES HM CUMUL.	18.8	36.0	60.1	89.7	125.4	163.8	198.2	226.8	248.3	263.4
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	138.6	857.2	2357.4	4208.1	5715.2	6963.4
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.2	2.2	10.0	26.4	51.6	83.1

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	227.0	1620.0	4342.4	5973.1	4343.4	1713.8
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	1.1	9.2	30.9	60.8	82.5	91.1
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	191.1	1058.4	2631.9	4431.1	5748.8
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.5	3.6	12.8	30.5	55.9
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	1859.8	3150.8	4580.8	5689.8	6889.5	7715.1	8000.8	8634.9	9062.2	8848.2
IN 1000 TONNES HM CUMUL.	10.8	23.3	42.6	68.4	99.9	137.4	176.1	218.3	262.7	306.7
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1859.8	3150.8	4580.8	5689.8	6662.5	5860.0	2423.6	-238.3	16.9	1227.2
IN 1000 TONNES HM CUMUL.	10.8	23.3	42.6	68.4	98.8	127.5	140.9	142.9	146.6	155.5
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	44.1	176.4	268.1	270.8	158.3
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.1	0.7	1.8	3.1	4.2
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	58.0	121.7	219.2	346.7	499.6	682.7	880.7	1111.1	1367.2	1621.7
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	4.1	31.3	99.1	189.4	269.9	327.8
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	7.2	86.6	406.3	1127.5	2283.6	3774.1
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	4.1	31.3	99.1	189.4	269.9	327.8
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	7.2	86.6	406.3	1127.5	2283.6	3774.1
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	3.4	28.4	94.6	184.9	267.2	324.3
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	5.1	74.3	374.7	1072.9	2211.5	3686.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.6	15.9	23.1	27.8	33.1	50.7	106.3	199.0	294.0	350.9
IN TONNES CUMULATED	58.0	121.7	219.2	346.7	499.6	713.8	1103.9	1870.2	3103.3	4712.0
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	51.6	111.4	203.5	326.9	468.9	593.8	630.2	607.4	602.1	652.8
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	53.0	86.0	123.0	137.0	160.0	172.3	161.3	128.3	91.1	75.5
HWR-OT NAT. URANIUM	5.5	10.3	14.5	19.8	25.0	22.7	19.7	14.9	10.7	5.4
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	10.0	50.0	110.8	172.2	208.1
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	58.5	96.3	137.5	156.8	185.0	205.0	231.0	254.0	274.0	289.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	16.0	33.0	37.2	15.6	27.1	43.4	5.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	3.0	4.8	4.2	5.3	5.4	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	10.0	40.0	60.8	61.4	35.9
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.1	16.6	20.0	23.5	27.3	25.7	22.5	17.2	12.7	9.4
IN 1000 TONNES CUMULATED	86.7	156.1	247.1	356.3	483.7	615.3	735.7	835.1	910.0	965.2
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.1	16.6	20.0	23.5	26.8	22.8	15.2	12.8	4.1	7.1
IN 1000 TONNES CUMULATED	86.7	156.1	247.1	356.3	481.4	598.5	682.5	759.5	791.2	834.8
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	247.8	407.2	582.4	668.9	805.1	991.4	1012.8	1012.8	1012.8	1012.8
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	170.5	281.8	402.7	466.6	563.3	686.3	700.4	700.4	700.4	700.4
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	767.8	713.5	914.8	965.5	156.3	-179.3	-305.1	-619.3	-560.9	-771.6
IN 1000 TONNES D2O CUMUL.	5.3	9.1	12.9	17.6	21.4	20.5	19.1	16.1	13.3	9.6
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.9	10.5	13.3	15.3	17.8	17.6	15.9	12.4	9.1	7.2
IN 1000 TONNES CUMULATED	52.3	96.0	155.8	227.2	309.7	398.5	482.5	553.4	607.2	647.9
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	2695.1	4207.0	5332.0	6537.2	7857.8	7275.3	6459.5	5005.0	3568.5	2471.2
IN 1000 TONNES HM CUMUL.	18.8	36.0	60.1	89.7	125.4	163.8	198.2	226.8	248.3	263.4
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	158.5	937.2	2479.0	4330.9	5787.0	7058.4
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.3	2.7	11.0	28.1	53.6	85.6

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	396.3	2494.2	6293.6	17243.0	6862.2	4715.4
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	2.0	14.5	45.9	132.1	166.4	190.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	191.1	1058.4	2631.9	4431.1	5702.9
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.5	3.6	12.8	30.5	55.8
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	1859.8	3150.8	4580.8	5689.8	6889.5	7715.1	8000.8	8634.9	9062.2	8848.2
IN 1000 TONNES HM CUMUL.	10.8	23.3	42.6	68.4	99.9	137.4	176.1	218.3	262.7	306.7
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR. URAN. SPENT FUEL										
IN TONNES HM/YEAR	1859.8	3150.8	4580.8	5689.8	6493.2	4985.8	472.4	-11508.2	-2501.9	-1774.3
IN 1000 TONNES HM CUMUL.	10.8	23.3	42.6	68.4	97.9	122.3	125.9	71.6	62.6	56.6
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	44.1	176.4	268.1	270.8	204.2
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.1	0.7	1.8	3.1	4.3

DETAILS ON FISSILE MATERIAL

1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	58.0	121.7	219.2	346.7	499.5	682.0	876.9	1101.1	1357.3	1633.1
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	5.6	37.2	108.1	198.5	275.2	334.8
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	12.6	115.6	476.1	1242.7	2430.5	3953.8
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	5.1	35.2	105.1	195.4	273.4	332.4
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	10.8	105.6	452.2	1203.3	2380.4	3892.6
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	3.4	28.4	94.6	184.9	267.2	324.3
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	6.1	78.3	380.9	1079.5	2215.7	3691.6
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	1.9	10.0	23.9	39.4	50.1	61.3
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.6	15.9	23.1	27.8	33.1	50.7	106.3	199.0	297.6	359.1
IN TONNES CUMULATED	58.0	121.7	219.2	346.7	499.6	713.8	1103.9	1870.2	3112.5	4750.9
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	47.3	104.6	193.1	313.6	447.8	542.1	516.9	407.1	328.4	335.1

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	53.0	86.0	123.0	137.0	160.0	172.3	161.3	128.3	91.1	75.5
HWR-OT NAT. URANIUM	5.5	10.3	14.5	19.8	25.0	22.7	19.7	14.9	10.7	5.4
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	10.0	50.0	110.8	172.2	208.1
TOTAL	58.5	96.3	137.5	156.8	185.0	205.0	231.0	254.0	274.0	289.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	16.0	33.0	37.2	15.6	27.1	43.4	5.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	3.0	4.8	4.2	5.3	5.4	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	10.0	40.0	60.8	61.4	35.9

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.1	16.6	20.0	23.5	27.3	25.7	22.5	17.2	12.7	9.4
IN 1000 TONNES CUMULATED	86.7	156.1	247.1	356.3	483.7	615.3	735.7	835.1	910.0	965.2
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.1	16.6	20.0	23.5	27.0	24.3	18.9	12.8	9.5	8.3
IN 1000 TONNES CUMULATED	86.7	156.1	247.1	356.3	482.6	606.8	709.2	786.2	844.9	894.6
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	247.8	407.2	582.4	668.9	805.1	991.4	1012.8	1012.8	1012.8	1012.8
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	170.5	281.8	402.7	466.6	563.3	686.3	700.4	700.4	700.4	700.4
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	767.8	713.5	914.8	965.5	156.3	-179.3	-305.1	-619.3	-560.9	-771.6
IN 1000 TONNES D2O CUMUL.	5.3	9.1	12.9	17.6	21.4	20.5	19.1	16.1	13.3	9.6
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.9	10.5	13.3	15.3	17.8	17.6	15.9	12.4	9.1	7.2
IN 1000 TONNES CUMULATED	52.3	96.0	155.8	227.2	309.7	398.5	482.5	553.4	607.2	647.9
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	2695.1	4207.0	5332.0	6537.2	7857.8	7275.3	6459.5	5005.0	3568.5	2471.2
IN 1000 TONNES HM CUMUL.	18.8	36.0	60.1	89.7	125.4	163.8	198.2	226.8	248.3	263.4
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	146.2	898.7	2458.8	4376.8	5932.0	7228.5
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.2	2.4	10.4	27.5	53.7	86.4

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	188.0	1270.1	3128.6	3842.6	2798.2	957.6
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.9	7.3	22.9	42.1	56.1	60.9
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	197.6	1094.4	2721.4	4581.8	5944.4
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.5	3.7	13.3	31.5	57.8
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	1859.8	3150.8	4580.8	5689.8	6889.5	7723.1	8042.8	8733.5	9222.1	9049.1
IN 1000 TONNES HM CUMUL.	10.8	23.3	42.6	68.4	99.9	137.4	176.3	218.8	263.8	308.8
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1859.8	3150.8	4580.8	5689.8	6701.5	6209.9	3637.4	1892.2	1562.1	1983.5
IN 1000 TONNES HM CUMUL.	10.8	23.3	42.6	68.4	99.0	129.5	148.9	161.6	172.9	185.7
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	45.6	182.4	277.2	280.0	163.7
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.1	0.7	1.8	3.2	4.3

DETAILS ON FISSILE MATERIAL

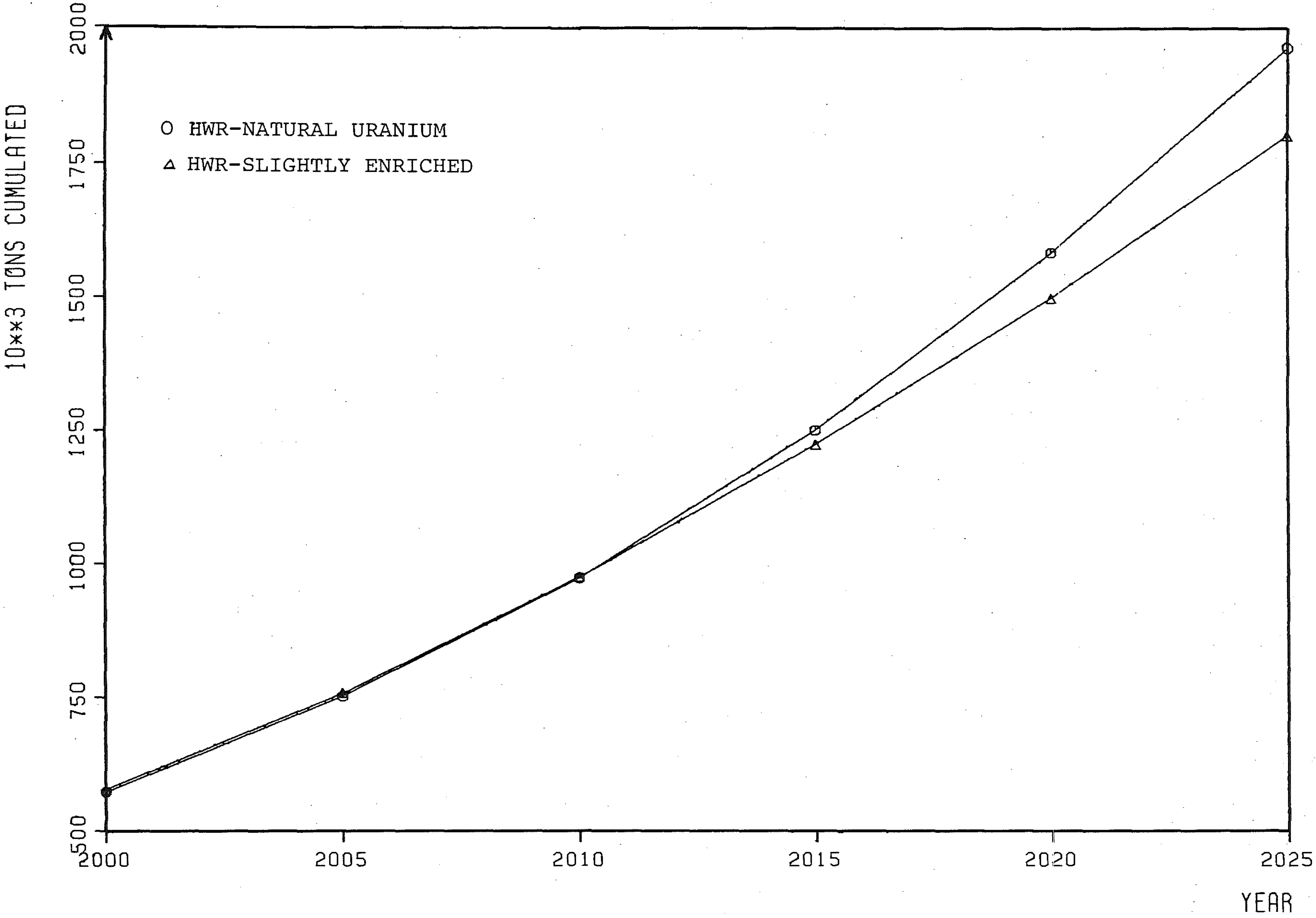
1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	58.0	121.7	219.2	346.7	499.6	684.4	893.4	1143.2	1402.9	1636.1
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	3.4	25.9	82.1	156.8	223.4	271.4
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	6.0	71.7	336.4	933.5	1890.5	3124.5
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	3.4	25.9	82.1	156.8	223.4	271.4
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	6.0	71.7	336.4	933.5	1890.5	3124.5
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	2.8	23.5	78.3	153.1	221.2	268.4
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	4.3	62.1	311.1	889.4	1831.9	3052.9
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.6	15.9	23.1	27.8	33.1	49.5	99.8	177.4	248.8	293.2
IN TONNES CUMULATED	58.0	121.7	219.2	346.7	499.6	710.7	1081.4	1777.5	2843.7	4195.1
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	51.6	111.4	203.5	326.9	470.1	606.2	681.6	722.3	766.5	831.7

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

D. Heavy Water Reactor
Once-Through Strategies
(high projection)



NATURAL URANIUM DEMAND FØR ØECD-NØRTH-AMERICA
HWR - STRATEGIES (HIGH CASE)
(100 % U235 CREDIT ASSUMED FRØM REPRØCESSED SPENT FUEL)

SCENARIO AMERICA HIGH 41 HWR-OT-REF 080981 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	55.0	109.0	139.0	69.5	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	90.5	200.0	219.3	206.3	152.3	122.1	99.5
HWR-OT NAT. URANIUM	5.5	10.3	16.9	25.0	35.0	82.7	182.7	326.7	442.9	543.5
HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	60.5	119.3	155.9	185.0	235.0	302.0	389.0	479.0	565.0	643.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	18.0	54.0	30.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	22.6	44.1	50.4	5.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	3.0	4.8	6.6	8.1	10.2	50.0	103.0	148.8	122.8	108.7
HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	67.9	65.4	0.0	0.0	0.0	0.0	0.0
DURING THE PREVIOUS 5-YEAR PERIOD HWR-OT NAT. URAN. RETROFITTED TO HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	13.4	19.1	25.2	29.0	32.3	39.1	49.5	61.0	71.5	81.1
IN 1000 TONNES CUMULATED	93.7	174.5	286.2	422.1	574.5	752.5	974.2	1250.2	1581.5	1963.2
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	13.4	19.1	25.2	29.0	32.3	39.1	49.5	61.0	71.5	81.1
IN 1000 TONNES CUMULATED	93.7	174.5	286.2	422.1	574.5	752.5	974.2	1250.2	1581.5	1963.2
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	234.9	463.3	605.6	719.9	922.2	1295.8	1696.5	2248.6	2704.2	3107.4
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	190.9	376.1	494.2	593.8	767.2	1107.7	1505.2	2057.3	2512.9	2916.1
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	767.8	1076.5	1356.5	1731.0	7794.3	15854.4	23438.2	20322.3	18795.2	22896.2
IN 1000 TONNES D2O CUMUL.	5.3	9.5	15.3	22.6	38.7	86.8	176.0	289.7	389.5	488.6
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	8.1	12.6	16.6	19.7	22.4	22.8	20.5	15.3	12.3	9.5
IN 1000 TONNES CUMULATED	55.5	107.4	180.5	271.3	376.7	489.6	597.8	687.2	756.3	810.8
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3104.8	4723.8	6927.4	7800.8	8794.0	15171.6	27882.4	44434.9	58083.6	70457.8
IN 1000 TONNES HM CUMUL.	19.7	39.6	68.0	104.5	147.0	207.7	315.6	496.3	752.5	1073.9
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO AMERICA HIGH 41 HWR-OT-REF 080981 CODE SOPKA

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	1899.8	3620.5	5264.0	6961.4	7911.4	12270.8	23411.6	39507.6	53682.7	66172.0
IN 1000 TONNES HM CUMUL.	10.9	24.7	46.9	79.8	117.0	167.1	257.5	418.2	653.1	953.5
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1899.8	3620.5	5264.0	6961.4	7911.4	12270.8	23411.6	39507.6	53682.7	66172.0
IN 1000 TONNES HM CUMUL.	10.9	24.7	46.9	79.8	117.0	167.1	257.5	418.2	653.1	953.5
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	58.6	130.5	244.1	407.6	589.6	809.4	1139.2	1654.9	2352.6	3215.1
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.9	18.9	26.5	34.2	38.6	50.0	79.7	119.7	155.4	188.1
IN TONNES CUMULATED	58.6	130.5	244.1	407.6	589.6	809.4	1139.2	1654.9	2352.6	3215.1
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	47.8	110.9	213.7	368.0	545.6	752.9	1052.5	1520.7	2172.0	2994.1
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	55.0	109.0	139.0	69.5	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	90.5	200.0	219.3	206.3	152.3	122.1	99.5
HWR-OT NAT. URANIUM	5.5	10.3	16.9	8.4	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT LOW ENRICHED	0.0	0.0	0.0	16.6	35.0	82.7	182.7	326.7	442.9	543.5
TOTAL	60.5	119.3	155.9	185.0	235.0	302.0	389.0	479.0	565.0	643.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	18.0	54.0	30.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	22.6	44.1	50.4	5.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	3.0	4.8	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT LOW ENRICHED	0.0	0.0	0.0	8.1	10.2	50.0	103.0	148.8	122.8	108.7

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	67.9	65.4	0.0	0.0	0.0	0.0	0.0
DURING THE PREVIOUS 5-YEAR PERIOD HWR-OT NAT. URAN. RETROFITTED TO HWR-OT LOW ENRICHED	0.0	0.0	0.0	8.4	8.2	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	13.4	19.1	25.7	29.0	32.7	39.4	47.3	52.0	57.4	63.7
IN 1000 TONNES CUMULATED	93.7	174.5	287.9	425.2	578.7	758.6	975.8	1223.6	1496.8	1799.6
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	13.4	19.1	25.7	29.0	32.7	39.4	47.3	52.0	57.4	63.7
IN 1000 TONNES CUMULATED	93.7	174.5	287.9	425.2	578.7	758.6	975.8	1223.6	1496.8	1799.6
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	231.1	456.1	593.8	722.3	936.1	1258.1	1552.5	1951.0	2279.9	2571.0
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	187.1	368.9	482.4	596.2	781.1	1070.0	1361.2	1759.7	2088.6	2379.7
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	767.8	1076.5	2628.0	1683.5	6544.9	16204.0	23889.6	21051.9	19798.4	22896.2
IN 1000 TONNES D2O CUMUL.	5.3	9.5	16.9	24.1	38.6	86.7	175.8	289.6	389.4	488.5
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	8.1	12.6	17.0	20.6	24.4	27.2	28.7	27.3	27.4	28.0
IN 1000 TONNES CUMULATED	55.5	107.4	181.2	275.0	387.2	516.0	655.6	795.9	932.8	1071.3
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3104.8	4723.8	7053.3	6588.6	6303.6	9160.7	14048.0	18704.5	22800.4	27158.4
IN 1000 TONNES HM CUMUL.	19.7	39.6	68.0	101.8	134.3	172.8	230.1	312.4	416.4	540.9
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	1899.8	3620.5	5264.0	5766.7	5242.0	5963.5	9436.0	14242.8	18805.0	23183.7
IN 1000 TONNES HM CUMUL.	10.9	24.7	46.9	76.9	104.4	132.2	172.1	235.2	320.3	426.3
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1899.8	3620.5	5264.0	5766.7	5242.0	5963.5	9436.0	14242.8	18805.0	23183.7
IN 1000 TONNES HM CUMUL.	10.9	24.7	46.9	76.9	104.4	132.2	172.1	235.2	320.3	426.3
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

DETAILS ON FISSILE MATERIAL

1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	58.6	130.5	244.1	401.4	561.2	727.8	937.3	1220.4	1562.8	1965.7
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.9	18.9	26.5	31.5	32.4	34.9	46.3	59.6	72.8	86.5
IN TONNES CUMULATED	58.6	130.5	244.1	401.4	561.2	727.8	937.3	1220.4	1562.8	1965.7
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	47.8	110.9	213.7	363.5	523.1	685.3	882.1	1146.7	1473.6	1861.7

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Heavy Water Reactor
Once-Through Strategies
(low projection)

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	53.0	86.0	123.0	61.5	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	75.5	160.0	157.3	143.3	110.3	73.1	57.5
HWR-OT NAT. URANIUM	5.5	10.3	14.5	19.8	25.0	47.7	87.7	143.7	200.9	231.5
HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	58.5	96.3	137.5	156.8	185.0	205.0	231.0	254.0	274.0	289.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	16.0	33.0	37.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	15.6	27.1	28.4	2.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	3.0	4.8	4.2	5.3	5.4	25.0	43.0	60.8	61.4	35.9
HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	59.9	57.4	0.0	0.0	0.0	0.0	0.0
DURING THE PREVIOUS 5-YEAR PERIOD HWR-OT NAT. URAN. RETROFITTED TO HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.1	16.6	21.8	23.7	23.7	25.3	28.2	31.1	33.8	35.6
IN 1000 TONNES CUMULATED	86.7	156.1	252.6	366.4	484.1	606.1	739.9	888.3	1050.4	1224.1
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.1	16.6	21.8	23.7	23.7	25.3	28.2	31.1	33.8	35.6
IN 1000 TONNES CUMULATED	86.7	156.1	252.6	366.4	484.1	606.1	739.9	888.3	1050.4	1224.1
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	227.1	373.6	534.3	612.1	733.2	931.9	1098.9	1324.5	1552.3	1685.5
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	184.7	304.8	435.7	503.4	606.7	786.8	952.5	1178.1	1405.9	1539.0
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	767.8	713.5	914.8	965.5	3937.3	6514.0	9407.1	9647.2	6312.7	8129.1
IN 1000 TONNES D2O CUMUL.	5.3	9.1	12.9	17.6	26.0	47.9	84.0	130.8	175.9	209.3
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.9	10.5	14.5	16.5	17.3	16.2	14.3	10.8	7.3	5.5
IN 1000 TONNES CUMULATED	52.3	96.0	158.7	236.2	320.6	404.4	480.7	543.4	588.6	620.5
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	2695.1	4207.0	5978.0	6309.5	6237.0	8917.9	13841.9	20261.6	26372.7	30071.0
IN 1000 TONNES HM CUMUL.	18.8	36.0	61.0	91.6	123.8	162.1	219.1	304.3	420.8	562.0
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	1859.8	3150.8	4580.8	5859.1	6133.8	7644.2	12039.3	18159.3	24591.1	28720.9
IN 1000 TONNES HM CUMUL.	10.8	23.3	42.6	70.8	100.8	135.2	185.4	263.0	372.3	506.0
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1859.8	3150.8	4580.8	5859.1	6133.8	7644.2	12039.3	18159.3	24591.1	28720.9
IN 1000 TONNES HM CUMUL.	10.8	23.3	42.6	70.8	100.8	135.2	185.4	263.0	372.3	506.0
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	58.0	121.7	219.2	360.0	509.7	668.5	866.1	1132.5	1472.4	1864.9
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.6	15.9	23.1	29.2	30.7	33.0	44.0	58.3	72.9	83.0
IN TONNES CUMULATED	58.0	121.7	219.2	360.0	509.7	668.5	866.1	1132.5	1472.4	1864.9
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	47.3	104.6	193.1	325.9	474.0	628.7	815.4	1064.4	1385.8	1765.2
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	53.0	86.0	123.0	61.5	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	75.5	160.0	157.3	143.3	110.3	73.1	57.5
HWR-OT NAT. URANIUM	5.5	10.3	14.5	7.2	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT LOW ENRICHED	0.0	0.0	0.0	12.6	25.0	47.7	87.7	143.7	200.9	231.5
TOTAL	58.5	96.3	137.5	156.8	185.0	205.0	231.0	254.0	274.0	289.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	16.0	33.0	37.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	15.6	27.1	28.4	2.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	3.0	4.8	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT LOW ENRICHED	0.0	0.0	0.0	5.3	5.4	25.0	43.0	60.8	61.4	35.9

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	59.9	57.4	0.0	0.0	0.0	0.0	0.0
DURING THE PREVIOUS 5-YEAR PERIOD HWR-OT NAT. URAN. RETROFITTED TO HWR-OT LOW ENRICHED	0.0	0.0	0.0	7.3	7.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.1	16.6	22.2	23.7	23.6	24.9	26.8	27.4	26.9	27.9
IN 1000 TONNES CUMULATED	86.7	156.1	253.8	368.7	485.9	606.7	736.0	871.6	1007.0	1144.1
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.1	16.6	22.2	23.7	23.6	24.9	26.8	27.4	26.9	27.9
IN 1000 TONNES CUMULATED	86.7	156.1	253.8	368.7	485.9	606.7	736.0	871.6	1007.0	1144.1
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	223.3	366.4	524.2	615.9	750.2	923.1	1045.7	1208.6	1373.0	1469.1
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	180.9	297.6	425.6	507.1	623.7	778.0	899.3	1062.1	1226.6	1322.7
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	767.8	713.5	2005.8	919.9	2870.3	6863.6	9858.5	10376.8	6951.1	8129.1
IN 1000 TONNES D2O CUMUL.	5.3	9.1	14.3	18.8	25.9	47.8	83.9	130.7	175.8	209.2
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.9	10.5	14.8	17.1	18.5	18.5	18.1	16.2	13.9	13.2
IN 1000 TONNES CUMULATED	52.3	96.0	159.3	238.9	327.8	420.1	511.2	596.8	672.2	739.8
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	2695.1	4207.0	6074.8	5380.5	4391.4	5351.1	7151.0	9005.2	10290.6	11577.2
IN 1000 TONNES HM CUMUL.	18.8	36.0	61.0	89.5	114.5	138.9	169.9	210.3	258.9	313.4
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	1859.8	3150.8	4580.8	4954.1	4223.0	3966.6	5263.7	6982.8	8802.6	10342.3
IN 1000 TONNES HM CUMUL.	10.8	23.3	42.6	68.6	91.6	112.1	136.4	169.6	211.8	260.4
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1859.8	3150.8	4580.8	4954.1	4223.0	3966.6	5263.7	6982.8	8802.6	10342.3
IN 1000 TONNES HM CUMUL.	10.8	23.3	42.6	68.6	91.6	112.1	136.4	169.6	211.8	260.4
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	58.0	121.7	219.2	355.5	489.0	615.0	750.9	911.5	1092.4	1283.4
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.6	15.9	23.1	27.2	26.3	24.2	27.8	31.7	35.5	39.7
IN TONNES CUMULATED	58.0	121.7	219.2	355.5	489.0	615.0	750.9	911.5	1092.4	1283.4
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	47.3	104.6	193.1	322.6	457.6	583.8	716.3	870.9	1046.7	1235.0
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

E. Thorium Strategies
(high projection)

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	55.0	109.0	139.0	69.5	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	90.5	200.0	249.3	242.3	188.3	158.1	135.5
HWR-OT NAT. URANIUM	5.5	10.3	16.9	25.0	35.0	32.7	29.7	24.9	18.3	10.2
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	20.0	117.0	265.8	388.6	497.3
TOTAL	60.5	119.3	155.9	185.0	235.0	302.0	389.0	479.0	565.0	643.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	18.0	54.0	30.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	22.6	44.1	80.4	11.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	3.0	4.8	6.6	8.1	10.2	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	20.0	97.0	148.8	122.8	108.7

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	67.9	65.4	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	13.4	19.1	25.2	29.0	35.3	45.0	50.4	46.6	45.1	46.9
IN 1000 TONNES CUMULATED	93.7	174.5	286.2	422.1	582.5	782.6	1021.5	1263.9	1493.2	1723.3
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	13.4	19.1	25.2	29.0	35.3	45.0	50.4	46.6	45.1	46.9
IN 1000 TONNES CUMULATED	93.7	174.5	286.2	422.1	582.5	782.6	1021.5	1263.9	1493.2	1723.3
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	234.9	463.3	605.6	719.9	922.2	1252.7	1441.6	1668.5	1855.8	2021.6
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	190.9	376.1	494.2	593.8	767.2	1037.5	1182.8	1354.0	1495.2	1620.2
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.2	1.0	1.7	1.6	1.5	1.7
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.4	3.2	9.8	18.1	25.9	33.9
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	767.8	1076.5	1356.5	1731.0	232.3	-103.3	-229.1	-545.1	-870.1	-1164.4
IN 1000 TONNES D2O CUMUL.	5.3	9.5	15.3	22.6	29.4	29.0	27.9	25.2	21.0	15.3
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	8.1	12.6	16.6	19.7	26.4	40.5	50.0	47.9	48.4	53.7
IN 1000 TONNES CUMULATED	55.5	107.4	180.5	271.3	384.7	544.6	766.0	1013.4	1255.4	1508.3
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3104.8	4723.8	6927.4	7800.8	8434.2	7909.3	7187.3	5790.3	4508.4	3095.5
IN 1000 TONNES HM CUMUL.	19.7	39.6	68.0	104.5	145.5	187.2	225.1	257.6	283.3	302.3
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	181.5	1031.0	2232.5	3118.6	3916.4	4950.1
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.3	2.6	10.3	23.9	41.7	63.6
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	74.6	497.3	1348.1	2260.1	3040.1
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.2	1.6	6.2	15.3	28.5
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	1899.8	3620.5	5264.0	6961.4	7911.4	7541.3	7806.0	7562.1	7164.4	6906.7
IN 1000 TONNES HM CUMUL.	10.9	24.7	46.9	79.8	117.0	155.3	194.8	236.7	275.4	311.3
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1899.8	3620.5	5264.0	6961.4	7911.4	7432.8	7144.3	5961.7	4696.2	3682.4
IN 1000 TONNES HM CUMUL.	10.9	24.7	46.9	79.8	117.0	155.0	192.6	228.8	257.4	279.1
PU OR THORIUM SPENT FUEL										
IN TONNFS HM/YEAR	0.0	0.0	0.0	0.0	0.0	33.9	164.4	252.2	208.2	184.2
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.1	0.6	1.6	2.8	3.8

DETAILS ON FISSILE MATERIAL

1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	58.6	130.5	244.1	407.6	589.6	781.3	979.6	1171.8	1324.7	1446.5
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.9	18.9	26.5	34.2	38.6	38.7	38.3	31.7	25.6	21.7
IN TONNES CUMULATED	58.6	130.5	244.1	407.6	589.6	781.3	979.6	1171.8	1324.7	1446.5
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	47.8	110.9	213.7	368.0	545.6	732.9	930.0	1126.2	1288.7	1417.8

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	55.0	109.0	139.0	69.5	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	90.5	200.0	249.3	242.3	188.3	275.6	361.7
HWR-OT NAT. URANIUM	5.5	10.3	16.9	25.0	35.0	32.7	29.7	24.9	18.3	10.2
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	20.0	117.0	265.8	271.1	271.1
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	60.5	119.3	155.9	185.0	235.0	302.0	389.0	479.0	565.0	643.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	18.0	54.0	30.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	22.6	44.1	80.4	11.0	0.0	117.5	108.7
HWR-OT NAT. URANIUM	3.0	4.8	6.6	8.1	10.2	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	20.0	97.0	148.8	5.3	0.0
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	67.9	65.4	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	13.4	19.1	25.2	29.0	33.1	33.5	29.7	33.4	42.4	52.5
IN 1000 TONNES CUMULATED	93.7	174.5	286.2	422.1	576.7	741.7	899.5	1059.4	1248.7	1486.3
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	13.4	19.1	25.2	29.0	32.6	29.5	14.6	20.3	37.7	47.8
IN 1000 TONNES CUMULATED	93.7	174.5	286.2	422.1	574.6	719.6	801.5	896.1	1061.6	1275.6
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	234.9	463.3	605.6	719.9	922.2	1222.2	1263.2	1263.2	1701.5	2106.9
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	190.9	376.1	494.2	593.8	767.2	1014.5	1048.3	1048.3	1409.6	1743.8
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.4	2.0	3.9	2.1	0.3	0.3
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.7	5.8	20.0	36.3	42.5	44.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	767.8	1076.5	1356.5	1731.0	3257.1	14718.9	23164.6	2278.0	1190.4	896.0
IN 1000 TONNES D2O CUMUL.	5.3	9.5	15.3	22.6	33.1	62.4	146.9	237.5	246.5	251.1
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	8.1	12.6	16.6	19.7	23.6	26.2	24.2	23.9	32.9	42.4
IN 1000 TONNES CUMULATED	55.5	107.4	180.5	271.3	379.7	504.3	630.3	750.7	892.7	1080.9
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	3104.8	4723.8	6927.4	7800.8	8434.2	7909.3	7187.3	7489.8	7866.4	8446.9
IN 1000 TONNES HM CUMUL.	19.7	39.6	68.0	104.5	145.5	187.2	225.1	260.3	298.8	339.3
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	397.7	2482.8	6199.8	7468.3	7509.8	7509.8
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.5	5.8	26.3	63.9	101.5	139.1
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	361.6	3446.8	11220.9	19634.1	12723.0	10021.1
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	1.8	19.0	75.1	173.3	236.9	287.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	302.4	2030.9	5550.5	7578.5	7648.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.8	6.6	25.5	58.4	96.4
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	1899.8	3620.5	5264.0	6961.4	7911.4	7819.8	9585.7	12141.9	13632.9	14235.6
IN 1000 TONNES HM CUMUL.	10.9	24.7	46.9	79.8	117.0	156.0	200.6	258.4	324.8	395.2
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1899.8	3620.5	5264.0	6961.4	7549.8	3986.0	-4076.6	-13672.3	-6691.1	-3433.5
IN 1000 TONNES HM CUMUL.	10.9	24.7	46.9	79.8	115.2	136.0	117.4	55.5	23.8	6.0
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	84.6	410.5	629.7	22.5	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.2	1.4	4.0	5.7	5.7
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	58.6	130.5	244.1	407.6	589.5	777.1	945.8	1043.1	1057.8	1072.0
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	11.1	58.2	108.5	62.2	60.5	60.5
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	11.5	122.4	497.3	1040.2	1351.2	1653.5
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	11.1	58.2	108.5	62.2	60.5	60.5
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	11.5	122.4	497.3	1040.2	1351.2	1653.5
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	10.9	57.1	106.9	62.2	60.5	60.5
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	10.6	117.0	484.2	1025.1	1336.1	1638.3
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.9	18.9	26.5	34.2	38.6	39.3	41.8	40.4	47.3	56.2
IN TONNES CUMULATED	58.6	130.5	244.1	407.6	89.6	782.6	991.0	1213.8	1442.8	1705.1
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	52.1	118.7	225.9	384.7	552.5	630.6	459.6	135.9	50.8	4.0
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	4.4	29.8	81.5	111.2	112.2
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	11.1	96.7	374.9	856.5	1415.2
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	4.4	29.8	81.5	111.2	112.2
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	11.1	96.7	374.9	856.5	1415.2
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	4.0	27.8	78.4	111.1	112.2
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	10.1	89.6	355.0	828.8	1387.1
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	5.7	36.0	91.1	112.1	112.8
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	14.3	118.5	436.4	944.4	1506.6

Thorium Strategies
(low projection)

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	53.0	86.0	123.0	61.5	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	75.5	160.0	172.3	161.3	128.3	91.1	75.5
HWR-OT NAT. URANIUM	5.5	10.3	14.5	19.8	25.0	22.7	19.7	14.9	10.7	5.4
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	10.0	50.0	110.8	172.2	208.1
TOTAL	58.5	96.3	137.5	156.8	185.0	205.0	231.0	254.0	274.0	289.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	16.0	33.0	37.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	15.6	27.1	43.4	5.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	3.0	4.8	4.2	5.3	5.4	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	10.0	40.0	60.8	61.4	35.9

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	59.9	57.4	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.1	16.6	21.8	23.7	25.2	27.6	28.4	25.9	21.1	20.7
IN 1000 TONNES CUMULATED	86.7	156.1	252.6	366.4	488.0	619.5	759.5	895.2	1012.6	1117.2
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.1	16.6	21.8	23.7	25.2	27.6	28.4	25.9	21.1	20.7
IN 1000 TONNES CUMULATED	86.7	156.1	252.6	366.4	488.0	619.5	759.5	895.2	1012.6	1117.2
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	227.1	373.6	534.3	612.1	733.2	910.4	990.0	1082.7	1176.4	1231.1
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	184.7	304.8	435.7	503.4	606.7	751.7	813.1	883.0	953.6	994.9
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.1	0.4	0.7	0.8	0.5	0.6
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.2	1.4	4.1	7.8	11.2	14.1
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	767.8	713.5	914.8	965.5	156.3	-179.3	-305.1	-619.3	-560.9	-771.6
IN 1000 TONNES D2O CUMUL.	5.3	9.1	12.9	17.6	21.4	20.5	19.1	16.1	13.3	9.6
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.9	10.5	14.5	16.5	19.3	23.9	26.8	26.1	21.8	23.2
IN 1000 TONNES CUMULATED	52.3	96.0	158.7	236.2	324.7	429.8	554.6	686.8	809.0	920.4
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	2695.1	4207.0	5978.0	6309.5	6057.1	5421.7	4759.1	3666.3	2604.6	1689.9
IN 1000 TONNES HM CUMUL.	18.8	36.0	61.0	91.6	123.0	152.2	177.7	198.8	214.5	225.2
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	90.7	438.4	928.7	1392.7	1624.2	2000.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.1	1.2	4.4	10.2	18.0	27.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	37.3	217.0	565.7	980.2	1301.4
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.1	0.7	2.7	6.6	12.3
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	1859.8	3150.8	4580.8	5859.1	6133.8	5279.4	5070.8	4499.6	3874.7	3442.4
IN 1000 TONNES HM CUMUL.	10.8	23.3	42.6	70.8	100.8	129.3	156.2	182.2	205.5	224.3
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1859.8	3150.8	4580.8	5859.1	6133.8	5225.2	4786.1	3830.9	2790.4	2080.2
IN 1000 TONNES HM CUMUL.	10.8	23.3	42.6	70.8	100.8	129.1	155.2	178.8	197.7	210.4
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	17.0	67.8	103.1	104.1	60.8
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.7	1.2	1.6
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	58.0	121.7	219.2	360.0	509.7	654.5	792.3	919.4	1021.7	1093.2
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.6	15.9	23.1	29.2	30.7	27.4	25.7	20.9	15.3	12.3
IN TONNES CUMULATED	58.0	121.7	219.2	360.0	509.7	654.5	792.3	919.4	1021.7	1093.2
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	47.3	104.6	193.1	325.9	474.0	618.7	758.3	889.3	998.3	1076.8
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	53.0	86.0	123.0	61.5	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	75.5	160.0	172.3	161.3	128.3	91.1	86.1
HWR-OT NAT. URANIUM	5.5	10.3	14.5	19.8	25.0	22.7	19.7	14.9	10.7	5.4
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	10.0	50.0	110.8	172.2	197.5
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	58.5	96.3	137.5	156.8	185.0	205.0	231.0	254.0	274.0	289.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	16.0	33.0	37.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	15.6	27.1	43.4	5.0	0.0	0.0	10.6
HWR-OT NAT. URANIUM	3.0	4.8	4.2	5.3	5.4	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	10.0	40.0	60.8	61.4	25.3
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

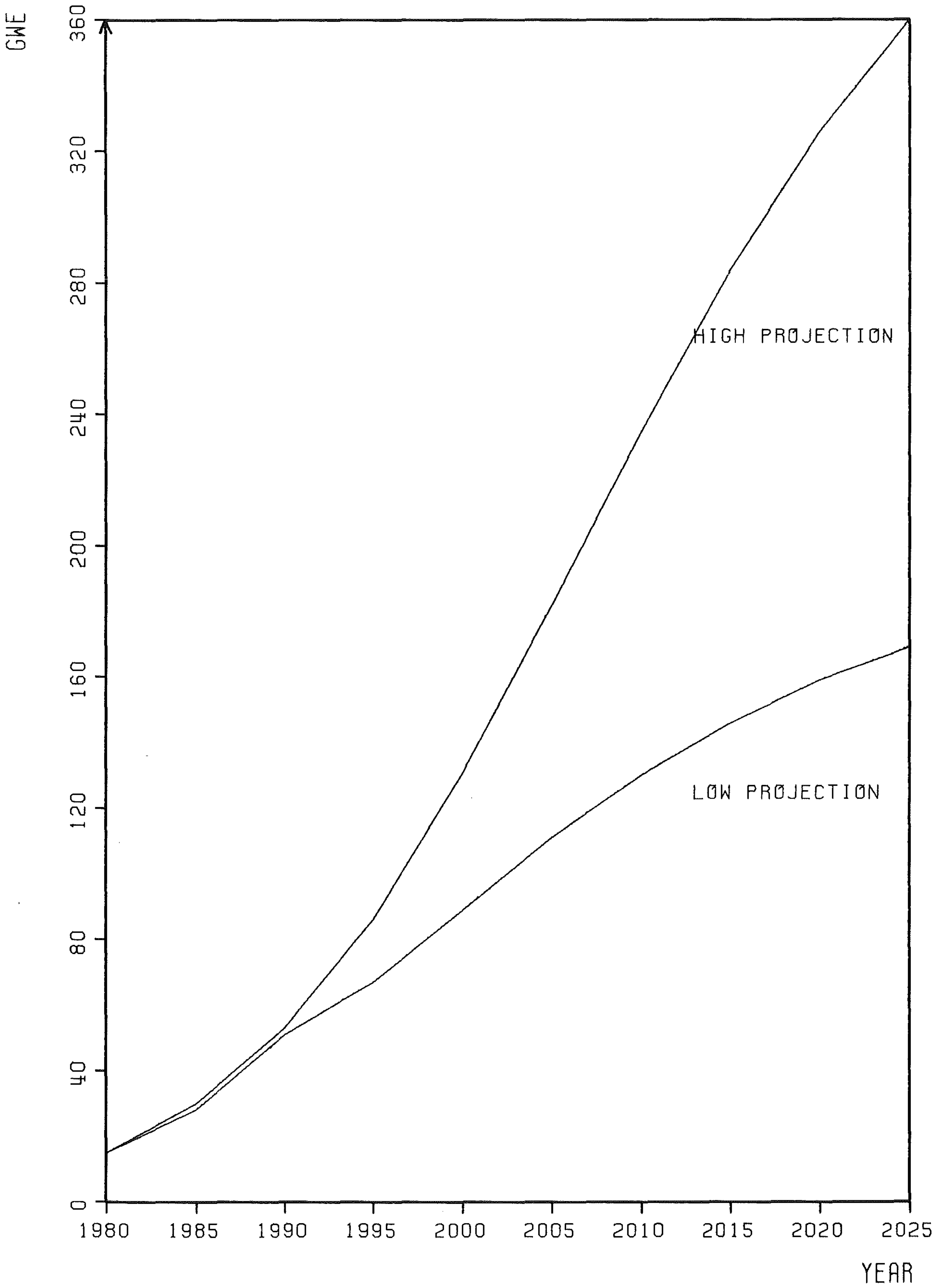
	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	59.9	57.4	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

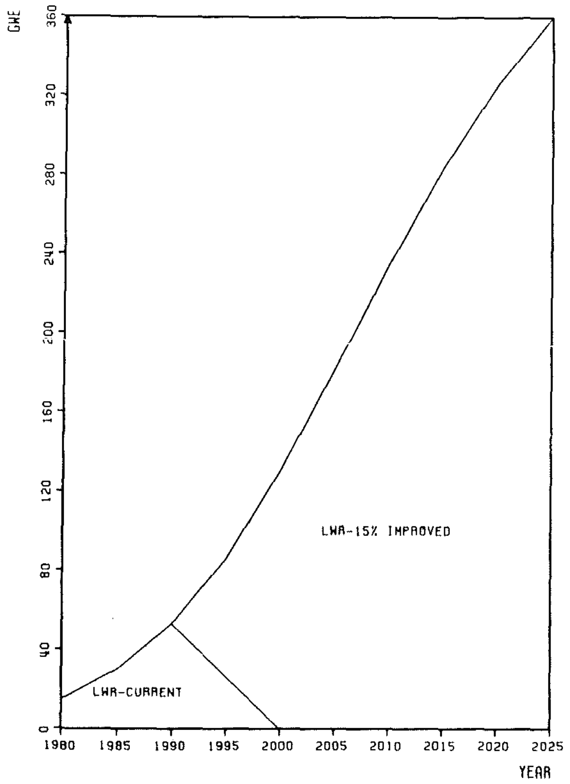
	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	11.1	16.6	21.8	23.7	24.1	22.7	19.9	15.2	12.1	13.4
IN 1000 TONNES CUMULATED	86.7	156.1	252.6	366.4	485.2	601.5	707.9	795.6	864.1	928.4
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	11.1	16.6	21.8	23.7	23.9	20.9	14.3	4.9	4.1	6.9
IN 1000 TONNES CUMULATED	86.7	156.1	252.6	366.4	484.1	591.3	670.0	706.1	734.6	766.8
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	227.1	373.6	534.3	612.1	733.2	895.1	913.8	913.8	913.8	953.4
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	184.7	304.8	435.7	503.4	606.7	740.2	755.6	755.6	755.6	788.3
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.2	0.8	1.6	1.9	1.3	0.5
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.4	2.6	8.5	17.3	25.7	30.6
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	767.8	713.5	914.8	965.5	1668.7	5946.3	9270.3	9510.4	4567.9	729.1
IN 1000 TONNES D2O CUMUL.	5.3	9.1	12.9	17.6	23.2	35.7	69.5	115.6	158.0	175.7
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	6.9	10.5	14.5	16.5	17.9	17.9	16.2	12.7	9.6	10.4
IN 1000 TONNES CUMULATED	52.3	96.0	158.7	236.2	322.2	411.7	497.0	569.1	624.8	674.9
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	2695.1	4207.0	5978.0	6309.5	6057.1	5421.7	4759.1	3666.3	2758.4	2538.3
IN 1000 TONNES HM CUMUL.	18.8	36.0	61.0	91.6	123.0	152.2	177.7	198.8	214.7	227.5
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	198.8	1072.4	2594.0	4290.3	5272.5	5469.9
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.3	2.7	11.4	28.6	53.3	80.8
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	180.8	1569.7	4787.1	7335.7	7133.0	12531.7
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.9	8.8	32.7	69.4	105.0	167.7
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	151.2	886.9	2329.8	4054.2	5240.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.4	3.0	11.0	27.0	50.2
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	1859.8	3150.8	4580.8	5859.1	6133.8	5418.7	5842.2	6418.0	7104.5	7547.9
IN 1000 TONNES HM CUMUL.	10.8	23.3	42.6	70.8	100.8	129.6	158.8	191.5	227.7	264.8
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	1859.8	3150.8	4580.8	5859.1	5953.0	3655.5	-1.0	-3504.9	-4342.6	-10330.6
IN 1000 TONNES HM CUMUL.	10.8	23.3	42.6	70.8	99.9	120.4	122.5	109.5	92.7	43.0
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	42.3	169.3	257.3	259.9	106.9
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.1	0.6	1.7	3.0	3.9
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	58.0	121.7	219.2	360.0	509.6	652.4	777.1	863.7	885.5	841.5
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	5.5	24.4	44.8	58.7	52.4	44.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	5.8	56.3	212.5	470.9	778.0	1039.5
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	5.5	24.4	44.8	58.7	52.4	44.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	5.8	56.3	212.5	470.9	778.0	1039.5
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	5.4	23.9	44.2	58.0	52.1	44.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	5.3	54.0	207.1	462.0	767.3	1028.5
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	9.6	15.9	23.1	29.2	30.7	27.6	27.2	24.6	21.4	20.9
IN TONNES CUMULATED	58.0	121.7	219.2	360.0	509.7	655.2	797.4	937.5	1064.2	1172.4
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	51.6	111.4	203.5	340.3	483.3	577.3	562.7	444.0	264.6	112.3
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	2.2	13.0	34.2	59.5	76.9
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	5.5	43.6	161.7	395.9	736.9
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	2.2	13.0	34.2	59.5	76.9
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	5.5	43.6	161.7	395.9	736.9
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	2.0	12.2	32.9	58.2	76.4
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	5.0	40.5	153.3	381.2	717.7
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	2.9	15.6	38.2	63.6	78.8
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	7.1	53.2	187.5	441.9	798.1

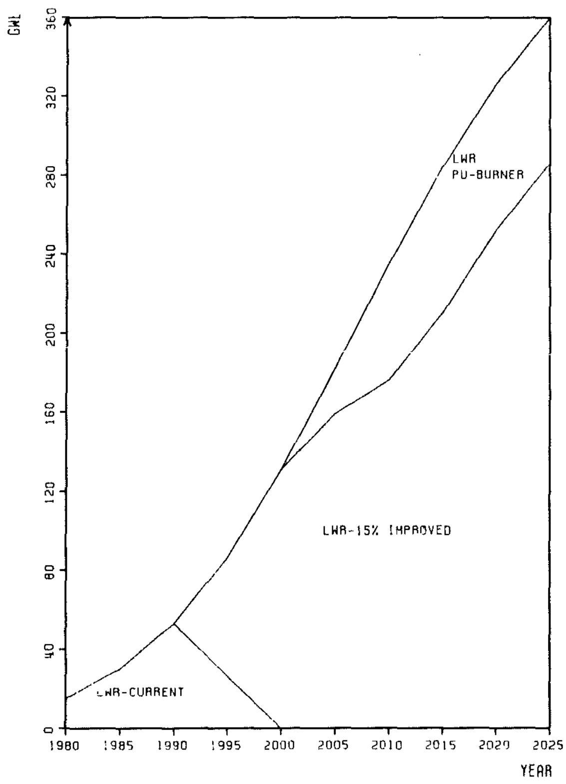
IV.3.3 OECD-Pacific



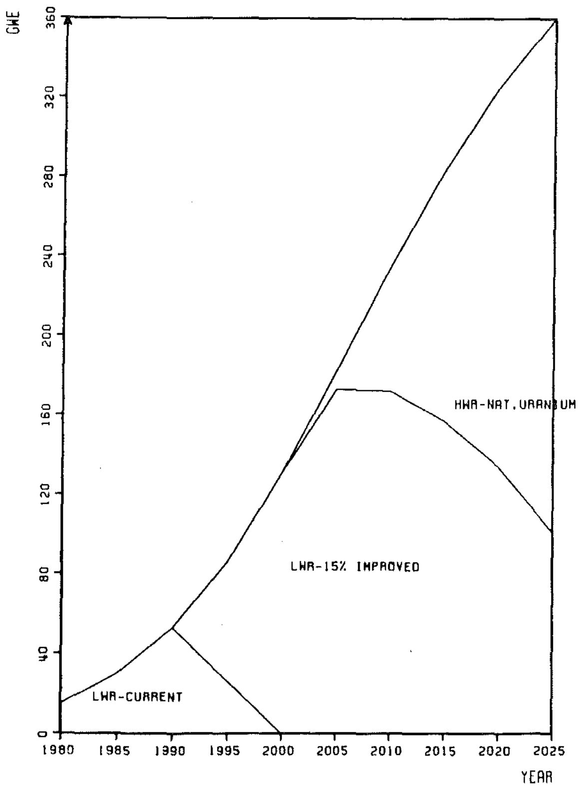
INSTALLED NUCLEAR CAPACITY FOR OECD PACIFIC
HWR-TH/PU-REF STRATEGY (HIGH CASE)



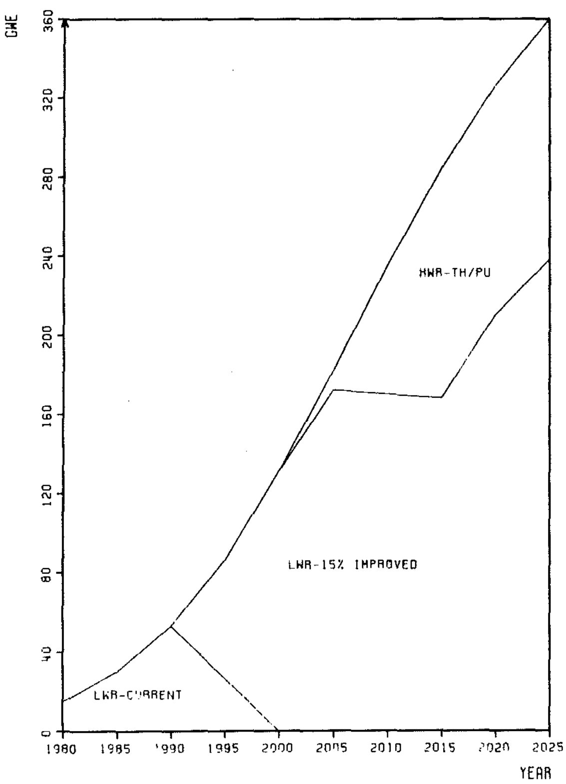
OECD-PACIFIC LWR-OT-REF STRATEGY (HIGH CASE)



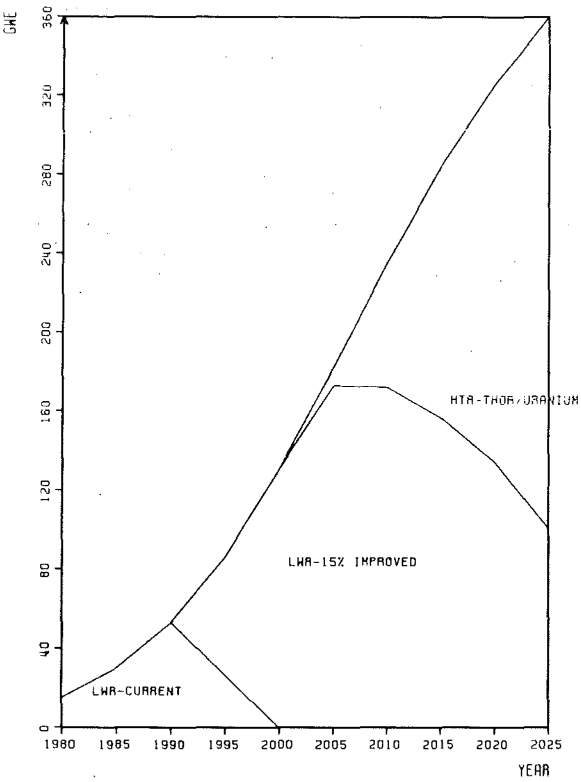
OECD-PACIFIC LWR-PU-REF STRATEGY (HIGH CASE)



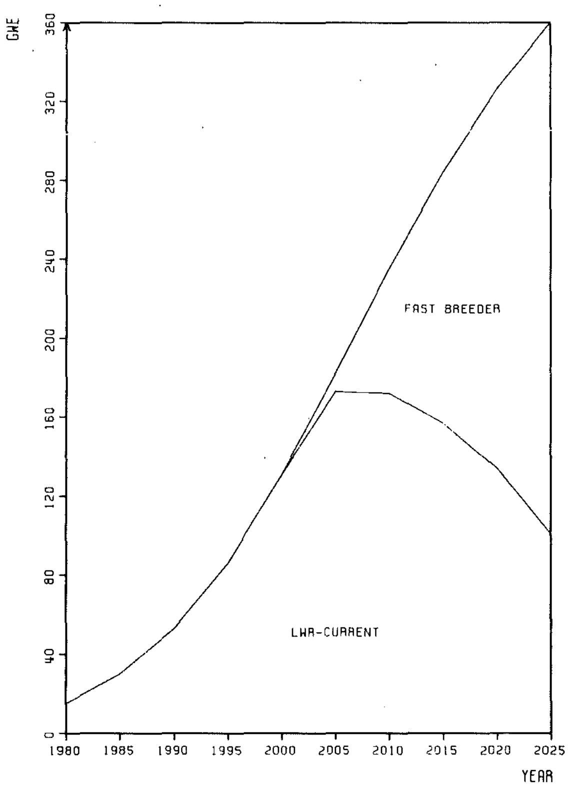
OECD-PACIFIC HWR-OT-REF STRATEGY (HIGH CASE)



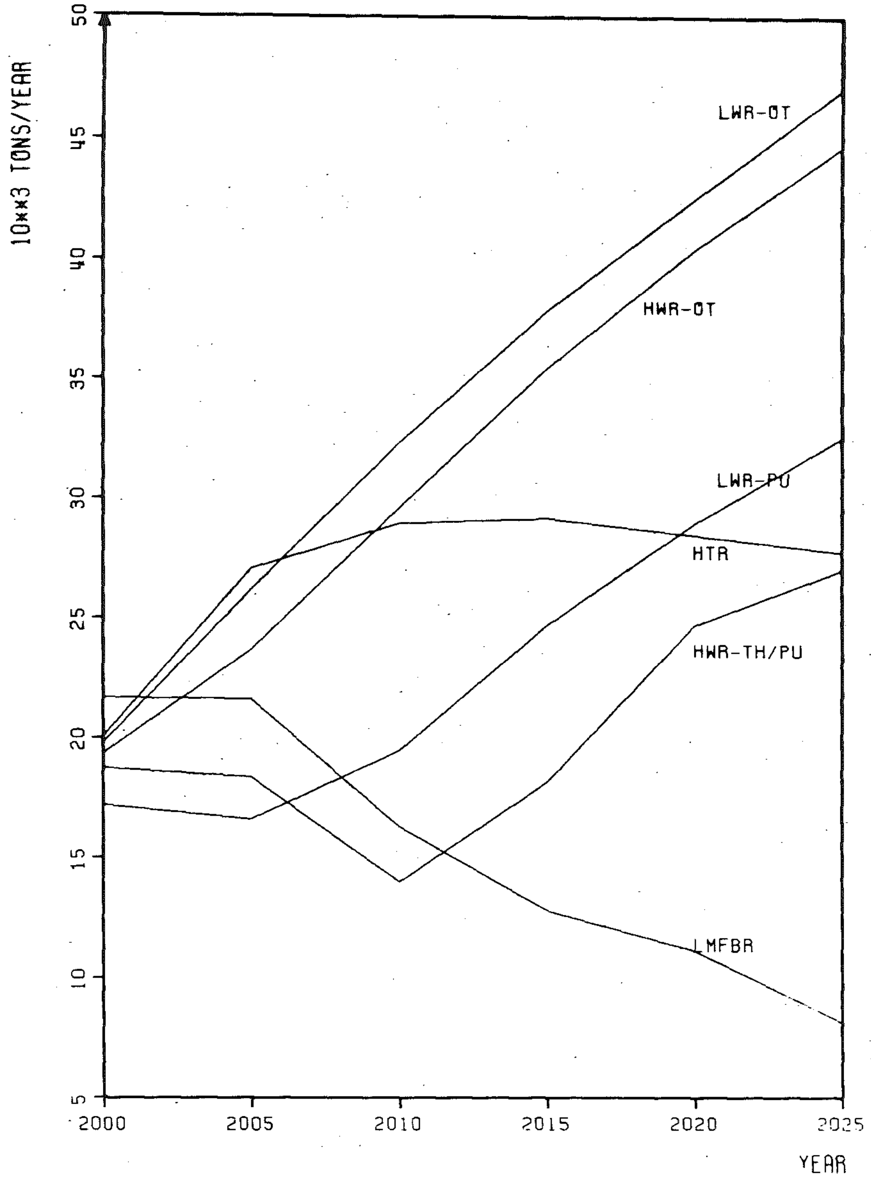
OECD-PACIFIC
HWR-TH/PU-REF STRATEGY (HIGH CASE)



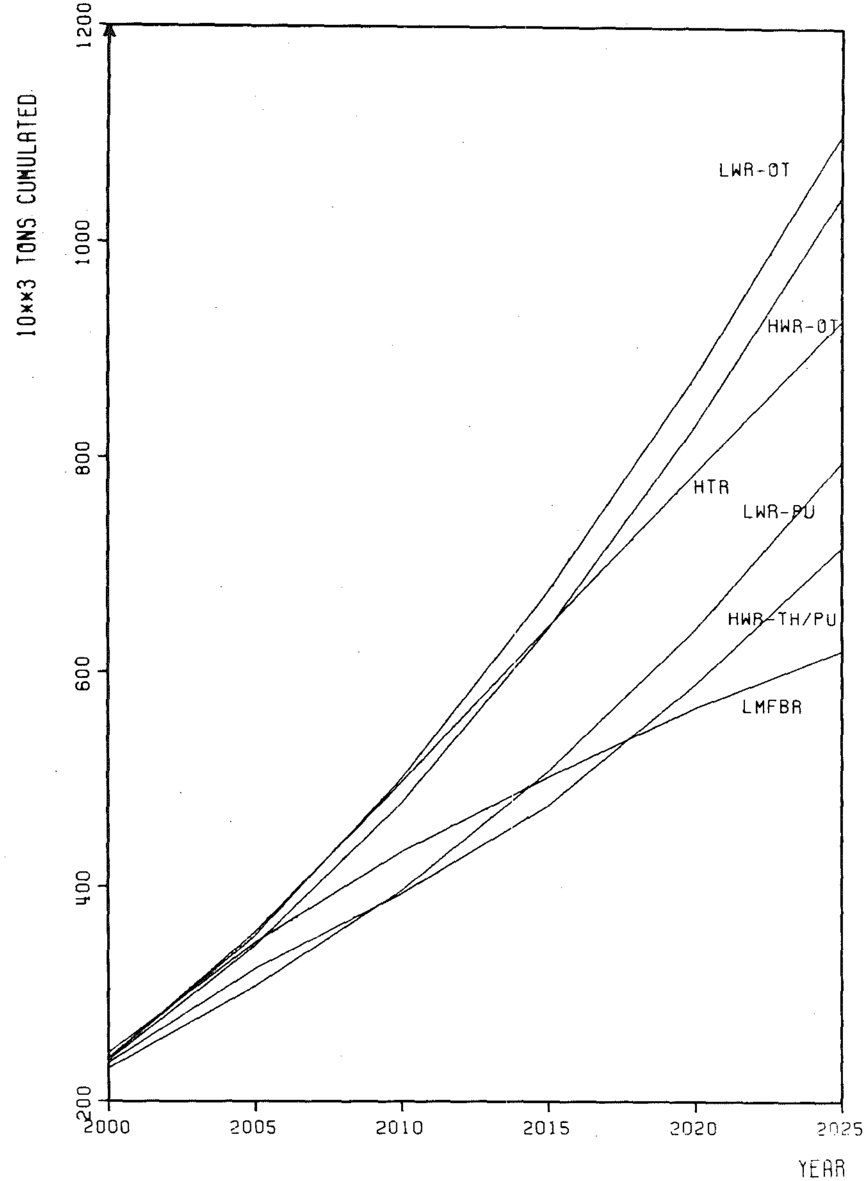
OECD-PACIFIC
HTR-TH/U-REF STRATEGY (HIGH CASE)



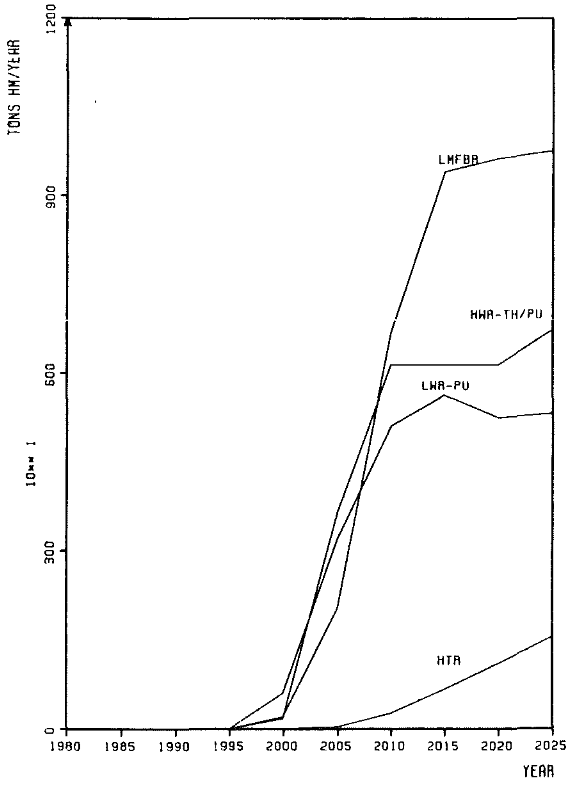
OECD-PACIFIC LMFBR-REF STRATEGY (HIGH CASE)



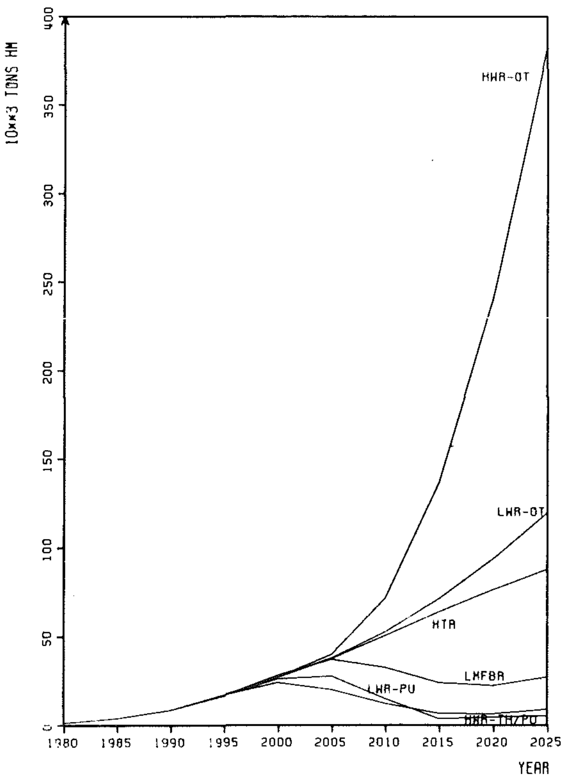
NATURAL URANIUM DEMAND FOR OECD-PACIFIC
REFERENCE STRATEGIES (HIGH CASE)
(100 % U235 CREDIT ASSUMED FROM REPROCESSED SPENT FUEL)



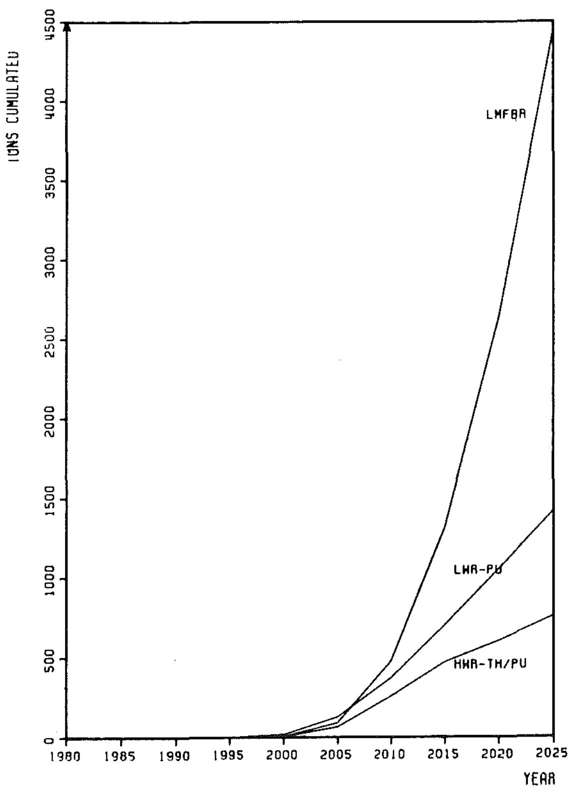
NATURAL URANIUM DEMAND FOR OECD-PACIFIC
REF STRATEGY STRATEGIES (HIGH CASE)
(100 % U235 CREDIT ASSUMED FROM REPROCESSED SPENT FUEL)



ANNUAL REPROCESSING REQUIREMENTS FOR
OECD-PACIFIC REFERENCE STRATEGIES (HIGH CASE)

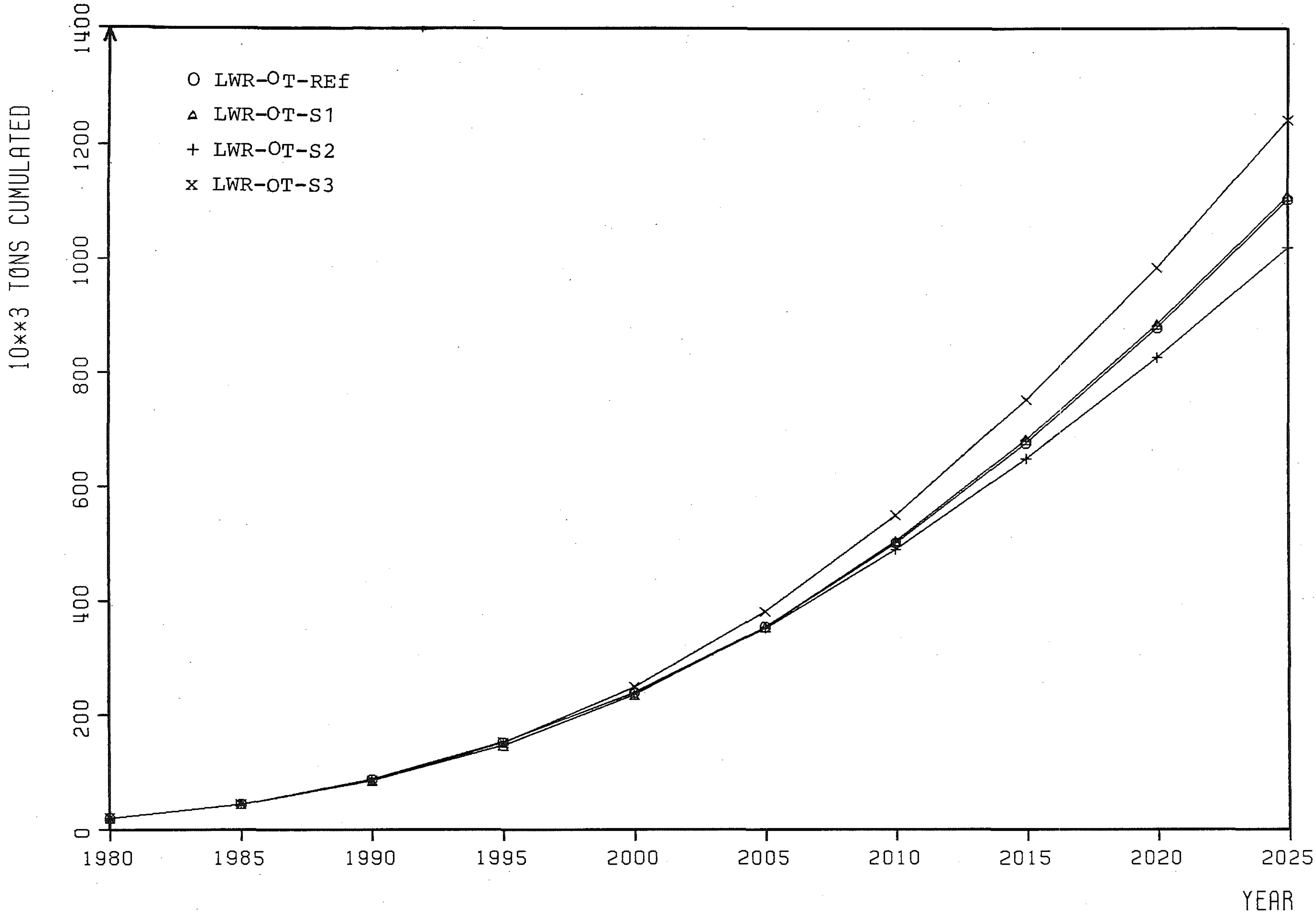


AMOUNT OF UNREPROCESSED SPENT FUEL
IN OECD-PACIFIC REFERENCE STRATEGIES (HIGH CASE)



FISSILE PLUTONIUM REPROCESSED
IN OECD-PACIFIC REFERENCE STRATEGIES (HIGH CASE)

A. Light Water Reactor
Once-Through Strategies
(high projection)



NATURAL URANIUM DEMAND FØR ØECD-PACIFIC
LWR STRATEGIES (HIGH CASE)

SCENARIO PACIFIC HIGH 11 LWR-OT-REF 200881 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	15.0	30.0	53.0	26.5	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	59.5	131.0	182.0	235.0	284.0	326.0	360.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	15.0	30.0	53.0	86.0	131.0	182.0	235.0	284.0	326.0	360.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	10.0	15.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	33.0	45.8	55.2	63.0	64.0	65.0	67.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	26.5	25.7	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	3.5	6.2	10.7	15.1	19.8	26.2	32.3	37.8	42.5	47.0
IN 1000 TONNES CUMULATED	20.0	44.4	87.5	152.4	239.4	354.4	500.6	675.9	876.7	1100.6
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	3.5	6.2	10.7	15.1	19.8	26.2	32.3	37.8	42.5	47.0
IN 1000 TONNES CUMULATED	20.0	44.4	87.5	152.4	239.4	354.4	500.6	675.9	876.7	1100.6
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	58.5	117.0	206.7	329.8	500.7	706.6	941.5	1180.2	1422.7	1672.6
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	46.5	93.0	164.3	265.8	406.7	576.4	770.1	966.9	1166.7	1372.8
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	2.2	4.1	7.4	11.4	15.9	21.5	26.9	31.9	36.2	40.0
IN 1000 TONNES CUMULATED	11.9	27.7	56.5	103.4	171.6	265.0	386.0	533.2	703.6	894.2
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	645.5	1171.8	2158.6	2547.6	2782.2	3659.7	4471.2	5216.4	5866.0	6545.7
IN 1000 TONNES HM CUMUL.	3.5	7.9	15.7	27.3	40.9	56.9	77.2	101.4	129.1	159.9
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO PACIFIC HIGH 11 LWR-OT-REF 200881 CODE SOPKA

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	324.8	674.5	1209.0	1833.3	2153.2	2441.3	3188.7	3896.4	4513.1	5440.1
IN 1000 TONNES HM CUMUL.	1.4	3.9	8.6	17.1	27.1	37.9	52.7	71.3	93.8	119.8
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	324.8	674.5	1209.0	1833.3	2153.2	2441.3	3188.7	3896.4	4513.1	5440.1
IN 1000 TONNES HM CUMUL.	1.4	3.9	8.6	17.1	27.1	37.9	52.7	71.3	93.8	119.8
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

DETAILS ON FISSILE MATERIAL

1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	9.1	25.1	55.2	109.9	181.3	268.4	386.4	535.8	714.7	919.7
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	2.1	4.3	7.7	12.4	16.2	19.9	26.0	31.8	36.8	43.1
IN TONNES CUMULATED	9.1	25.1	55.2	109.9	181.3	268.4	386.4	535.8	714.7	919.7
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	7.1	20.6	46.9	96.3	163.4	245.4	355.6	497.3	669.2	868.1

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	15.0	30.0	53.0	53.0	52.2	48.0	38.0	23.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	33.0	78.8	134.0	197.0	261.0	326.0	360.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	15.0	30.0	53.0	86.0	131.0	182.0	235.0	284.0	326.0	360.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	10.0	15.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	33.0	45.8	55.2	63.0	64.0	65.0	67.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	3.5	6.2	9.9	14.8	20.7	27.0	32.9	38.1	42.5	47.0
IN 1000 TONNES CUMULATED	20.0	44.4	84.8	146.7	235.5	354.7	504.3	681.7	883.1	1107.1
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	3.5	6.2	9.9	14.8	20.7	27.0	32.9	38.1	42.5	47.0
IN 1000 TONNES CUMULATED	20.0	44.4	84.8	146.7	235.5	354.7	504.3	681.7	883.1	1107.1
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	64.3	128.7	227.4	350.5	521.4	727.3	962.2	1200.9	1443.3	1693.3
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	42.5	85.0	150.1	251.6	392.5	562.2	755.9	952.7	1152.5	1358.6
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	2.2	4.1	6.8	10.8	15.8	21.4	26.9	31.9	36.2	40.0
IN 1000 TONNES CUMULATED	11.9	27.7	55.2	99.2	165.7	258.7	379.4	526.3	696.7	887.3
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	645.5	1171.8	1855.3	2539.8	3340.4	4165.4	4862.8	5435.9	5866.0	6545.7
IN 1000 TONNES HM CUMUL.	3.5	7.9	15.3	26.1	40.7	59.4	81.9	107.7	135.9	166.8
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	324.8	674.5	1209.0	1699.1	2308.6	3024.5	3756.0	4381.6	4877.3	5440.1
IN 1000 TONNES HM CUMUL.	1.4	3.9	8.6	15.9	25.9	39.4	56.5	77.1	100.5	126.5
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	324.8	674.5	1209.0	1699.1	2308.6	3024.5	3756.0	4381.6	4877.3	5440.1
IN 1000 TONNES HM CUMUL.	1.4	3.9	8.6	15.9	25.9	39.4	56.5	77.1	100.5	126.5
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	9.1	25.1	55.2	103.4	173.7	271.4	399.4	556.3	738.9	944.4
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	2.1	4.3	7.7	11.5	16.5	22.4	28.5	34.0	38.6	43.1
IN TONNES CUMULATED	9.1	25.1	55.2	103.4	173.7	271.4	399.4	556.3	738.9	944.4
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	7.1	20.6	46.9	90.5	155.0	245.8	366.3	516.2	692.9	892.8
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	15.0	30.0	53.0	26.5	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	59.5	131.0	126.8	116.8	101.8	78.8	45.8
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	55.2	118.2	182.2	247.2	314.2
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	15.0	30.0	53.0	86.0	131.0	182.0	235.0	284.0	326.0	360.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	10.0	15.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	33.0	45.8	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	55.2	63.0	64.0	65.0	67.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	26.5	25.7	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	3.5	6.2	10.7	15.1	19.9	25.1	29.7	33.8	37.0	39.9
IN 1000 TONNES CUMULATED	20.0	44.4	87.5	152.4	239.6	352.3	489.4	648.2	825.0	1017.5
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	3.5	6.2	10.7	15.1	19.9	25.1	29.7	33.8	37.0	39.9
IN 1000 TONNES CUMULATED	20.0	44.4	87.5	152.4	239.6	352.3	489.4	648.2	825.0	1017.5
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	58.5	117.0	206.7	329.8	500.7	671.3	866.0	1063.8	1264.7	1471.8
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	46.5	93.0	164.3	265.8	406.7	557.4	729.3	904.0	1081.5	1264.4
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	2.2	4.1	7.4	11.4	16.3	20.7	24.7	28.3	31.1	33.5
IN 1000 TONNES CUMULATED	11.9	27.7	56.5	103.4	171.9	264.3	377.8	510.4	659.1	820.6
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	645.5	1171.8	2158.6	2547.6	2793.8	3534.9	4189.2	4774.6	5262.2	5777.0
IN 1000 TONNES HM CUMUL.	3.5	7.9	15.7	27.3	40.9	56.6	75.9	98.3	123.3	150.7
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO PACIFIC HIGH 13 LWR-OT-S2 200881 CODE SOPKA

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	324.8	674.5	1209.0	1833.3	2153.2	2332.2	2927.9	3478.0	3934.7	4697.2
IN 1000 TONNES HM CUMUL.	1.4	3.9	8.6	17.1	27.1	37.7	51.5	68.4	88.4	111.1
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	324.8	674.5	1209.0	1833.3	2153.2	2332.2	2927.9	3478.0	3934.7	4697.2
IN 1000 TONNES HM CUMUL.	1.4	3.9	8.6	17.1	27.1	37.7	51.5	68.4	88.4	111.1
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	9.1	25.1	55.2	109.9	181.3	265.7	374.6	507.1	661.3	833.5
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	2.1	4.3	7.7	12.4	16.2	18.9	23.4	27.7	31.1	35.7
IN TONNES CUMULATED	9.1	25.1	55.2	109.9	181.3	265.7	374.6	507.1	661.3	833.5
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	7.1	20.6	46.9	96.3	163.4	243.6	346.4	473.2	622.3	790.5
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO PACIFIC HIGH 14 LWR-OT-S3 200881 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	15.0	30.0	53.0	86.0	131.0	182.0	235.0	284.0	326.0	360.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	15.0	30.0	53.0	86.0	131.0	182.0	235.0	284.0	326.0	360.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	10.0	15.0	23.0	33.0	45.8	55.2	63.0	64.0	65.0	67.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	3.5	6.2	10.3	15.9	22.8	30.1	37.2	43.5	48.9	54.1
IN 1000 TONNES CUMULATED	20.0	44.4	86.0	151.9	248.8	381.2	549.4	751.1	982.0	1239.6
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	3.5	6.2	10.3	15.9	22.8	30.1	37.2	43.5	48.9	54.1
IN 1000 TONNES CUMULATED	20.0	44.4	86.0	151.9	248.8	381.2	549.4	751.1	982.0	1239.6
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	64.3	128.7	227.4	368.9	565.5	802.3	1072.5	1347.1	1625.9	1913.3
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	42.5	85.0	150.1	243.6	373.3	529.6	708.0	889.2	1073.3	1263.1
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	2.2	4.1	6.9	10.9	15.9	21.4	26.8	31.7	35.9	39.7
IN 1000 TONNES CUMULATED	11.9	27.7	55.4	100.0	167.0	260.1	380.6	526.8	695.9	885.0
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	645.5	1171.8	1940.2	3014.1	4333.7	5774.8	7155.1	8422.0	9517.9	10581.6
IN 1000 TONNES HM CUMUL.	3.5	7.9	15.5	27.8	46.0	71.2	103.5	142.4	187.2	237.3
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	324.8	674.5	1209.0	1983.4	3058.8	4349.0	5742.0	7054.7	8248.3	9274.4
IN 1000 TONNES HM CUMUL.	1.4	3.9	8.6	16.6	29.2	47.9	73.3	105.5	144.0	188.1
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	324.8	674.5	1209.0	1983.4	3058.8	4349.0	5742.0	7054.7	8248.3	9274.4
IN 1000 TONNES HM CUMUL.	1.4	3.9	8.6	16.6	29.2	47.9	73.3	105.5	144.0	188.1
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

DETAILS ON FISSILE MATERIAL

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	9.1	25.1	55.2	106.4	187.2	306.1	467.9	672.3	916.7	1196.0
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	2.1	4.3	7.7	12.7	19.6	27.8	36.6	44.9	52.3	58.7
IN TONNES CUMULATED	9.1	25.1	55.2	106.4	187.2	306.1	467.9	672.3	916.7	1196.0
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	7.1	20.6	46.9	92.5	165.4	274.6	425.7	619.7	854.5	1125.7
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Light Water Reactor
Once-Through Strategies
(low projection)

SCENARIO PACIFIC LOW 11 LWR-OT-REF 200881 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	15.0	28.0	51.0	25.5	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	41.5	89.0	111.0	130.0	146.0	159.0	169.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	15.0	28.0	51.0	67.0	89.0	111.0	130.0	146.0	159.0	169.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	10.0	13.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	16.0	22.8	26.2	29.0	29.0	36.0	26.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	25.5	24.7	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	3.3	6.0	9.0	11.0	12.5	15.0	17.1	19.2	20.2	21.6
IN 1000 TONNES CUMULATED	19.5	42.8	80.6	130.7	188.9	257.6	338.1	429.0	527.1	631.8
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	3.3	6.0	9.0	11.0	12.5	15.0	17.1	19.2	20.2	21.6
IN 1000 TONNES CUMULATED	19.5	42.8	80.6	130.7	188.9	257.6	338.1	429.0	527.1	631.8
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	58.5	109.2	198.9	258.6	343.7	441.4	549.5	657.7	792.0	888.9
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	46.5	86.8	158.1	207.3	277.5	358.0	447.1	536.3	647.0	727.0
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	2.1	3.9	6.4	8.4	10.3	12.6	14.5	16.3	17.4	18.6
IN 1000 TONNES CUMULATED	11.7	26.8	52.7	89.9	136.7	194.0	261.9	339.0	423.2	513.1
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	611.5	1119.8	1849.3	1903.9	1724.3	2088.7	2372.5	2699.3	2764.6	3003.2
IN 1000 TONNES HM CUMUL.	3.4	7.6	14.8	24.1	33.4	42.9	54.1	66.7	80.5	94.8
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO PACIFIC LOW 11 LWR-OT-REF 200881 CODE SOPKA

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	324.8	634.5	1159.1	1585.0	1605.9	1514.8	1793.3	2029.2	2222.4	2577.3
IN 1000 TONNES HM CUMUL.	1.4	3.8	8.3	16.0	24.0	31.2	40.1	50.5	62.6	75.1
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	324.8	634.5	1159.1	1585.0	1605.9	1514.8	1793.3	2029.2	2222.4	2577.3
IN 1000 TONNES HM CUMUL.	1.4	3.8	8.3	16.0	24.0	31.2	40.1	50.5	62.6	75.1
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	9.1	24.4	53.2	102.1	157.5	214.9	285.5	367.7	461.7	560.6
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	2.1	4.1	7.4	10.4	11.7	12.4	14.6	16.6	18.1	20.4
IN TONNES CUMULATED	9.1	24.4	53.2	102.1	157.5	214.9	285.5	367.7	461.7	560.6
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	7.1	20.1	45.3	90.1	144.2	200.1	267.5	346.9	438.3	535.9
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO PACIFIC LOW 12 LWR-OT-S1 200881 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	15.0	28.0	51.0	51.0	50.2	46.0	36.0	23.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	16.0	38.8	65.0	94.0	123.0	159.0	169.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	15.0	28.0	51.0	67.0	89.0	111.0	130.0	146.0	159.0	169.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	10.0	13.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	16.0	22.8	26.2	29.0	29.0	36.0	26.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	3.3	6.0	8.2	10.6	13.3	15.8	17.7	19.4	20.2	21.6
IN 1000 TONNES CUMULATED	19.5	42.8	78.1	125.3	185.2	257.9	341.6	434.5	533.3	633.0
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	3.3	6.0	8.2	10.6	13.3	15.8	17.7	19.4	20.2	21.6
IN 1000 TONNES CUMULATED	19.5	42.8	78.1	125.3	185.2	257.9	341.6	434.5	533.3	638.0
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	64.3	120.1	219.8	278.5	362.6	461.3	569.4	677.6	811.9	908.8
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	42.5	79.3	144.4	193.6	263.9	344.4	433.5	522.7	633.4	713.3
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	2.1	3.9	5.9	7.9	10.2	12.5	14.5	16.3	17.4	18.6
IN 1000 TONNES CUMULATED	11.7	26.8	51.4	85.9	131.1	188.0	255.5	332.4	416.5	506.4
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	611.5	1119.8	1557.4	1896.8	2261.0	2572.8	2745.0	2918.9	2764.6	3003.2
IN 1000 TONNES HM CUMUL.	3.4	7.6	14.4	22.9	33.3	45.3	58.6	72.7	87.0	101.4
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	324.8	634.5	1159.1	1455.9	1755.6	2076.5	2339.0	2482.7	2586.6	2577.3
IN 1000 TONNES HM CUMUL.	1.4	3.8	9.3	14.8	22.9	32.6	43.8	56.0	69.0	81.6
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	324.8	634.5	1159.1	1455.9	1755.6	2076.5	2339.0	2482.7	2586.6	2577.3
IN 1000 TONNES HM CUMUL.	1.4	3.8	9.3	14.8	22.9	32.6	43.8	56.0	69.0	81.6
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

DETAILS ON FISSILE MATERIAL

1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	9.1	24.4	53.2	95.8	150.3	217.8	298.0	387.3	485.1	584.4
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	2.1	4.1	7.4	9.6	12.1	14.7	17.0	18.6	19.9	20.4
IN TONNES CUMULATED	9.1	24.4	53.2	95.8	150.3	217.8	298.0	387.3	485.1	584.4
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	7.1	20.1	45.3	84.5	136.1	200.5	277.7	365.0	461.1	559.8

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	15.0	28.0	51.0	25.5	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	41.5	89.0	84.8	74.8	61.8	38.8	22.8
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	26.2	55.2	84.2	120.2	146.2
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	15.0	28.0	51.0	67.0	89.0	111.0	130.0	146.0	159.0	169.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	10.0	13.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	16.0	22.8	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	26.2	29.0	29.0	36.0	26.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	25.5	24.7	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	3.3	6.0	9.0	11.0	12.5	14.5	15.9	17.3	17.5	18.3
IN 1000 TONNES CUMULATED	19.5	42.8	80.6	130.7	189.0	256.6	332.8	416.0	502.8	592.5
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	3.3	6.0	9.0	11.0	12.5	14.5	15.9	17.3	17.5	18.3
IN 1000 TONNES CUMULATED	19.5	42.8	80.6	130.7	189.0	256.6	332.8	416.0	502.8	592.5
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	58.5	109.2	199.0	259.6	343.7	424.7	514.3	603.9	715.2	795.5
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	46.5	86.8	158.1	207.3	277.5	349.0	429.1	507.3	605.6	676.5
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	2.1	3.9	6.4	8.4	10.5	12.2	13.5	14.7	14.9	15.5
IN 1000 TONNES CUMULATED	11.7	26.8	52.7	89.9	136.9	193.7	258.0	328.4	402.3	478.2
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	611.5	1119.8	1849.3	1903.9	1729.8	2029.3	2240.7	2496.4	2469.6	2644.7
IN 1000 TONNES HM CUMUL.	3.4	7.6	14.8	24.1	33.4	42.8	53.4	65.2	77.7	90.4
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	324.8	634.5	1159.1	1585.0	1605.9	1463.0	1671.3	1835.6	1943.4	2229.0
IN 1000 TONNES HM CUMUL.	1.4	3.8	8.3	16.0	24.0	31.1	39.5	49.1	60.1	71.0
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	324.8	634.5	1159.1	1585.0	1605.9	1463.0	1671.3	1835.6	1943.4	2229.0
IN 1000 TONNES HM CUMUL.	1.4	3.8	8.3	16.0	24.0	31.1	39.5	49.1	60.1	71.0
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	9.1	24.4	53.2	102.1	157.5	213.6	279.9	354.3	436.6	519.9
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	2.1	4.1	7.4	10.4	11.7	11.9	13.4	14.6	15.4	16.9
IN TONNES CUMULATED	9.1	24.4	53.2	102.1	157.5	213.6	279.9	354.3	436.6	519.9
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	7.1	20.1	45.3	90.1	144.2	199.2	263.2	335.7	416.3	499.3
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO PACIFIC LOW 14 LWR-OT-S3 200881 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	15.0	28.0	51.0	67.0	89.0	111.0	130.0	146.0	159.0	169.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	15.0	28.0	51.0	67.0	89.0	111.0	130.0	146.0	159.0	169.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	10.0	13.0	23.0	16.0	22.8	26.2	29.0	29.0	36.0	26.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	3.3	6.0	8.4	11.2	14.3	17.3	19.7	22.0	23.2	24.9
IN 1000 TONNES CUMULATED	19.5	42.8	78.6	127.8	191.7	270.8	363.3	467.8	580.8	701.1
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	3.3	6.0	8.4	11.2	14.3	17.3	19.7	22.0	23.2	24.9
IN 1000 TONNES CUMULATED	19.5	42.8	78.6	127.8	191.7	270.8	363.3	467.8	580.8	701.1
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	64.3	120.1	219.8	287.4	385.3	497.7	622.0	746.5	900.9	1012.4
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	42.5	79.3	144.4	189.7	254.4	328.6	410.6	492.8	594.7	668.4
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	2.1	3.9	6.0	7.9	10.3	12.5	14.4	16.2	17.2	18.4
IN 1000 TONNES CUMULATED	11.7	26.8	51.5	86.2	131.7	188.7	256.1	332.6	416.2	505.3
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	611.5	1119.8	1598.6	2128.3	2747.7	3349.6	3834.8	4339.9	4528.7	4884.3
IN 1000 TONNES HM CUMUL.	3.4	7.6	14.5	23.7	35.9	51.1	69.0	89.4	111.7	135.1
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	324.8	634.5	1159.1	1593.7	2124.5	2720.3	3289.0	3745.0	4221.5	4390.5
IN 1000 TONNES HM CUMUL.	1.4	3.8	8.3	15.2	24.5	36.7	52.0	69.6	89.9	111.2
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	324.8	634.5	1159.1	1593.7	2124.5	2720.3	3289.0	3745.0	4221.5	4390.5
IN 1000 TONNES HM CUMUL.	1.4	3.8	8.3	15.2	24.5	36.7	52.0	69.6	89.9	111.2
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

DETAILS ON FISSILE MATERIAL

1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	9.1	24.4	53.2	97.2	156.9	234.7	331.2	443.1	570.5	705.1
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	2.1	4.1	7.4	10.2	13.6	17.3	20.9	23.7	26.6	27.8
IN TONNES CUMULATED	9.1	24.4	53.2	97.2	156.9	234.7	331.2	443.1	570.5	705.1
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	7.1	20.1	45.3	85.4	141.2	214.5	306.6	414.8	538.8	671.5

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

B. Light Water Reactor With
Plutonium/Uranium Recycle Strategy
(low and high projection)

SCENARIO PACIFIC HIGH 21 LWR-PU-REF 200881 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	15.0	30.0	53.0	26.5	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	59.5	131.0	159.3	176.3	210.2	252.2	286.2
LWR-PU-BURNER	0.0	0.0	0.0	0.0	0.0	22.8	58.8	73.8	73.8	73.8
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	15.0	30.0	53.0	86.0	131.0	182.0	235.0	284.0	326.0	360.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	10.0	15.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	33.0	45.8	32.4	27.0	48.9	65.0	67.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-PU-BURNER	0.0	0.0	0.0	0.0	0.0	22.8	36.0	15.1	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	26.5	25.7	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	3.5	6.2	10.7	15.1	17.9	20.6	24.1	29.1	33.8	36.5
IN 1000 TONNES CUMULATED	20.0	44.4	87.5	152.4	234.3	330.4	442.5	575.9	733.1	908.6
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	3.5	6.2	10.7	15.1	17.2	16.6	19.5	24.7	29.0	32.5
IN 1000 TONNES CUMULATED	20.0	44.4	87.5	152.4	230.8	307.2	396.0	507.5	640.6	796.4
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	58.5	117.0	206.7	329.8	500.7	621.7	722.4	904.8	1147.3	1397.2
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	46.5	93.0	164.3	265.8	406.7	506.5	589.4	739.8	939.7	1145.7
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	2.2	4.1	7.4	11.4	15.0	17.6	20.2	24.2	28.5	31.4
IN 1000 TONNES CUMULATED	11.9	27.7	56.5	103.4	169.3	250.7	345.0	455.9	587.7	737.3
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	645.5	1171.8	2158.6	2547.6	2453.1	2793.2	3359.9	4094.0	4743.7	5102.8
IN 1000 TONNES HM CUMUL.	3.5	7.9	15.7	27.3	40.4	53.5	68.6	87.1	109.1	133.9
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	321.0	1047.1	1605.3	1750.0	1750.0	2062.7
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.6	3.9	10.7	19.2	28.0	37.3

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	604.3	2923.9	4144.8	4112.2	3575.8	3644.2
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	3.0	17.6	38.4	58.9	76.8	95.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	284.0	965.9	1522.0	1676.2	1676.2
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.7	3.8	10.1	18.1	26.4
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	324.8	674.5	1209.0	1833.3	2153.2	2595.8	3626.4	4497.7	5140.0	6067.0
IN 1000 TONNES HM CUMUL.	1.4	3.9	8.6	17.1	27.1	38.3	54.5	75.8	101.4	130.4
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	324.8	674.5	1209.0	1833.3	1548.9	-741.2	-1688.6	-1222.2	-112.0	746.6
IN 1000 TONNES HM CUMUL.	1.4	3.9	8.6	17.1	24.1	19.7	11.2	4.9	4.4	6.9
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	129.1	204.3	85.6	-0.0	-0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.3	1.2	1.9	2.1	2.1
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	9.1	25.1	55.2	109.9	181.2	251.8	301.3	319.8	334.5	368.6
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	8.8	35.4	61.4	69.8	69.8	78.3
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	19.3	128.2	372.6	702.3	1051.2	1418.8
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	8.1	34.3	60.9	69.8	69.8	77.6
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	16.5	120.1	361.3	690.4	1039.3	1404.2
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	5.6	30.3	59.2	69.8	69.8	75.2
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	9.5	96.6	324.5	649.9	998.8	1356.9
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	2.8	8.0	11.3	11.9	11.9	14.6
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	2.1	4.3	7.7	12.4	16.2	28.8	51.1	66.3	72.8	79.0
IN TONNES CUMULATED	9.1	25.1	55.2	109.9	181.3	290.5	493.5	791.8	1146.9	1531.7
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	7.1	20.6	46.9	96.3	144.1	131.8	63.4	7.2	0.0	0.0
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO PACIFIC LOW 21 LWR-PU-REF 200881 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	15.0	28.0	51.0	25.5	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	41.5	89.0	97.1	97.5	98.1	111.1	121.1
LWR-PU-BURNER	0.0	0.0	0.0	0.0	0.0	13.9	32.5	47.9	47.9	47.9
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	15.0	28.0	51.0	67.0	89.0	111.0	130.0	146.0	159.0	169.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	10.0	13.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	16.0	22.8	12.3	10.4	13.6	36.0	26.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-PU-BURNER	0.0	0.0	0.0	0.0	0.0	13.9	18.6	15.4	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	25.5	24.7	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	3.3	6.0	9.0	11.0	11.3	11.9	12.0	13.5	14.5	16.0
IN 1000 TONNES CUMULATED	19.5	42.8	80.6	130.7	185.8	243.7	303.6	367.9	437.8	514.2
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	3.3	6.0	9.0	11.0	10.9	10.0	7.9	10.8	12.2	12.1
IN 1000 TONNES CUMULATED	19.5	42.8	80.6	130.7	183.7	232.1	271.4	322.3	380.7	437.6
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	58.5	109.2	198.9	258.6	343.7	389.7	428.3	478.9	613.2	710.2
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	46.5	86.8	158.1	207.3	277.5	315.4	347.2	388.9	499.6	579.6
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	2.1	3.9	6.4	8.4	9.7	10.4	10.5	11.3	12.4	13.6
IN 1000 TONNES CUMULATED	11.7	26.8	52.7	89.9	135.3	185.6	237.8	292.2	351.4	416.2
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	611.5	1119.8	1849.3	1903.9	1523.7	1608.5	1655.3	1970.8	2036.1	2274.7
IN 1000 TONNES HM CUMUL.	3.4	7.6	14.8	24.1	33.1	41.0	49.1	57.8	68.0	78.7
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	195.8	591.6	988.0	1136.0	1136.0	1136.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.3	2.3	6.2	11.7	17.4	23.1

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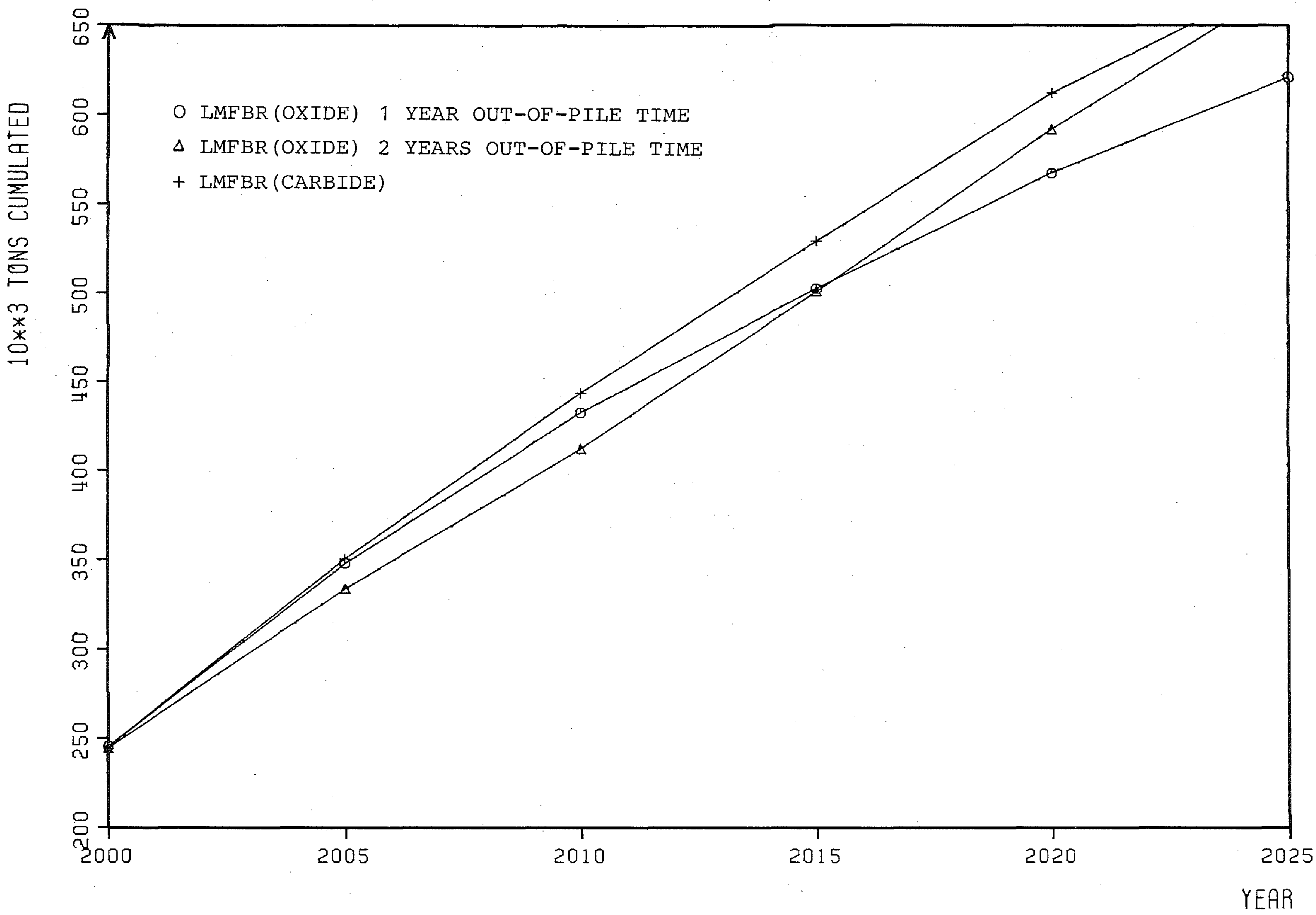
	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	368.6	1637.2	2868.9	2687.0	2294.5	2278.3
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	1.8	10.0	24.4	37.8	49.3	60.7
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	173.2	547.5	930.4	1088.1	1088.1
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.4	2.2	5.9	11.0	16.4
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	324.8	634.5	1159.1	1585.0	1605.9	1609.0	2037.6	2409.9	2629.4	2984.2
IN 1000 TONNES HM CUMUL.	1.4	3.8	8.3	16.0	24.0	31.4	41.2	53.1	67.2	81.8
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	324.8	634.5	1159.1	1585.0	1237.4	-280.1	-1484.5	-1295.1	-753.2	-382.1
IN 1000 TONNES HM CUMUL.	1.4	3.8	8.3	16.0	22.2	20.8	13.9	8.3	5.6	3.3
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	78.7	105.7	87.6	-0.0	-0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.2	0.7	1.1	1.4	1.4
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	9.1	24.4	53.2	102.1	157.5	204.7	236.0	240.1	230.1	218.0
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	5.4	20.3	36.7	45.3	45.3	45.3
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	11.7	75.4	218.2	425.0	651.5	878.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	4.9	19.7	36.2	45.3	45.3	45.3
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	10.1	70.9	211.1	417.3	643.8	870.3
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	3.4	17.7	34.5	45.3	45.3	45.3
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	5.8	57.5	188.5	391.0	617.5	844.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	1.7	4.5	7.1	7.7	7.7	7.7
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	2.1	4.1	7.4	10.4	11.7	17.8	28.7	38.4	41.5	43.7
IN TONNES CUMULATED	9.1	24.4	53.2	102.1	157.5	228.4	347.6	519.4	726.4	942.0
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	7.1	20.1	45.3	90.1	132.4	133.7	96.1	47.0	19.1	5.7
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

C. Uranium/Plutonium Fuelled LMFBR Strategies (high projection)



NATURAL URANIUM DEMAND FOR OECD-PACIFIC
LMFBR STRATEGIES (HIGH CASE)
(100 % U235 CREDIT ASSUMED FROM REPROCESSED SPENT FUEL)

Note related to the previous figure (comparison of uranium requirements in different LMFBR strategy variants):

The priority shown in this figure is a logical and consistent result under the assumptions of the second "Yellow Book", especially to allow reprocessing of thermal spent fuel only as required to support advanced reactors. Thus, compared to an oxide-fuelled LMFBR the smaller amount of the fissile system inventory required for a carbide-fuelled LMFBR together with its higher breeding ratio leads to a smaller amount of fissile plutonium to be recovered from thermal spent fuel and to less possibilities for getting U-235 credit out of the reprocessing procedure. More U-235 is kept in the unreprocessed spent fuel if a more efficient LMFBR is used.

SCENARIO PACIFIC HIGH 31 LMFBR-REF 200881 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	15.0	30.0	53.0	86.0	131.0	173.0	172.0	157.0	134.0	101.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	9.0	63.0	127.0	192.0	259.0
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	15.0	30.0	53.0	86.0	131.0	182.0	235.0	284.0	326.0	360.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	10.0	15.0	23.0	33.0	45.8	46.2	9.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	9.0	54.0	64.0	65.0	67.0
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	3.5	6.2	10.3	15.9	21.9	23.8	22.6	20.1	16.5	11.4
IN 1000 TONNES CUMULATED	20.0	44.4	86.0	151.9	246.5	360.0	475.7	582.4	674.1	743.9
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	3.5	6.2	10.3	15.9	21.7	21.6	16.3	12.8	11.1	8.1
IN 1000 TONNES CUMULATED	20.0	44.4	86.0	151.9	245.3	348.0	432.4	502.4	567.1	620.6
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	64.3	128.7	227.4	368.9	565.5	763.7	802.2	802.2	802.2	802.2
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	42.5	85.0	150.1	243.6	373.3	504.2	529.6	529.6	529.6	529.6
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	2.2	4.1	6.9	10.9	15.5	18.0	17.4	15.7	13.1	9.5
IN 1000 TONNES CUMULATED	11.9	27.7	55.4	100.0	166.0	249.9	338.5	421.3	493.4	549.8
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	645.5	1171.8	1940.2	3014.1	4180.4	4620.9	4426.8	4012.6	3384.5	2487.8
IN 1000 TONNES HM CUMUL.	3.5	7.9	15.5	27.8	45.7	68.2	91.0	112.1	130.6	145.2
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	124.7	1020.9	2795.6	4748.7	6745.9	8953.6
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.2	2.4	11.8	30.6	59.3	98.4

SCENARIO PACIFIC HIGH 31 LMFBR-REF 200881 CODE SOPKA

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	204.3	1866.6	5400.3	6331.4	4650.2	2828.5
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	1.0	10.4	37.4	69.0	92.3	106.4
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	172.0	1296.5	3075.2	4975.9	6925.2
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.4	4.1	15.0	35.2	64.9
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	324.8	674.5	1209.0	1983.4	3058.8	4380.8	5972.8	7559.5	9039.5	10359.9
IN 1000 TONNES HM CUMUL.	1.4	3.9	8.6	16.6	29.2	48.0	74.0	108.0	149.8	198.6
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	324.8	674.5	1209.0	1983.4	2854.5	2302.6	-962.2	-2129.4	-873.3	310.8
IN 1000 TONNES HM CUMUL.	1.4	3.9	8.6	16.6	28.2	37.1	31.8	21.9	18.9	22.4
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	39.7	238.1	282.2	286.6	295.5
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.1	0.8	2.1	3.5	5.0
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	9.1	25.1	55.2	106.4	187.2	306.2	471.6	692.3	973.2	1310.6
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	3.7	35.6	119.7	214.9	312.0	416.5
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	6.5	91.0	476.2	1312.4	2629.0	4446.3
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	3.7	35.6	119.7	214.9	312.0	416.5
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	6.5	91.0	476.2	1312.4	2629.0	4446.3
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	3.0	31.6	115.0	210.1	307.0	410.6
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	4.6	76.0	439.0	1251.3	2543.5	4332.7
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	2.1	4.3	7.7	12.7	19.6	39.0	118.2	223.4	332.1	442.6
IN TONNES CUMULATED	9.1	25.1	55.2	106.4	187.2	334.2	728.1	1582.7	2972.7	4911.0
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	7.9	22.4	50.3	98.0	167.6	218.6	181.1	117.1	97.4	119.5
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	15.0	30.0	53.0	86.0	131.0	173.0	172.0	172.1	181.6	148.6
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	9.0	63.0	111.9	144.4	211.4
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	15.0	30.0	53.0	86.0	131.0	182.0	235.0	284.0	326.0	360.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	10.0	15.0	23.0	33.0	45.8	46.2	9.0	15.1	32.5	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	9.0	54.0	48.9	32.5	67.0
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	3.5	6.2	10.3	15.9	21.9	23.8	24.0	25.3	23.0	21.5
IN 1000 TONNES CUMULATED	20.0	44.4	86.0	151.9	246.5	360.0	479.6	603.1	723.0	834.9
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	3.5	6.2	10.3	15.9	21.5	19.0	15.8	18.3	17.2	15.5
IN 1000 TONNES CUMULATED	20.0	44.4	86.0	151.9	244.4	333.9	412.3	500.8	591.7	673.6
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	64.3	128.7	227.4	368.9	565.5	763.7	802.2	867.1	1006.6	1006.6
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	42.5	85.0	150.1	243.6	373.3	504.2	529.6	572.4	664.5	664.5
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	2.2	4.1	6.9	10.9	15.5	18.0	18.1	18.7	18.0	16.1
IN 1000 TONNES CUMULATED	11.9	27.7	55.4	100.0	166.0	249.9	340.2	432.1	524.2	609.3
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	645.5	1171.8	1940.2	3014.1	4180.4	4620.9	4684.3	4959.7	4623.1	4377.0
IN 1000 TONNES HM CUMUL.	3.5	7.9	15.5	27.8	45.7	68.2	91.4	115.3	139.7	161.7
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	142.7	1128.9	2683.9	3905.0	5436.4	7064.3
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.3	3.0	12.6	29.2	52.2	83.7

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	356.7	4148.6	7103.5	5613.7	4659.6	4684.4
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	1.8	22.5	58.0	86.1	109.4	132.8
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	172.0	1296.5	2786.3	3910.0	5524.6
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.4	4.1	14.3	31.0	54.6
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	324.8	674.5	1209.0	1983.4	3058.8	4380.8	5972.8	7506.0	8857.7	10149.4
IN 1000 TONNES HM CUMUL.	1.4	3.9	8.6	16.6	29.2	48.0	74.0	107.9	149.1	196.9
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	324.8	674.5	1209.0	1983.4	2702.1	20.6	-2665.4	-1109.5	144.9	-355.1
IN 1000 TONNES HM CUMUL.	1.4	3.9	8.6	16.6	27.5	24.9	11.1	5.6	5.8	5.6
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	39.7	238.1	215.6	143.2	295.5
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.1	0.8	1.9	2.8	3.9
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	9.1	25.1	55.2	106.4	187.1	305.3	466.8	681.2	952.8	1272.5
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	5.0	43.6	120.7	183.9	251.4	336.4
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	11.4	164.7	577.3	1302.1	2385.4	3858.3
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	4.6	40.9	118.2	182.3	248.0	334.3
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	9.7	114.4	513.3	1267.8	2336.6	3797.3
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	3.0	31.6	109.8	176.7	236.5	327.1
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	5.5	81.5	436.3	1156.6	2181.3	3596.3
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	1.7	50.3	64.0	34.2	48.9	61.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	2.1	4.3	7.7	12.7	19.6	39.0	118.2	204.4	267.8	368.1
IN TONNES CUMULATED	9.1	25.1	55.2	106.4	187.2	334.2	728.1	1535.5	2717.5	4308.9
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	7.1	20.6	46.9	92.5	154.0	128.3	34.5	0.0	0.0	0.0
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)
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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	15.0	30.0	53.0	86.0	131.0	173.0	172.0	157.0	134.0	101.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	9.0	63.0	127.0	192.0	259.0
TOTAL	15.0	30.0	53.0	86.0	131.0	182.0	235.0	284.0	326.0	360.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD
****

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	10.0	15.0	23.0	33.0	45.8	46.2	9.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	9.0	54.0	64.0	65.0	67.0

RETROFITTING
****

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS
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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	3.5	6.2	10.3	15.9	21.9	23.8	22.6	20.1	16.5	11.4
IN 1000 TONNES CUMULATED	20.0	44.4	86.0	151.9	246.5	360.0	475.7	582.4	674.1	743.9
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	3.5	6.2	10.3	15.9	21.7	22.1	18.0	16.0	14.7	10.5
IN 1000 TONNES CUMULATED	20.0	44.4	86.0	151.9	245.5	350.4	443.4	529.2	612.0	677.4
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	64.3	128.7	227.4	368.9	565.5	763.7	802.2	802.2	802.2	802.2
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	42.5	85.0	150.1	243.6	373.3	504.2	529.6	529.6	529.6	529.6
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	2.2	4.1	6.9	10.9	15.5	18.0	17.4	15.7	13.1	9.5
IN 1000 TONNES CUMULATED	11.9	27.7	55.4	100.0	166.0	249.9	338.5	421.3	493.4	549.8
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	645.5	1171.8	1940.2	3014.1	4180.4	4620.9	4426.8	4012.6	3384.5	2487.8
IN 1000 TONNES HM CUMUL.	3.5	7.9	15.5	27.8	45.7	68.2	91.0	112.1	130.6	145.2
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	131.6	1072.0	2913.8	4938.0	7008.2	9299.4
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.2	2.5	12.3	31.9	61.8	102.3

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	169.2	1481.5	3922.7	3607.8	1532.0	766.3
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.8	8.3	27.9	45.9	53.6	57.4
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	177.8	1340.6	3179.8	5145.2	7160.7
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.4	4.2	15.5	36.4	67.1
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	324.8	674.5	1209.0	1983.4	3058.8	4308.0	6025.0	7673.7	9218.5	10605.5
IN 1000 TONNES HM CUMUL.	1.4	3.9	8.6	16.6	29.2	48.0	74.2	108.6	151.1	201.0
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	324.8	674.5	1209.0	1983.4	2889.6	2687.7	515.4	594.2	2244.8	2372.9
IN 1000 TONNES HM CUMUL.	1.4	3.9	8.6	16.6	28.4	39.2	41.3	45.0	57.6	71.4
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	41.0	246.2	271.8	296.4	305.5
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.1	0.8	2.2	3.6	5.1
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	9.1	25.1	55.2	106.4	187.2	307.7	486.0	744.9	1073.5	1422.2
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	3.1	29.5	99.1	177.9	258.3	344.8
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	5.4	75.3	394.2	1086.5	2176.5	3681.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	3.1	29.5	99.1	177.9	258.3	344.8
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	5.4	75.3	394.2	1086.5	2176.5	3661.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	2.5	26.2	95.2	173.9	254.2	339.9
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	3.9	63.7	364.4	1036.9	2106.7	3588.5
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	2.1	4.3	7.7	12.7	19.6	37.9	110.1	205.7	293.4	373.1
IN TONNES CUMULATED	9.1	25.1	55.2	106.4	187.2	331.4	702.3	1492.5	2741.5	4409.6
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	7.9	22.4	50.3	98.0	168.7	232.0	241.9	265.1	345.3	433.4
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Uranium/Plutonium Fuelled
LMFBR Strategies
(low projection)

SCENARIO PACIFIC LOW 31 LMFBR-REF 200881 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	15.0	28.0	51.0	67.0	89.0	106.0	100.0	87.0	64.0	48.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	5.0	30.0	59.0	95.0	121.0
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	15.0	28.0	51.0	67.0	89.0	111.0	130.0	146.0	159.0	169.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	10.0	13.0	23.0	16.0	22.8	21.2	4.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	5.0	25.0	29.0	36.0	26.0
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	3.3	6.0	8.4	11.2	13.9	14.2	12.9	10.6	7.9	5.4
IN 1000 TONNES CUMULATED	19.5	42.8	78.6	127.8	190.4	260.3	328.1	387.0	433.3	466.4
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	3.3	6.0	8.4	11.2	13.7	13.2	10.0	6.6	5.1	3.3
IN 1000 TONNES CUMULATED	19.5	42.8	78.6	127.8	189.7	254.3	307.6	346.2	378.5	401.1
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	64.3	120.1	218.8	287.4	385.3	476.3	493.3	493.3	493.3	493.3
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	42.5	79.3	144.4	189.7	254.4	314.4	325.7	325.7	325.7	325.7
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	2.1	3.9	6.0	7.9	10.0	10.9	10.0	8.5	6.3	4.5
IN 1000 TONNES CUMULATED	11.7	26.8	51.5	86.2	131.1	183.5	235.9	282.2	319.0	345.9
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	611.5	1119.8	1598.6	2128.3	2662.5	2793.7	2560.8	2192.6	1615.7	1179.2
IN 1000 TONNES HM CUMUL.	3.4	7.6	14.5	23.7	35.7	49.6	63.0	74.9	84.4	91.4
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	69.3	497.9	1310.8	2286.5	3238.7	4121.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.1	1.2	5.7	14.6	28.5	46.8

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	113.5	923.5	2495.4	3076.5	2422.8	1184.2
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.6	5.2	17.7	33.0	45.2	51.1
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	95.5	624.7	1436.2	2422.6	3289.9
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.2	2.0	7.2	16.8	31.1
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	324.8	634.5	1159.1	1593.7	2124.5	2738.0	3399.5	3980.1	4609.6	4902.4
IN 1000 TONNES HM CUMUL.	1.4	3.8	8.3	15.2	24.5	36.8	52.3	70.9	92.7	116.2
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	324.8	634.5	1159.1	1593.7	2011.0	1696.9	169.1	-660.5	-394.5	313.7
IN 1000 TONNES HM CUMUL.	1.4	3.8	8.3	15.2	23.9	31.3	32.2	29.7	29.0	31.6
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	22.0	110.2	127.9	158.8	114.7
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.1	0.4	1.0	1.7	2.4
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	9.1	24.4	53.2	97.2	156.8	234.8	333.1	452.8	597.4	755.7
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	2.1	17.7	56.4	102.2	151.4	192.7
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	3.6	46.9	231.0	625.4	1262.6	2120.9
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	2.1	17.7	56.4	102.2	151.4	192.7
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	3.6	46.9	231.0	625.4	1262.6	2120.9
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	1.7	15.9	54.2	99.6	149.5	190.3
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	2.5	39.7	213.6	595.8	1221.6	2068.5
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	2.1	4.1	7.4	10.2	13.6	23.6	59.9	106.9	163.8	206.6
IN TONNES CUMULATED	9.1	24.4	53.2	97.2	156.9	250.4	460.1	877.6	1555.9	2480.6
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	7.9	21.9	48.4	90.2	143.9	188.2	192.3	178.3	173.6	195.4
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO PACIFIC LOW 32 LMFBR-S1 200881 CODE SOPK

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	15.0	28.0	51.0	67.0	89.0	106.0	100.0	87.0	64.0	48.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	5.0	30.0	59.0	95.0	121.0
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	15.0	28.0	51.0	67.0	89.0	111.0	130.0	146.0	159.0	169.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	10.0	13.0	23.0	16.0	22.8	21.2	4.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	5.0	25.0	29.0	36.0	26.0
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	3.3	6.0	8.4	11.2	13.9	14.2	12.9	10.6	7.9	5.8
IN 1000 TONNES CUMULATED	19.5	42.8	78.6	127.8	190.4	260.3	328.1	387.0	433.3	467.5
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	3.3	6.0	8.4	11.2	13.6	12.6	8.6	5.4	2.3	2.7
IN 1000 TONNES CUMULATED	19.5	42.8	78.6	127.8	189.3	250.8	298.0	330.8	349.0	368.0
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	64.3	120.1	218.8	287.4	385.3	476.3	493.3	493.3	493.3	493.3
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	42.5	79.3	144.4	189.7	254.4	314.4	325.7	325.7	325.7	325.7
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	2.1	3.9	6.0	7.9	10.0	10.9	10.0	8.5	6.3	4.7
IN 1000 TONNES CUMULATED	11.7	26.8	51.5	86.2	131.1	183.5	235.9	282.2	319.0	346.4
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	611.5	1119.8	1598.6	2128.3	2662.5	2793.7	2560.8	2192.6	1615.7	1254.3
IN 1000 TONNES HM CUMUL.	3.4	7.6	14.5	23.7	35.7	49.6	63.0	74.9	84.4	91.5
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	79.3	547.9	1368.8	2358.5	3290.7	4116.7
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.1	1.5	6.3	15.5	29.7	48.2

SCENARIO PACIFIC LOW 32 LMFBR-S1 200881 CODE SUPK

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	198.2	1445.2	3545.8	4506.5	4108.9	2352.1
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	1.0	8.2	25.9	48.5	69.0	80.8
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	95.5	624.7	1436.2	2422.6	3289.9
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.2	2.0	7.2	16.8	31.1
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	324.8	634.5	1159.1	1593.7	2124.5	2738.0	3399.5	3980.1	4609.6	4902.4
IN 1000 TONNES HM CUMUL.	1.4	3.8	8.3	15.2	24.5	36.8	52.3	70.9	92.7	110.2
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	324.8	634.5	1159.1	1593.7	1926.4	1175.2	-881.3	-2090.4	-2080.7	-854.2
IN 1000 TONNES HM CUMUL.	1.4	3.8	8.3	15.2	23.5	28.3	23.9	14.2	5.1	1.9
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	22.0	110.2	127.9	158.8	114.7
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.1	0.4	1.0	1.7	2.4
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	9.1	24.4	53.2	97.2	156.8	234.4	330.8	447.3	588.0	747.0
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	2.8	21.4	60.7	107.6	155.3	195.1
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	6.3	64.1	268.8	680.5	1347.6	2222.6
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	2.6	20.2	59.2	105.8	154.0	193.7
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	5.4	58.2	255.9	666.9	1318.2	2186.9
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	1.7	15.9	54.2	99.6	149.5	188.8
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	3.0	42.2	216.5	599.4	1224.4	2069.7
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.9	5.9	13.0	21.6	28.8	35.8
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	2.1	4.1	7.4	10.2	13.6	23.6	59.9	106.9	163.6	208.6
IN TONNES CUMULATED	9.1	24.4	53.2	97.2	156.9	250.4	460.1	877.6	1555.9	2486.1
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	7.1	20.1	45.3	85.4	134.9	160.8	130.7	68.8	16.6	0.0
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO PACIFIC LOW 33 LMFBR-S2 200881 CODE SOPK

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	15.0	28.0	51.0	67.0	89.0	106.0	100.0	87.0	64.0	48.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	5.0	30.0	59.0	95.0	121.0
TOTAL	15.0	28.0	51.0	67.0	89.0	111.0	130.0	146.0	159.0	169.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	10.0	13.0	23.0	16.0	22.8	21.2	4.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	5.0	25.0	29.0	36.0	26.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	3.3	6.0	8.4	11.2	13.9	14.2	12.9	10.6	7.9	5.4
IN 1000 TONNES CUMULATED	19.5	42.8	76.6	127.8	190.4	260.3	328.1	387.0	433.3	466.4
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	3.3	6.0	6.4	11.2	13.7	13.4	10.8	8.7	5.5	4.8
IN 1000 TONNES CUMULATED	19.5	42.8	78.6	127.8	189.9	255.5	312.9	361.9	396.3	426.5
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	64.3	120.1	218.8	287.4	385.3	476.3	493.3	493.3	493.3	493.3
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	42.5	79.3	144.4	189.7	254.4	314.4	325.7	325.7	325.7	325.7
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	2.1	3.9	6.0	7.9	10.0	10.9	10.0	6.5	6.3	4.5
IN 1000 TONNES CUMULATED	11.7	26.8	51.5	86.2	131.1	183.5	235.9	282.2	319.0	345.9
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	611.5	1119.8	1598.6	2128.3	2662.5	2793.7	2560.8	2192.6	1615.7	1179.2
IN 1000 TONNES HM CUMUL.	3.4	7.6	14.5	23.7	35.7	49.6	63.0	74.9	84.4	91.4
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	73.1	522.4	1365.9	2378.8	3363.1	4279.2
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.1	1.3	5.9	15.2	29.7	48.7

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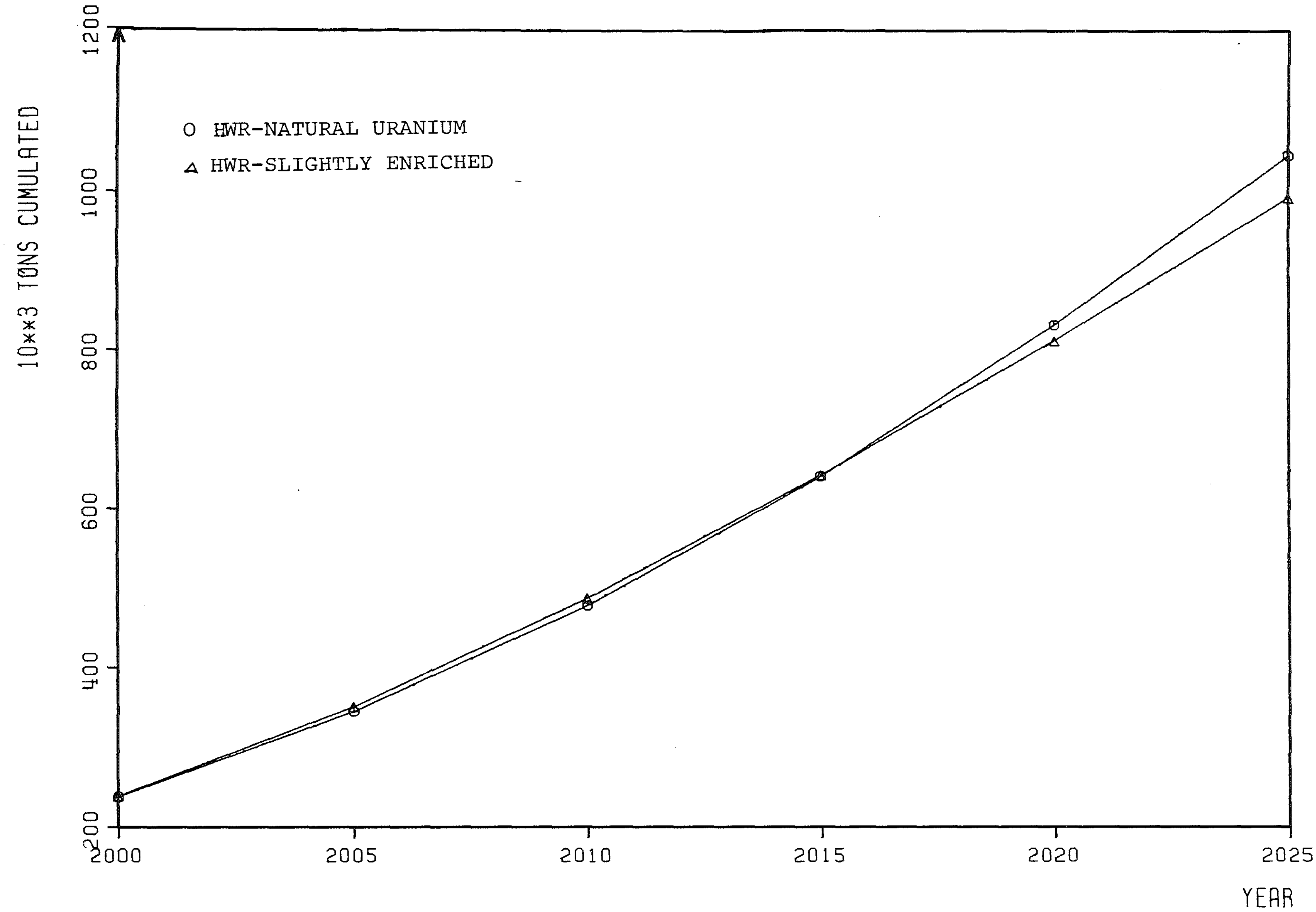
	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	94.0	729.0	1797.0	1706.0	1288.6	503.4
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.5	4.1	13.1	21.6	28.1	30.6
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	98.8	646.0	1485.0	2505.0	3401.8
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.2	2.1	7.4	17.4	32.2
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	324.8	634.5	1159.1	1593.7	2124.5	2742.0	3424.5	4033.3	4697.4	5018.2
IN 1000 TONNES HM CUMUL.	1.4	3.8	8.3	15.2	24.5	36.8	52.4	71.1	93.3	117.4
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	324.8	634.5	1159.1	1593.7	2030.5	1891.4	867.5	710.1	739.7	994.5
IN 1000 TONNES HM CUMUL.	1.4	3.8	8.3	15.2	24.0	32.4	36.8	41.1	46.1	52.1
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	22.8	114.0	132.2	164.2	118.6
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.1	0.4	1.0	1.8	2.5
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	9.1	24.4	53.2	97.2	156.9	235.7	340.3	477.9	637.9	790.0
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	1.7	14.7	46.7	84.6	125.4	159.6
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	3.0	38.8	191.2	517.8	1045.3	1755.8
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	1.7	14.7	46.7	84.6	125.4	159.6
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	3.0	38.8	191.2	517.8	1045.3	1755.8
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	1.4	13.1	44.9	82.4	123.8	157.5
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	2.2	33.2	177.3	493.7	1011.9	1713.3
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	2.1	4.1	7.4	10.2	13.6	23.0	56.1	98.6	141.2	172.7
IN TONNES CUMULATED	9.1	24.4	53.2	97.2	156.9	248.8	447.3	834.5	1435.7	2219.2
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	7.9	21.9	48.4	90.2	144.5	195.0	221.5	248.6	285.3	324.9
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

D. Heavy Water Reactor
Once-Through Strategies
(high projection)



NATURAL URANIUM DEMAND FØR ØECD-PACIFIC
HWR - STRATEGIES (HIGH CASE)
(100 % U235 CREDIT ASSUMED FRØM RFPRØCESSED SPENT FUEL)

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	15.0	30.0	53.0	26.5	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	59.5	131.0	173.0	172.0	157.0	134.0	101.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	9.0	63.0	127.0	192.0	259.0
HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	15.0	30.0	53.0	86.0	131.0	182.0	235.0	284.0	326.0	360.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	10.0	15.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	33.0	45.8	46.2	9.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	9.0	54.0	64.0	65.0	67.0
HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	26.5	25.7	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	3.5	6.2	10.7	15.1	19.4	23.7	29.6	35.4	40.4	44.6
IN 1000 TONNES CUMULATED	20.0	44.4	87.5	152.4	238.2	345.2	478.3	640.8	830.3	1042.9
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	3.5	6.2	10.7	15.1	19.4	23.7	29.6	35.4	40.4	44.6
IN 1000 TONNES CUMULATED	20.0	44.4	87.5	152.4	238.2	345.2	478.3	640.8	830.3	1042.9
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	58.5	117.0	206.7	329.8	500.7	706.4	940.2	1177.7	1418.8	1667.4
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	46.5	93.0	164.3	265.8	406.7	582.1	810.1	1047.5	1288.7	1537.2
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	1361.2	8235.4	10158.2	10795.8	11592.3	14040.4
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	1.7	17.0	61.1	113.2	168.8	230.4
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	2.2	4.1	7.4	11.4	15.5	18.3	17.7	16.0	13.3	9.6
IN 1000 TONNES CUMULATED	11.9	27.7	56.5	103.4	170.7	255.3	345.2	429.3	502.6	560.0
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	645.5	1171.8	2158.6	2547.6	2794.9	4709.7	11378.1	19049.5	26735.1	34682.2
IN 1000 TONNES HM CUMUL.	3.5	7.9	15.7	27.3	41.1	60.5	100.9	176.9	291.4	445.0
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO PACIFIC HIGH 41 HWR-OT-REF 200881 CODE SOPKA

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	324.8	674.5	1209.0	1833.3	2153.2	3271.2	9137.1	16580.0	24178.5	32287.2
IN 1000 TONNES HM CUMUL.	1.4	3.9	8.6	17.1	27.1	40.0	71.7	136.9	240.3	382.5
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	324.8	674.5	1209.0	1833.3	2153.2	3271.2	9137.1	16580.0	24178.5	32287.2
IN 1000 TONNES HM CUMUL.	1.4	3.9	8.6	17.1	27.1	40.0	71.7	136.9	240.3	382.5
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	9.1	25.1	55.2	109.9	181.3	272.6	425.0	668.3	1009.4	1447.0
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	2.1	4.3	7.7	12.4	16.2	21.6	38.1	57.3	76.2	96.7
IN TONNES CUMULATED	9.1	25.1	55.2	109.9	181.3	272.6	425.0	668.3	1009.4	1447.0
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	7.1	20.6	46.9	96.3	163.4	248.5	384.6	604.4	921.2	1335.1
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO PACIFIC HIGH 42 HWR-OT-S1 200881 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	15.0	30.0	53.0	26.5	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	59.5	131.0	173.0	172.0	157.0	134.0	101.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	9.0	63.0	127.0	192.0	259.0
TOTAL	15.0	30.0	53.0	86.0	131.0	182.0	235.0	284.0	326.0	360.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	10.0	15.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	33.0	45.8	46.2	9.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	9.0	54.0	64.0	65.0	67.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	26.5	25.7	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	3.5	6.2	10.7	15.1	19.7	25.2	29.3	32.5	34.9	36.9
IN 1000 TONNES CUMULATED	20.0	44.4	87.5	152.4	239.0	351.1	487.2	641.8	810.4	990.1
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	3.5	6.2	10.7	15.1	19.7	25.2	29.3	32.5	34.9	36.9
IN 1000 TONNES CUMULATED	20.0	44.4	87.5	152.4	239.0	351.1	487.2	641.8	810.4	990.1
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	58.5	117.0	206.7	329.8	500.7	697.1	875.2	1046.6	1220.7	1400.1
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	46.5	93.0	164.3	265.8	406.7	572.8	745.1	916.5	1090.5	1270.0
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	1361.2	8235.4	10158.2	10795.8	11592.3	14040.4
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	1.7	17.0	61.1	113.2	168.8	230.4
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	2.2	4.1	7.4	11.4	15.7	19.6	20.8	21.0	20.3	18.8
IN 1000 TONNES CUMULATED	11.9	27.7	56.5	103.4	171.1	259.1	360.1	464.6	567.7	665.4
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	645.5	1171.8	2158.6	2547.6	2856.1	4343.7	6679.2	9141.4	11543.0	14116.9
IN 1000 TONNES HM CUMUL.	3.5	7.9	15.7	27.3	41.0	58.8	86.3	125.9	177.6	241.5
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	324.8	674.5	1209.0	1833.3	2153.2	2615.4	4475.0	6826.0	9180.5	11891.4
IN 1000 TONNES HM CUMUL.	1.4	3.9	8.6	17.1	27.1	38.4	56.7	86.0	127.4	181.2
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	324.8	674.5	1209.0	1833.3	2153.2	2615.4	4475.0	6826.0	9180.5	11891.4
IN 1000 TONNES HM CUMUL.	1.4	3.9	8.6	17.1	27.1	38.4	56.7	86.0	127.4	181.2
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

DETAILS ON FISSILE MATERIAL

1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	9.1	25.1	55.2	109.9	181.3	268.6	389.1	546.3	740.5	968.5
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	2.1	4.3	7.7	12.4	16.2	20.0	26.9	34.1	40.7	48.5
IN TONNES CUMULATED	9.1	25.1	55.2	109.9	181.3	268.6	389.1	546.3	740.5	968.5
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	7.1	20.6	46.9	96.3	163.4	245.6	357.2	505.0	690.2	910.2

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Heavy Water Reactor
Once-Through Strategies
(low projection)

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	15.0	28.0	51.0	25.5	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	41.5	89.0	106.0	100.0	87.0	64.0	48.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	5.0	30.0	59.0	95.0	121.0
HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	15.0	28.0	51.0	67.0	89.0	111.0	130.0	146.0	159.0	169.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	10.0	13.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	16.0	22.8	21.2	4.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	5.0	25.0	29.0	36.0	26.0
HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	25.5	24.7	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	3.3	6.0	9.0	11.0	12.2	13.9	15.9	17.8	19.5	20.7
IN 1000 TONNES CUMULATED	19.5	42.8	80.6	130.7	188.2	253.2	327.6	411.9	505.0	605.6
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	3.3	6.0	9.0	11.0	12.2	13.9	15.9	17.8	19.5	20.7
IN 1000 TONNES CUMULATED	19.5	42.8	80.6	130.7	188.2	253.2	327.6	411.9	505.0	605.6
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	58.5	109.2	198.9	258.6	343.7	441.3	548.9	656.5	790.1	886.5
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	46.5	86.8	158.1	207.3	277.5	361.2	466.2	573.8	707.3	803.8
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	756.2	3819.0	4614.0	5893.0	4654.2	5883.3
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.9	8.5	28.8	53.7	82.0	107.1
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	2.1	3.9	6.4	8.4	10.1	11.1	10.2	8.6	6.4	4.5
IN 1000 TONNES CUMULATED	11.7	26.8	52.7	89.9	136.2	189.1	242.3	289.3	326.8	354.1
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	611.5	1119.8	1849.3	1903.9	1731.4	2665.0	5659.4	9133.9	13080.4	16141.8
IN 1000 TONNES HM CUMUL.	3.4	7.6	14.8	24.1	33.5	44.8	65.7	102.7	158.2	231.3
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	324.8	634.5	1159.1	1585.0	1605.9	1975.9	4636.9	7932.9	11893.5	15201.6
IN 1000 TONNES HM CUMUL.	1.4	3.8	8.3	16.0	24.0	32.4	49.5	81.8	132.8	201.1
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	324.8	634.5	1159.1	1585.0	1605.9	1975.9	4636.9	7932.9	11893.5	15201.6
IN 1000 TONNES HM CUMUL.	1.4	3.8	8.3	16.0	24.0	32.4	49.5	81.8	132.8	201.1
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	9.1	24.4	53.2	102.1	157.5	217.2	304.6	430.8	603.0	813.4
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	2.1	4.1	7.4	10.4	11.7	13.3	20.4	28.4	37.5	45.6
IN TONNES CUMULATED	9.1	24.4	53.2	102.1	157.5	217.2	304.6	430.8	603.0	813.4
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	7.1	20.1	45.3	90.1	144.2	201.8	281.9	398.2	559.0	759.8
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	15.0	28.0	51.0	25.5	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	41.5	89.0	106.0	100.0	87.0	64.0	48.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	5.0	30.0	59.0	95.0	121.0
TOTAL	15.0	28.0	51.0	67.0	89.0	111.0	130.0	146.0	159.0	169.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	10.0	13.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	16.0	22.8	21.2	4.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	5.0	25.0	29.0	36.0	26.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	25.5	24.7	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	3.3	6.0	9.0	11.0	12.4	14.5	15.7	16.6	16.5	17.0
IN 1000 TONNES CUMULATED	19.5	42.8	80.6	130.7	188.7	256.0	331.6	412.6	495.4	579.2
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	3.3	6.0	9.0	11.0	12.4	14.5	15.7	16.6	16.5	17.0
IN 1000 TONNES CUMULATED	19.5	42.8	80.6	130.7	188.7	256.0	331.6	412.6	495.4	579.2
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	58.5	109.2	198.9	258.6	343.7	436.2	518.0	595.6	692.0	761.7
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	46.5	86.8	158.1	207.3	277.5	356.1	435.2	512.9	609.3	678.9
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	756.2	3819.0	4614.0	5893.0	4654.2	5883.3
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.9	8.5	28.8	53.7	82.0	107.1
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	2.1	3.9	6.4	8.4	10.2	11.7	11.7	11.1	9.7	8.8
IN 1000 TONNES CUMULATED	11.7	26.8	52.7	89.9	136.4	191.1	249.4	306.2	358.1	404.1
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	611.5	1119.8	1849.3	1903.9	1765.4	2427.7	3411.8	4570.4	5514.8	6503.6
IN 1000 TONNES HM CUMUL.	3.4	7.6	14.8	24.1	33.5	43.9	58.5	78.3	103.7	133.7
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	324.8	634.5	1159.1	1585.0	1605.9	1611.5	2411.2	3395.7	4503.0	5631.0
IN 1000 TONNES HM CUMUL.	1.4	3.8	8.3	16.0	24.0	31.4	42.1	57.5	78.7	104.5
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	324.8	634.5	1159.1	1585.0	1605.9	1611.5	2411.2	3395.7	4503.0	5631.0
IN 1000 TONNES HM CUMUL.	1.4	3.8	8.3	16.0	24.0	31.4	42.1	57.5	78.7	104.5
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

DETAILS ON FISSILE MATERIAL

1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	9.1	24.4	53.2	102.1	157.5	215.0	286.9	372.7	474.1	584.0
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	2.1	4.1	7.4	10.4	11.7	12.4	15.1	17.6	20.0	23.0
IN TONNES CUMULATED	9.1	24.4	53.2	102.1	157.5	215.0	286.9	372.7	474.1	584.0
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	7.1	20.1	45.3	90.1	144.2	200.2	268.3	350.7	448.3	556.1

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

E. Thorium Strategies
(high projection)

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	15.0	30.0	53.0	26.5	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	59.5	131.0	173.0	172.0	157.0	134.0	101.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	9.0	63.0	127.0	192.0	259.0
TOTAL	15.0	30.0	53.0	86.0	131.0	182.0	235.0	284.0	326.0	360.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	10.0	15.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	33.0	45.8	46.2	9.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	9.0	54.0	64.0	65.0	67.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	26.5	25.7	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	3.5	6.2	10.7	15.1	20.1	27.1	29.0	29.2	28.5	27.7
IN 1000 TONNES CUMULATED	20.0	44.4	87.5	152.4	240.0	357.5	497.4	642.7	786.8	927.4
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	3.5	6.2	10.7	15.1	20.1	27.1	29.0	29.2	28.5	27.7
IN 1000 TONNES CUMULATED	20.0	44.4	87.5	152.4	240.0	357.5	497.4	642.7	786.8	927.4
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	58.5	117.0	206.7	329.8	500.7	686.7	802.6	900.2	999.3	1101.5
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	46.5	93.0	164.3	265.8	406.7	559.1	648.8	722.4	797.1	874.2
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.1	0.5	0.8	0.8	0.9	1.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.2	1.7	4.9	8.9	13.1	17.8
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	2.2	4.1	7.4	11.4	16.8	26.2	29.4	30.6	31.1	32.2
IN 1000 TONNES CUMULATED	11.9	27.7	56.5	103.4	172.9	276.0	413.8	563.6	717.8	874.9
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	645.5	1171.8	2158.6	2547.6	2652.0	2741.9	2588.0	2345.8	1978.6	1454.4
IN 1000 TONNES HM CUMUL.	3.5	7.9	15.7	27.3	40.7	54.7	68.1	80.4	91.2	99.8
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	81.7	557.9	1055.8	1547.4	2055.7	2677.2
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.1	1.3	5.3	11.8	20.8	32.5
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	33.6	262.4	665.8	1103.4	1551.6
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.1	0.8	3.1	7.6	14.2
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	324.8	674.5	1209.0	1833.3	2153.2	2387.8	2800.9	3047.9	3183.1	3615.3
IN 1000 TONNES HM CUMUL.	1.4	3.9	8.6	17.1	27.1	37.8	51.4	67.0	84.0	102.1
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	324.8	674.5	1209.0	1833.3	2153.2	2339.0	2447.0	2273.6	1969.5	1950.1
IN 1000 TONNES HM CUMUL.	1.4	3.9	8.6	17.1	27.1	37.7	50.3	63.1	75.1	86.0
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	15.3	91.5	108.5	110.2	113.6
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.8	1.4	1.9
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	9.1	25.1	55.2	109.9	181.3	266.3	367.1	468.2	562.1	644.0
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	2.1	4.3	7.7	12.4	16.2	19.1	20.0	18.6	16.1	14.6
IN TONNES CUMULATED	9.1	25.1	55.2	109.9	181.3	266.3	367.1	468.2	562.1	644.0
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	7.1	20.6	46.9	96.3	163.4	244.0	341.5	443.5	539.7	625.1
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	15.0	30.0	53.0	26.5	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	59.5	131.0	172.0	170.0	167.9	209.9	238.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	10.0	65.0	116.1	116.1	122.0
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	15.0	30.0	53.0	86.0	131.0	182.0	235.0	284.0	326.0	360.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	10.0	15.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	33.0	45.8	45.2	8.0	12.9	65.0	61.1
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	10.0	55.0	51.1	0.0	5.9
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	26.5	25.7	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	3.5	6.2	10.7	15.1	19.0	20.5	20.4	24.1	28.3	31.4
IN 1000 TONNES CUMULATED	20.0	44.4	87.5	152.4	237.1	335.1	437.6	550.0	681.0	830.2
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	3.5	6.2	10.7	15.1	18.8	15.7	14.7	20.1	24.7	27.0
IN 1000 TONNES CUMULATED	20.0	44.4	87.5	152.4	236.1	310.2	383.8	476.2	589.3	716.9
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	58.5	117.0	206.7	329.8	500.7	669.3	699.1	747.1	989.6	1217.4
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	46.5	93.0	164.3	265.8	406.7	545.7	570.2	609.8	809.7	997.5
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.2	1.1	1.6	0.7	0.2	0.5
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.4	3.1	10.0	16.3	18.6	20.2
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	1512.4	8394.2	8225.3	882.5	1778.9	3249.3
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	1.9	18.0	60.2	92.9	98.4	109.1
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	2.2	4.1	7.4	11.4	15.5	18.1	18.0	19.8	23.8	26.6
IN 1000 TONNES CUMULATED	11.9	27.7	56.5	103.4	170.6	254.7	345.1	439.5	548.5	674.6
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	645.5	1171.8	2158.6	2547.6	2637.5	2712.2	2743.8	3451.3	4015.3	4468.5
IN 1000 TONNES HM CUMUL.	3.5	7.9	15.7	27.3	40.7	54.5	68.1	82.9	101.6	122.8
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	198.8	1370.7	2817.0	3216.5	3334.4	3685.9
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.3	3.1	13.6	30.0	46.2	63.5
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	180.8	3506.2	5029.3	3536.4	2867.6	3370.7
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.9	18.4	43.6	61.3	75.6	92.5
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	151.2	1113.7	2606.6	3275.7	3365.4
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.4	3.5	12.8	27.5	44.1
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	324.8	674.5	1209.0	1833.3	2153.2	2521.1	3767.8	5214.5	6138.8	7113.1
IN 1000 TONNES HM CUMUL.	1.4	3.9	8.6	17.1	27.1	38.1	54.5	77.9	107.8	142.0
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	324.8	674.5	1209.0	1833.3	1972.4	-1178.6	-2607.9	-1144.8	-4.6	351.9
IN 1000 TONNES HM CUMUL.	1.4	3.9	8.6	17.1	26.2	19.2	6.6	1.9	2.2	2.8
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	42.3	232.7	216.3	0.0	25.1
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.1	0.8	1.9	2.5	2.5
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	9.1	25.1	55.2	109.9	181.2	263.7	347.8	404.5	444.7	496.2
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	5.5	32.7	42.8	25.9	29.2	35.7
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	5.8	114.1	316.1	470.0	602.9	757.5
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	5.5	32.7	42.8	25.9	29.2	35.7
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	5.8	65.0	256.9	470.0	602.9	757.5
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	5.4	32.1	42.2	25.9	29.1	35.5
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	5.3	62.0	251.0	463.5	596.1	750.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	-0.0	49.2	59.2	-0.0	-0.0	-0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	2.1	4.3	7.7	12.4	16.2	19.3	21.7	23.5	28.0	33.9
IN TONNES CUMULATED	9.1	25.1	55.2	109.9	181.3	266.7	372.3	490.0	626.2	786.1
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	7.9	22.4	50.3	102.1	165.1	138.6	38.4	0.0	0.0	1.2
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	2.2	16.3	38.3	48.1	49.4
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	5.5	52.0	188.5	404.3	647.9
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	2.2	16.3	38.3	48.1	49.4
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	5.5	52.0	188.5	404.3	647.9
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	2.0	15.2	37.2	48.1	49.3
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	5.0	48.1	179.1	392.3	635.6
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	2.9	19.9	41.6	48.3	50.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	7.1	63.9	217.6	442.5	688.2

Thorium Strategies
(low projection)

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	15.0	28.0	51.0	25.5	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	41.5	89.0	106.0	100.0	87.0	64.0	48.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	5.0	30.0	59.0	95.0	121.0
TOTAL	15.0	28.0	51.0	67.0	89.0	111.0	130.0	146.0	159.0	169.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	10.0	13.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	16.0	22.8	21.2	4.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	5.0	25.0	29.0	36.0	26.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	25.5	24.7	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	3.3	6.0	9.0	11.0	12.6	15.4	15.5	15.3	13.0	12.5
IN 1000 TONNES CUMULATED	19.5	42.8	80.6	130.7	189.2	259.0	336.1	413.3	484.0	547.9
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	3.3	6.0	9.0	11.0	12.6	15.4	15.5	15.3	13.0	12.5
IN 1000 TONNES CUMULATED	19.5	42.8	80.6	130.7	189.2	259.0	336.1	413.3	484.0	547.9
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	58.5	109.2	198.9	258.6	343.7	430.4	483.4	527.6	582.5	622.1
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	46.5	86.8	158.1	207.3	277.5	348.4	389.4	422.7	464.1	494.0
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.4	0.4	0.4
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.1	0.8	2.3	4.2	6.3	8.3
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	2.1	3.9	6.4	8.4	10.8	14.7	15.5	16.2	14.2	14.5
IN 1000 TONNES CUMULATED	11.7	26.8	52.7	89.9	137.5	199.4	274.7	353.5	430.5	501.5
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	611.5	1119.8	1849.3	1903.9	1652.0	1651.2	1497.1	1281.8	944.6	689.4
IN 1000 TONNES HM CUMUL.	3.4	7.6	14.8	24.1	33.3	41.8	49.7	56.7	62.2	66.3
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	45.4	264.6	489.4	771.5	952.2	1210.2
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.1	0.7	2.5	5.6	10.0	15.4
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	18.6	127.1	311.5	534.3	741.1
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.5	3.6	6.8
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	324.8	634.5	1159.1	1585.0	1605.9	1485.1	1607.6	1633.9	1570.1	1716.9
IN 1000 TONNES HM CUMUL.	1.4	3.8	8.3	16.0	24.0	31.1	39.5	48.4	57.9	66.6
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	324.8	634.5	1159.1	1585.0	1605.9	1457.9	1438.1	1273.2	974.8	931.7
IN 1000 TONNES HM CUMUL.	1.4	3.8	8.3	16.0	24.0	31.1	38.9	46.5	53.6	58.9
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	8.5	42.4	49.2	61.0	44.1
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.7	0.9
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	9.1	24.4	53.2	102.1	157.5	213.7	276.0	335.4	388.6	428.4
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	2.1	4.1	7.4	10.4	11.7	11.9	11.7	10.4	8.0	7.0
IN TONNES CUMULATED	9.1	24.4	53.2	102.1	157.5	213.7	276.0	335.4	388.6	428.4
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	7.1	20.1	45.3	90.1	144.2	199.3	260.5	321.1	376.4	419.4
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	15.0	28.0	51.0	25.5	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	41.5	89.0	106.0	100.0	87.0	79.5	89.5
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	5.0	30.0	59.0	79.5	79.5
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	15.0	28.0	51.0	67.0	89.0	111.0	130.0	146.0	159.0	169.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	10.0	13.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	16.0	22.8	21.2	4.0	0.0	15.5	26.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	5.0	25.0	29.0	20.5	0.0
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	25.5	24.7	0.0	0.0	0.0	0.0	0.0

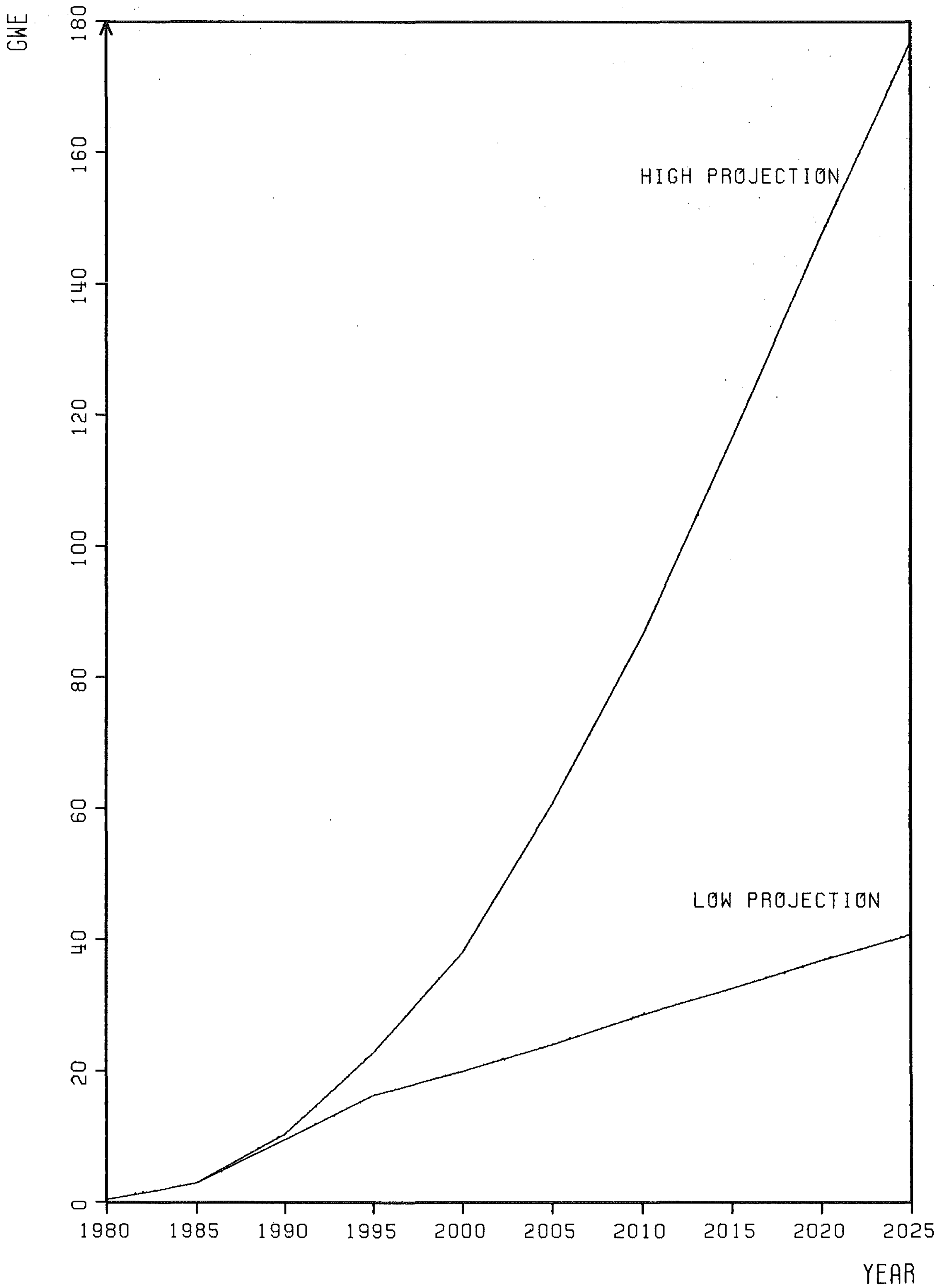
FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	3.3	6.0	9.0	11.0	12.0	12.4	11.2	10.5	10.8	12.2
IN 1000 TONNES CUMULATED	19.5	42.8	80.6	130.7	187.8	248.5	307.5	362.2	415.7	473.5
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	3.3	6.0	9.0	11.0	11.9	11.4	6.9	7.6	8.1	8.0
IN 1000 TONNES CUMULATED	19.5	42.8	80.6	130.7	187.2	243.0	280.2	320.3	360.2	396.7
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	58.5	109.2	198.9	258.6	343.7	422.8	437.6	437.6	495.3	592.2
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	46.5	86.8	158.1	207.3	277.5	342.7	354.9	354.9	402.4	482.4
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.1	0.5	0.8	0.8	0.3	0.1
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.2	1.5	4.8	8.9	11.8	12.8
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	756.2	3819.0	4614.0	3556.0	604.6	604.6
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.9	8.5	28.8	50.9	65.2	68.3
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	2.1	3.9	6.4	8.4	10.1	11.1	10.2	9.3	9.1	10.2
IN 1000 TONNES CUMULATED	11.7	26.8	52.7	89.9	136.2	189.1	242.3	290.9	336.7	385.0
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	611.5	1119.8	1849.3	1903.9	1652.0	1651.2	1497.1	1505.3	1555.5	1794.1
IN 1000 TONNES HM CUMUL.	3.4	7.6	14.8	24.1	33.3	41.8	49.7	57.0	64.5	72.8
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	99.4	635.6	1407.7	2042.9	2203.5	2203.5
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.1	1.5	6.5	15.3	26.4	37.5
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

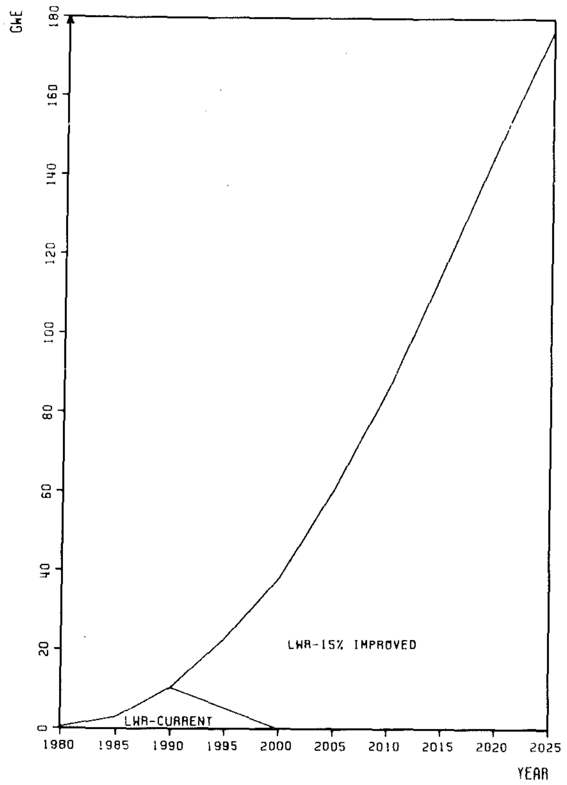
SCENARIO PACIFIC LOW 52 HWR-TH-PU 080981 CODE SOPKA

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	90.4	875.3	2938.3	2922.2	2727.2	2134.4
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.5	4.8	19.5	34.1	47.8	58.4
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	75.6	519.1	1284.8	1975.1	2244.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.2	1.7	6.2	14.3	24.9
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	324.8	634.5	1159.1	1585.0	1605.9	1554.7	2062.9	2680.7	3212.5	3690.9
IN 1000 TONNES HM CUMUL.	1.4	3.8	8.3	16.0	24.0	31.3	41.0	53.7	69.9	87.6
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	324.8	634.5	1159.1	1585.0	1515.5	582.7	-1500.2	-1649.0	-1576.8	-687.5
IN 1000 TONNES HM CUMUL.	1.4	3.8	8.3	16.0	23.6	26.2	19.4	12.4	6.3	2.6
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	21.2	105.8	122.7	86.9	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.9	1.5	1.7
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	9.1	24.4	53.2	102.1	157.5	212.7	267.4	304.2	319.8	320.2
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	2.8	15.0	22.8	24.5	17.7	17.7
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	2.9	31.0	122.1	247.2	369.5	458.2
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	2.8	15.0	22.8	24.5	17.7	17.7
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	2.9	31.0	122.1	247.2	369.5	458.2
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	2.7	14.7	22.4	24.3	17.7	17.7
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	2.7	29.7	119.1	243.0	365.1	453.7
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	-0.0	-0.0	0.0	-0.0	-0.0	-0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	2.1	4.1	7.4	10.4	11.7	12.0	12.6	12.4	12.3	14.3
IN TONNES CUMULATED	9.1	24.4	53.2	102.1	157.5	214.0	278.9	345.5	414.6	483.8
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	7.9	21.9	48.4	95.2	147.0	174.2	146.4	87.4	33.5	13.3
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	1.1	7.6	18.9	29.0	32.9
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	2.8	24.6	90.8	210.4	365.2
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	1.1	7.6	18.9	29.0	32.9
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	2.8	24.6	90.8	210.4	365.2
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	1.0	7.1	18.3	28.6	32.9
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	2.5	22.8	86.2	203.2	356.9
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	1.4	9.2	20.8	30.4	33.1
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	3.6	30.2	105.1	233.0	391.8

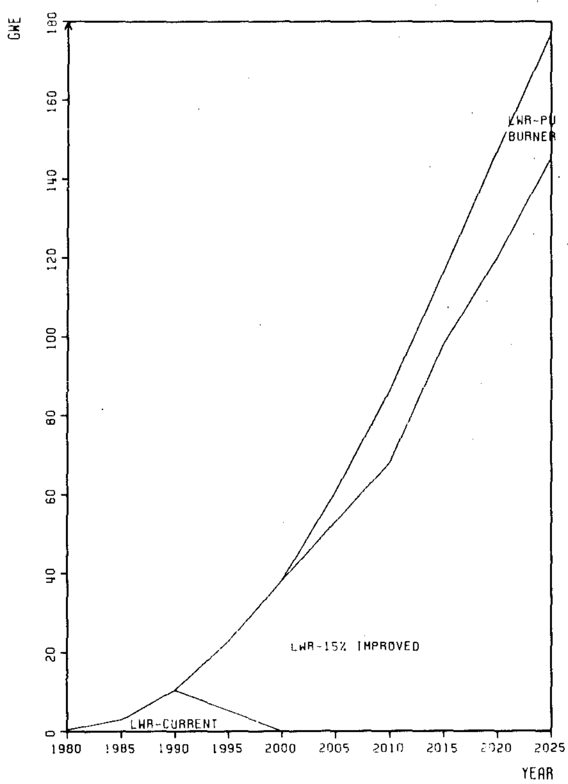
IV.3.4 Latin America



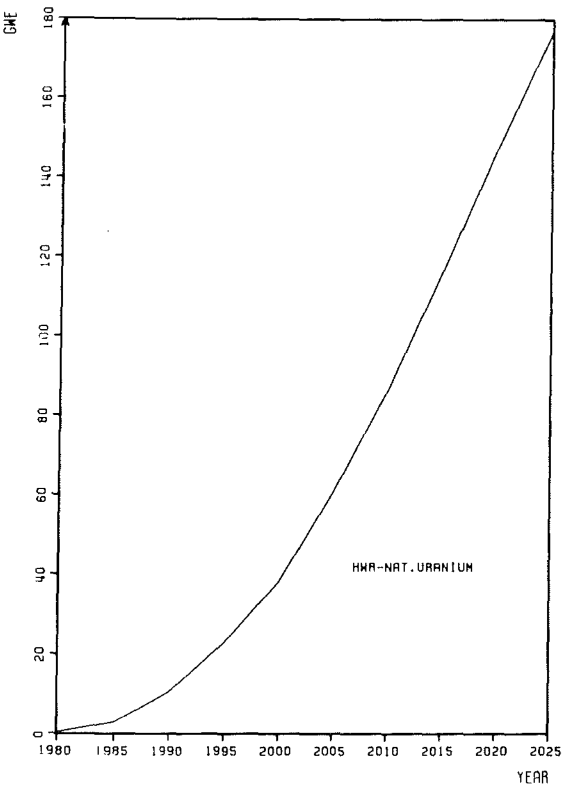
INSTALLED NUCLEAR CAPACITY FØR LATIN AMERICA



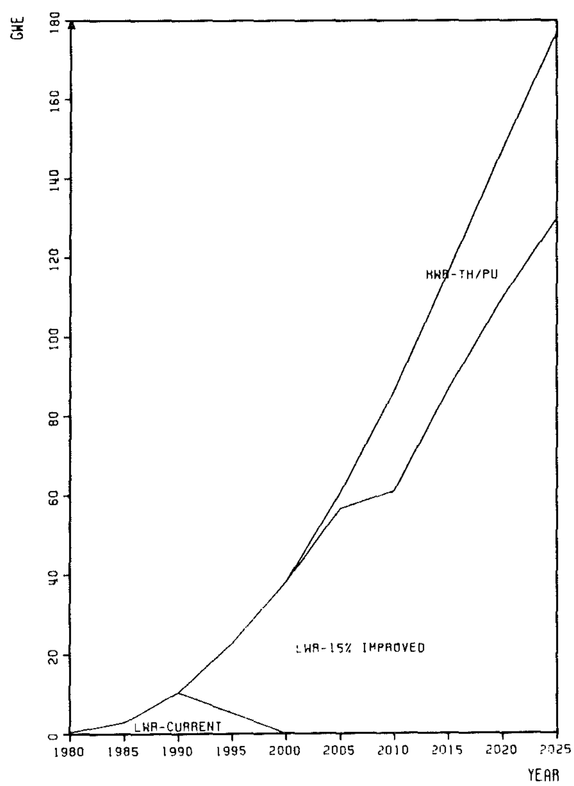
LATIN AMERICA LWR-OT-REF STRATEGY (HIGH CASE)



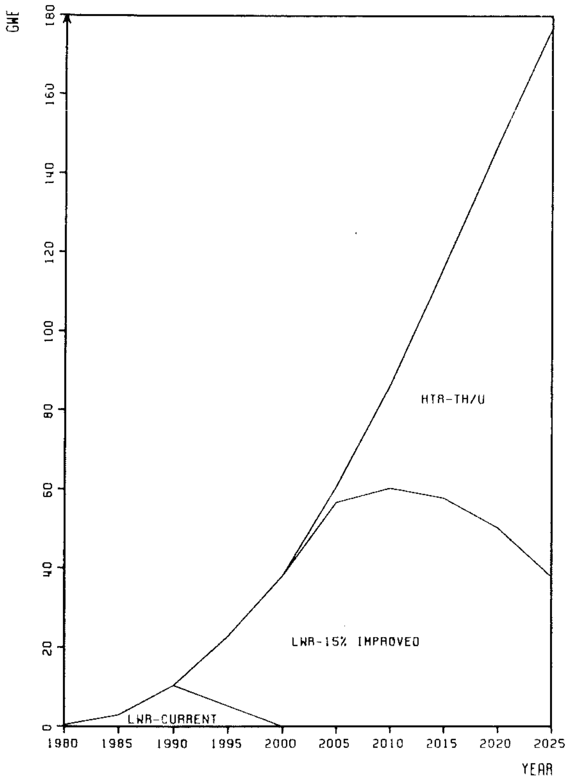
LATIN AMERICA LWR-PU-REF STRATEGY (HIGH CASE)



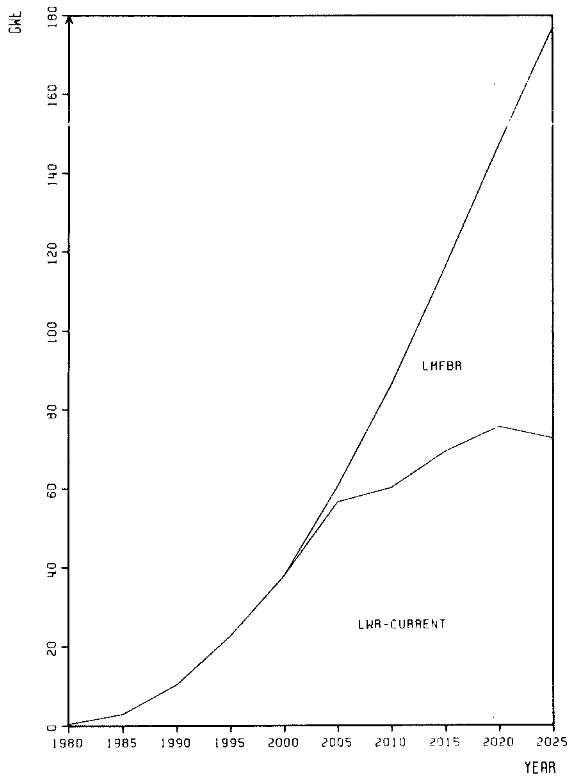
LATIN AMERICA HWR-OT-REF STRATEGY (HIGH CASE)



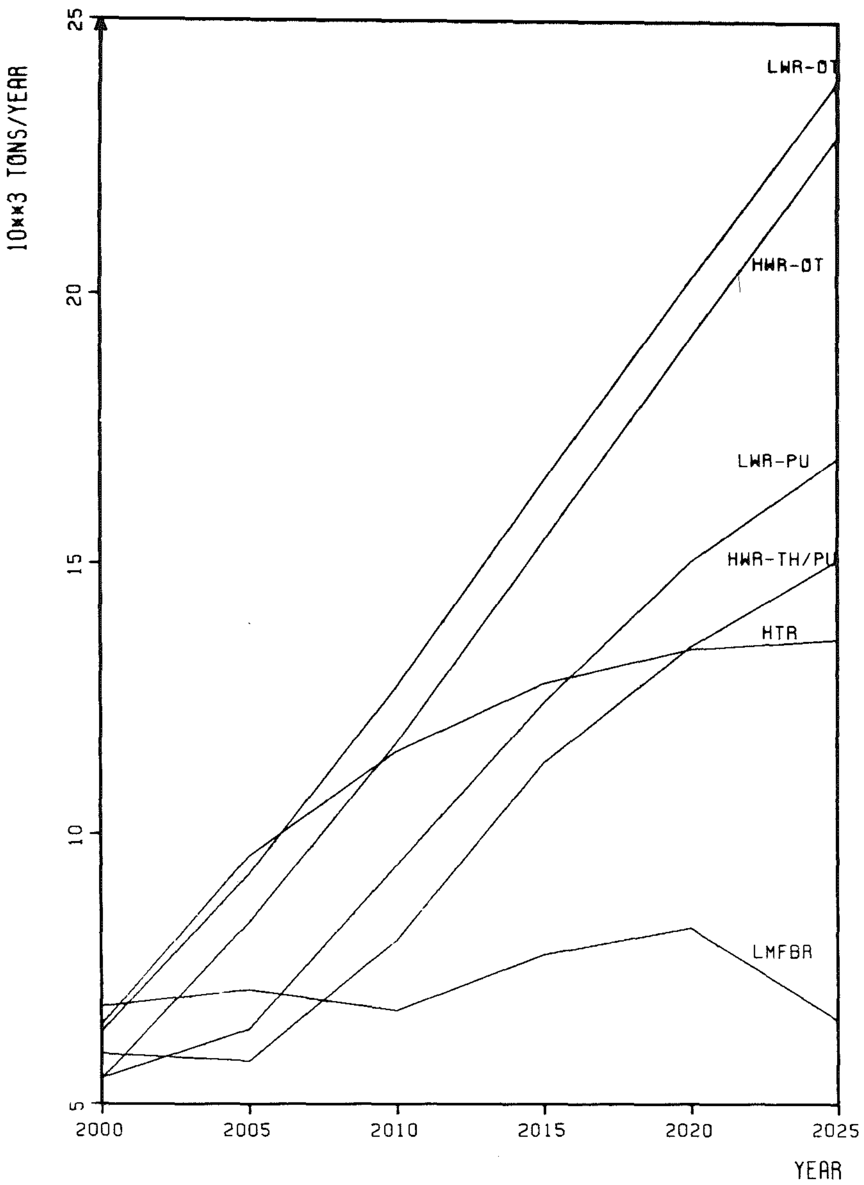
LATIN AMERICA
HWR-TH/PU-REF STRATEGY (HIGH CASE)



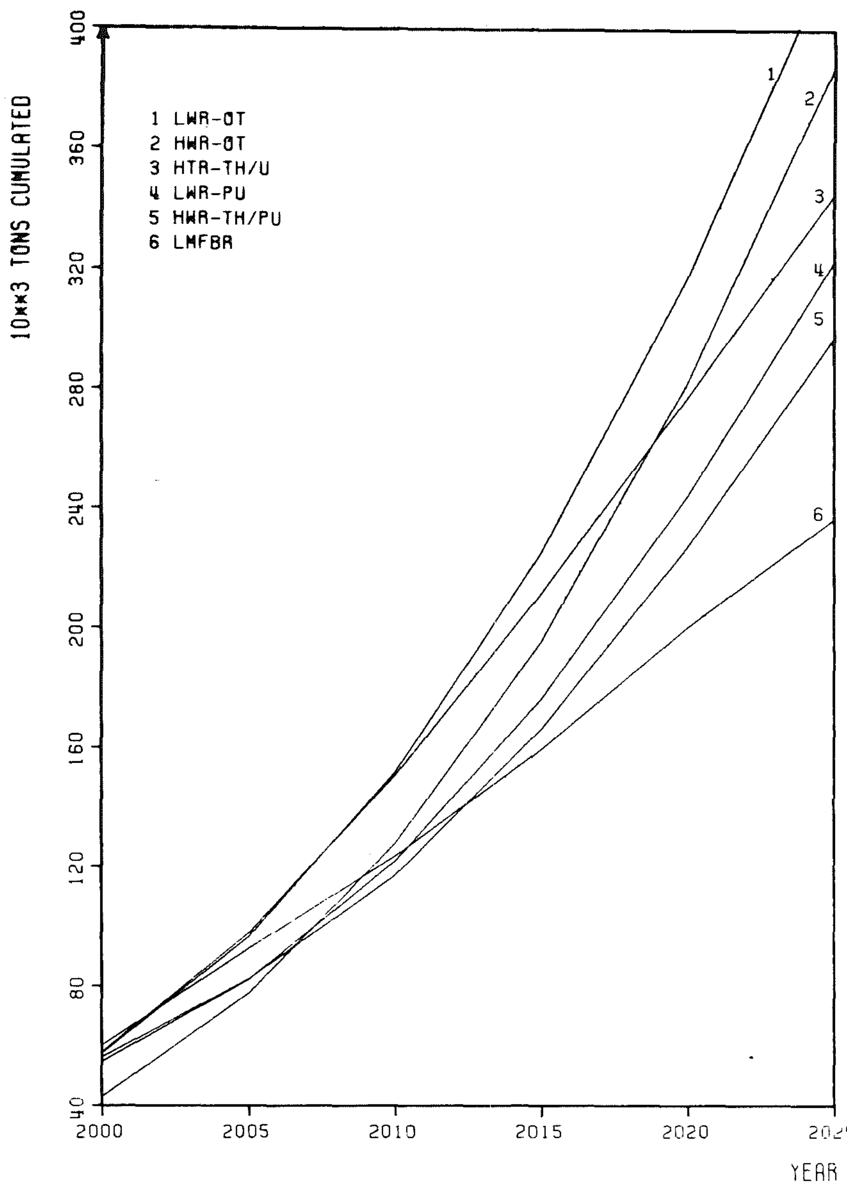
LATIN AMERICA
HTR-TH/U-REF STRATEGY (HIGH CASE)



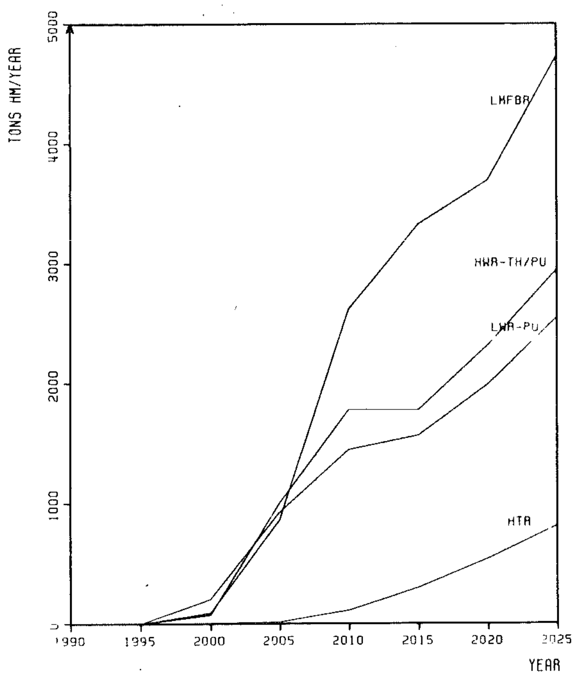
LATIN AMERICA LMFBR-REF STRATEGY (HIGH CASE)



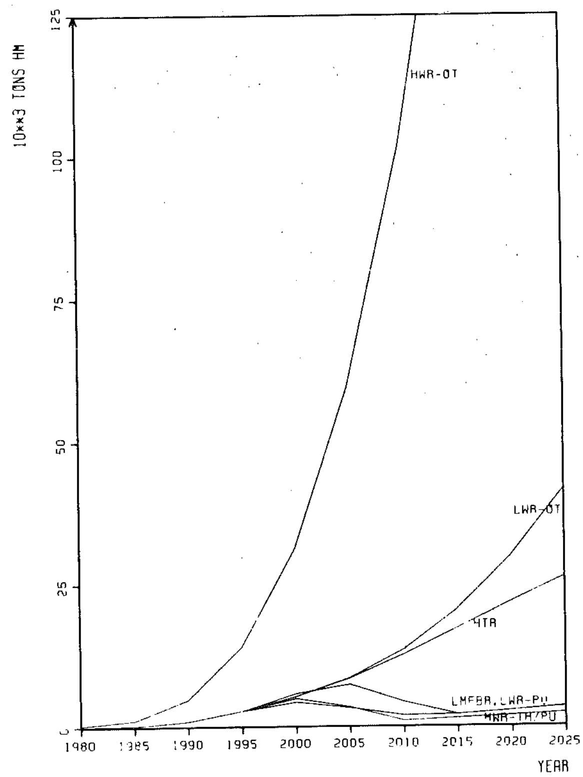
NATURAL URANIUM DEMAND FOR LATIN AMERICA
REFERENCE STRATEGIES (HIGH CASE)
(100 % U235 CREDIT ASSUMED FROM REPROCESSED SPENT FUEL)



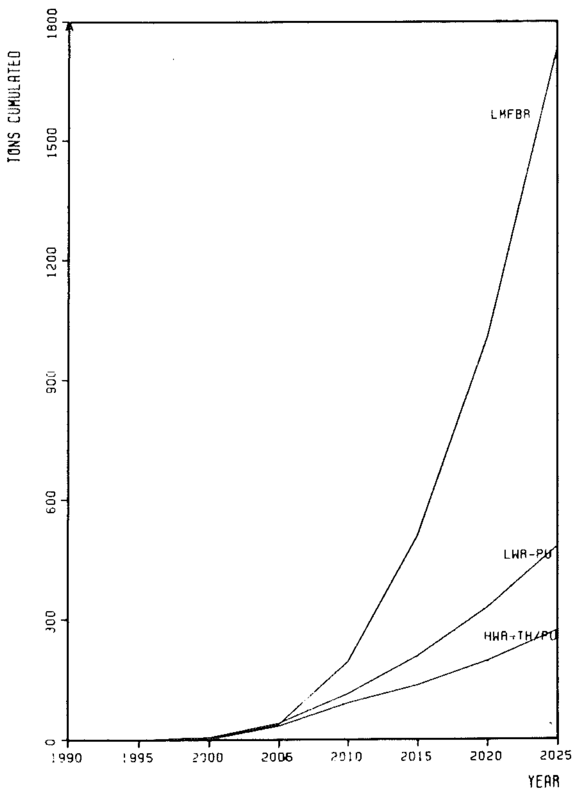
NATURAL URANIUM DEMAND FOR LATIN AMERICA
REF STRATEGY STRATEGIES (HIGH CASE)
(100 % U235 CREDIT ASSUMED FROM REPROCESSED SPENT FUEL)



ANNUAL REPROCESSING REQUIREMENTS FOR
LATIN AMERICA REFERENCE STRATEGIES (HIGH CASE)



AMOUNT OF UNREPROCESSED SPENT FUEL
IN LATIN AMERICA REFERENCE STRATEGIES (HIGH CASE)



FISSILE PLUTONIUM REPROCESSED
IN LATIN AMERICA REFERENCE STRATEGIES (HIGH CASE)

A. Light Water Reactor
Once-Through Reference Strategy
(high and low projection)

SCENARIO LAT.AMERICA HIGH 11 LWR-OT-REF 10098 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.4	2.9	10.4	5.2	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	17.6	38.0	60.6	86.3	116.3	147.2	176.9
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.4	2.9	10.4	22.8	38.0	60.6	86.3	116.3	147.2	176.9

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	2.5	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	12.4	15.2	22.9	25.7	32.5	38.4	42.1
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	5.2	5.2	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	0.3	1.1	2.6	4.2	6.3	9.2	12.7	16.5	20.3	23.9
IN 1000 TONNES CUMULATED	1.2	4.8	14.2	31.2	57.5	96.6	151.6	224.9	316.9	427.3
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	0.3	1.1	2.6	4.2	6.3	9.2	12.7	16.5	20.3	23.9
IN 1000 TONNES CUMULATED	1.2	4.8	14.2	31.2	57.5	96.6	151.6	224.9	316.9	427.3
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	1.4	11.3	40.5	86.8	143.5	229.1	325.0	446.4	589.5	746.6
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	1.1	9.0	32.2	70.4	117.1	187.6	266.8	366.8	484.8	614.3
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.2	0.6	1.7	3.1	4.9	7.4	10.3	13.6	16.9	20.1
IN 1000 TONNES CUMULATED	0.6	2.6	8.4	20.4	40.5	71.3	115.7	175.5	251.8	344.1
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	52.7	202.8	508.9	681.9	908.7	1293.3	1777.8	2309.7	2824.7	3311.5
IN 1000 TONNES HM CUMUL.	0.2	0.7	2.4	5.3	9.3	14.7	22.3	32.5	45.3	60.6
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO LAT.AMERICA HIGH 11 LWR-OT-REF 10098 CODE SOPKA

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	9.1	59.8	221.9	426.8	579.0	796.9	1153.3	1567.4	2003.9	2587.8
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.9	2.7	5.2	8.5	13.4	20.4	29.8	41.7
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	9.1	59.8	221.9	426.8	579.0	796.9	1153.3	1567.4	2003.9	2587.8
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.9	2.7	5.2	8.5	13.4	20.4	29.8	41.7
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

DETAILS ON FISSILE MATERIAL

1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	0.4	1.5	6.0	17.8	36.4	63.0	102.8	159.1	234.4	328.8
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.1	0.4	1.4	3.0	4.4	6.5	9.4	12.8	16.4	20.6
IN TONNES CUMULATED	0.4	1.5	6.0	17.8	36.4	63.0	102.8	159.1	234.4	328.8
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	0.3	1.1	4.6	14.7	31.6	55.8	92.2	144.3	214.9	304.6

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO LAT.AMERICA LOW 11 LWR-OT-REF 10098 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.4	2.9	9.6	4.8	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	11.5	20.0	24.0	28.6	32.5	36.8	40.7
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.4	2.9	9.6	16.3	20.0	24.0	28.6	32.5	36.8	40.7

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	2.5	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	6.7	3.7	4.3	4.6	6.4	11.0	10.6
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	4.8	4.8	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	0.3	1.0	2.0	2.5	2.7	3.2	3.8	4.4	4.9	5.3
IN 1000 TONNES CUMULATED	1.2	4.6	12.2	23.3	36.1	50.9	68.4	89.1	112.5	137.9
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	0.3	1.0	2.0	2.5	2.7	3.2	3.8	4.4	4.9	5.3
IN 1000 TONNES CUMULATED	1.2	4.6	12.2	23.3	36.1	50.9	68.4	89.1	112.5	137.9
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	1.4	11.3	37.4	62.4	76.2	92.4	109.7	133.7	174.6	214.2
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	1.1	9.0	29.7	50.4	61.7	75.1	89.3	109.1	142.9	175.5
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.2	0.6	1.4	2.0	2.3	2.7	3.2	3.7	4.2	4.5
IN 1000 TONNES CUMULATED	0.6	2.5	7.4	15.7	26.3	38.7	53.5	70.8	90.4	112.1
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	52.7	189.2	401.1	407.8	366.1	431.8	523.3	641.0	701.1	722.0
IN 1000 TONNES HM CUMUL.	0.2	0.7	2.1	4.2	6.2	8.2	10.5	13.4	16.8	20.4
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	9.1	59.8	205.9	340.0	349.5	329.7	393.3	450.7	510.7	653.0
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.9	2.4	4.1	5.7	7.5	9.8	12.6	15.7
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	9.1	59.8	205.9	340.0	349.5	329.7	393.3	450.7	510.7	653.0
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.9	2.4	4.1	5.7	7.5	9.8	12.6	15.7
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

DETAILS ON FISSILE MATERIAL

1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	0.4	1.5	5.7	15.6	27.8	40.4	55.1	73.2	94.9	119.0
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.1	0.4	1.3	2.3	2.6	2.7	3.2	3.7	4.2	5.1
IN TONNES CUMULATED	0.4	1.5	5.7	15.6	27.8	40.4	55.1	73.2	94.9	119.0
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	0.3	1.1	4.5	13.1	24.8	37.2	51.3	68.6	89.5	113.0

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

B. Light Water Reactor With
Plutonium/Uranium Recycle Strategy
(low and high projection)

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.4	2.9	9.6	4.8	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	11.5	20.0	21.0	21.4	22.4	26.7	30.6
LWR-PU-BURNER	0.0	0.0	0.0	0.0	0.0	3.0	7.1	10.1	10.1	10.1
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.4	2.9	9.6	16.3	20.0	24.0	28.6	32.5	36.8	40.7

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	2.5	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	6.7	3.7	1.3	0.5	3.5	11.0	10.6
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-PU-BURNER	0.0	0.0	0.0	0.0	0.0	3.0	4.1	2.9	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	4.8	4.8	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	0.3	1.0	2.0	2.5	2.5	2.5	2.7	3.3	3.7	4.0
IN 1000 TONNES CUMULATED	1.2	4.6	12.2	23.3	35.5	47.9	61.0	76.0	93.4	112.7
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	0.3	1.0	2.0	2.5	2.4	2.1	2.2	2.6	2.8	3.3
IN 1000 TONNES CUMULATED	1.2	4.6	12.2	23.3	35.0	45.3	55.9	67.7	80.5	96.2
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	1.4	11.3	37.4	62.4	76.2	81.2	83.0	96.0	137.0	176.6
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	1.1	9.0	29.7	50.4	61.7	65.8	67.3	78.1	111.8	144.5
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.2	0.6	1.4	2.0	2.1	2.2	2.3	2.7	3.1	3.4
IN 1000 TONNES CUMULATED	0.6	2.5	7.4	15.7	26.0	36.9	48.2	60.7	75.1	91.4
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	52.7	189.2	401.1	407.8	322.7	326.2	372.0	487.7	547.7	559.8
IN 1000 TONNES HM CUMUL.	0.2	0.7	2.1	4.2	6.1	7.8	9.5	11.5	14.1	16.9
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	42.3	129.7	210.9	239.1	239.1	247.8
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.1	0.5	1.4	2.5	3.7	4.9

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	79.7	354.1	506.7	574.0	559.8	479.4
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.4	2.2	4.7	7.6	10.4	12.8
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	37.5	119.9	199.0	229.1	229.1
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.1	0.5	1.3	2.4	3.5
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	9.1	59.8	205.9	340.0	349.5	350.0	447.0	531.4	596.4	738.7
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.9	2.4	4.1	5.8	7.7	10.4	13.6	17.2
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	9.1	59.8	205.9	340.0	269.8	-58.6	-203.2	-258.3	-192.5	30.3
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.9	2.4	3.7	3.4	2.4	1.3	0.6	0.6
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	17.0	23.6	16.7	-0.0	-0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.3
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	0.4	1.5	5.7	15.6	27.8	38.2	44.3	45.5	45.2	46.0
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	1.2	4.4	7.9	9.5	9.5	9.8
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	2.5	16.4	47.4	91.3	139.0	187.2
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	1.1	4.3	7.8	9.5	9.5	9.8
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	2.2	15.4	45.9	89.7	137.4	185.5
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.7	3.9	7.5	9.5	9.5	9.7
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	1.2	12.5	41.0	84.1	131.8	179.8
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.4	1.0	1.5	1.6	1.6	1.7
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.1	0.4	1.3	2.3	2.6	3.9	6.3	8.3	9.1	10.0
IN TONNES CUMULATED	0.4	1.5	5.7	15.6	27.8	43.3	68.7	106.0	151.5	200.2
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	0.3	1.1	4.5	13.1	22.3	22.7	14.1	4.4	0.3	0.0
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO LAT.AMERICA HIGH 21 LWR-PU-REF 10981 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.4	2.9	10.4	5.2	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	17.6	38.0	53.0	68.0	98.0	120.1	145.4
LWR-PU-BURNER	0.0	0.0	0.0	0.0	0.0	7.6	18.3	18.3	27.1	31.5
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.4	2.9	10.4	22.8	38.0	60.6	86.3	116.3	147.2	176.9

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	2.5	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	12.4	15.2	15.4	15.0	32.5	29.7	37.7
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-PU-BURNER	0.0	0.0	0.0	0.0	0.0	7.6	10.8	0.0	8.7	4.4

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	5.2	5.2	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	0.3	1.1	2.6	4.2	5.7	7.5	10.6	13.7	16.7	19.2
IN 1000 TONNES CUMULATED	1.2	4.8	14.2	31.2	55.8	88.8	134.3	194.7	270.8	360.5
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	0.3	1.1	2.6	4.2	5.5	6.4	9.4	12.4	15.0	17.0
IN 1000 TONNES CUMULATED	1.2	4.8	14.2	31.2	54.7	82.2	121.9	176.3	244.0	322.5
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	1.4	11.3	40.5	86.8	143.5	200.8	256.6	378.0	488.6	629.2
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	1.1	9.0	32.2	70.4	117.1	164.3	210.4	310.4	401.6	517.5
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.2	0.6	1.7	3.1	4.6	6.2	8.4	11.3	13.9	16.3
IN 1000 TONNES CUMULATED	0.6	2.6	8.4	20.4	39.7	66.7	103.1	152.4	215.5	290.9
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	52.7	202.8	508.9	681.9	799.2	1022.4	1499.0	1904.9	2349.5	2663.0
IN 1000 TONNES HM CUMUL.	0.2	0.7	2.4	5.3	9.1	13.7	19.7	28.3	38.8	51.4
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	106.9	331.4	434.7	557.6	703.6	911.9
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.2	1.3	3.3	5.7	8.9	12.8

SCENARIO LAT.AMERICA HIGH 21 LWR-PU-REF 10981 CODE SOPKA

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	201.2	830.9	1143.3	1150.9	1465.3	1880.7
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	1.0	5.2	10.9	16.6	24.0	33.4
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	94.6	306.4	416.4	525.1	669.4
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.2	1.2	3.0	5.4	8.4
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	9.1	59.8	221.9	426.8	579.0	848.3	1290.7	1723.1	2218.8	2847.6
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.9	2.7	5.2	8.7	14.0	21.7	32.0	45.1
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	9.1	59.8	221.9	426.8	377.8	-120.2	-220.0	155.8	179.0	272.4
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.9	2.7	4.2	3.2	1.5	1.5	2.0	2.5
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	43.0	61.1	-0.0	49.4	25.1
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.5	0.6	0.8
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	0.4	1.5	6.0	17.8	36.4	57.5	75.4	94.0	120.5	153.0
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	2.9	11.3	17.3	20.7	27.3	34.3
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	6.4	41.6	114.6	208.6	329.1	482.1
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	2.7	11.0	17.3	20.4	27.1	33.9
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	5.5	39.1	111.6	204.6	324.2	475.6
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	1.9	9.8	17.3	19.5	26.6	32.6
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	3.2	31.6	101.6	191.9	308.0	454.7
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.9	2.5	2.9	4.0	4.9	6.5
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.1	0.4	1.4	3.0	4.4	9.5	17.3	21.7	28.7	35.5
IN TONNES CUMULATED	0.4	1.5	6.0	17.8	36.4	70.4	137.3	235.7	364.1	526.5
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	0.3	1.1	4.6	14.7	25.1	19.1	3.6	0.0	0.0	0.0
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

C. Uranium/Plutonium Fuelled
LMFBR-Reference Strategy
(high and low projection)

SCENARIO LAT.AMERICA HIGH 31 LMFBR-REF 100981 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.4	2.9	10.4	22.8	38.0	56.6	60.3	69.4	75.6	72.7
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	4.0	26.0	46.9	71.6	104.2
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.4	2.9	10.4	22.8	38.0	60.6	86.3	116.3	147.2	176.9

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	2.5	7.5	12.4	15.2	18.9	3.7	11.7	13.6	9.5
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	4.0	22.0	20.9	24.7	32.6
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	0.3	1.1	2.6	4.5	6.9	8.0	9.1	10.3	10.5	9.1
IN 1000 TONNES CUMULATED	1.2	4.8	14.1	31.9	60.6	97.6	140.7	189.5	241.5	290.4
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	0.3	1.1	2.6	4.5	6.8	7.1	6.7	7.8	8.3	6.6
IN 1000 TONNES CUMULATED	1.2	4.8	14.1	31.9	60.1	92.6	123.6	159.5	200.3	236.4
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	1.6	12.4	44.5	97.8	163.0	244.3	260.3	310.4	368.9	409.7
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	1.0	8.2	29.4	64.6	107.6	161.2	171.8	204.9	243.5	270.4
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.2	0.6	1.6	3.0	4.8	6.0	6.7	7.6	8.0	7.2
IN 1000 TONNES CUMULATED	0.6	2.6	8.2	19.9	39.3	66.3	98.0	133.7	172.7	210.6
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	52.7	202.8	481.5	851.7	1309.6	1535.1	1759.0	2015.3	2090.3	1844.3
IN 1000 TONNES HM CUMUL.	0.2	0.7	2.4	5.7	11.0	18.4	26.5	35.9	46.2	56.2
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	55.4	426.0	1076.8	1762.6	2621.2	3779.5
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.1	1.0	4.8	11.8	22.7	38.5

SCENARIO LAT.AMERICA HIGH 31 LMFBR-REF 100981 CODE SOPKA

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	90.8	784.2	2085.5	2165.0	1841.8	2002.7
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.5	4.4	14.8	25.6	34.8	44.9
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	76.4	538.0	1163.0	1850.4	2728.1
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.2	1.7	6.0	13.5	25.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	9.1	59.8	221.9	507.5	873.3	1419.6	2123.3	2978.6	3919.6	4872.2
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.9	2.8	6.2	12.0	20.8	33.6	51.1	73.2
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	9.1	59.8	221.9	507.5	782.5	541.3	-597.2	-441.4	118.2	-2.4
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.9	2.8	5.8	7.3	3.9	1.2	1.4	1.5
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	17.6	97.0	92.0	109.1	143.8
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.8	1.3	1.9
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	0.4	1.5	6.0	17.7	39.7	76.3	132.8	216.8	333.6	484.4
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	1.7	15.0	47.1	79.6	119.5	172.9
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	2.9	39.0	194.6	510.2	1005.5	1732.6
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	1.7	15.0	47.1	79.6	119.5	172.9
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	2.9	39.0	194.6	510.2	1005.5	1732.6
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	1.4	13.4	45.6	77.8	117.1	169.5
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	2.0	32.8	180.5	487.5	972.0	1684.3
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.1	0.4	1.4	3.3	5.6	14.0	46.7	84.5	127.2	180.8
IN TONNES CUMULATED	0.4	1.5	6.0	17.7	39.8	88.8	240.6	569.2	1099.4	1870.4
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	0.3	1.3	5.2	15.7	33.2	41.3	18.2	0.0	0.0	0.0
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO LAT.AMERICA LOW 31 LMFBR-REF 100981 CODE SOPK/

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.4	2.9	9.6	16.3	20.0	23.3	23.9	21.4	14.7	8.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	0.7	4.7	11.1	22.1	32.7
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.4	2.9	9.6	16.3	20.0	24.0	28.6	32.5	36.8	40.7

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	2.5	6.7	6.7	3.7	3.6	0.6	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	0.7	4.0	6.4	11.0	10.6
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	0.3	1.0	1.9	2.6	3.0	3.2	3.1	2.6	1.7	0.9
IN 1000 TONNES CUMULATED	1.2	4.6	11.9	23.1	37.1	52.7	68.5	82.7	93.2	99.6
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	0.3	1.0	1.9	2.6	3.0	3.1	2.6	1.7	0.6	0.1
IN 1000 TONNES CUMULATED	1.2	4.6	11.9	23.1	37.0	51.8	65.0	75.0	80.2	82.6
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	1.6	12.4	41.1	69.9	85.8	101.4	104.1	104.1	104.1	104.1
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	1.0	8.2	27.1	46.2	56.6	66.9	68.7	68.7	68.7	68.7
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

DIFFERENT FUEL SERVICES

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.2	0.6	1.3	1.8	2.2	2.4	2.4	2.1	1.4	0.7
IN 1000 TONNES CUMULATEL	0.6	2.5	7.2	15.1	25.2	36.9	49.0	60.1	68.7	74.0
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	52.7	189.2	363.6	486.8	580.9	616.5	613.8	535.5	361.7	196.1
IN 1000 TONNES HM CUMUL.	0.2	0.7	2.1	4.3	6.9	10.0	13.1	15.9	18.2	19.6
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	9.7	76.6	231.5	489.4	817.1	1097.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.2	0.9	2.7	5.9	10.8

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	15.9	140.6	438.8	728.0	930.0	673.1
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.1	0.8	3.0	6.6	11.3	14.6
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	13.4	97.0	261.1	537.0	853.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.2	3.2	6.7
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	9.1	59.8	205.9	373.6	481.1	586.6	709.2	870.5	1077.2	1224.4
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.9	2.3	4.5	7.2	10.4	14.4	19.4	25.2
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	9.1	59.8	205.9	373.6	465.2	429.5	155.8	-147.0	-438.2	-348.5
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.9	2.3	4.4	6.3	7.0	6.4	4.6	3.3
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	3.1	17.6	28.4	48.4	46.8
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.4	0.6

DETAILS ON FISSILE MATERIAL

1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	0.4	1.5	5.7	15.0	28.7	45.8	66.4	92.3	124.8	163.4
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.3	2.7	9.6	21.0	37.1	51.6
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.5	6.9	36.9	112.1	257.6	480.3
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.3	2.7	9.6	21.0	37.1	51.6
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.5	6.9	36.9	112.1	257.6	480.3
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.2	2.4	9.1	20.2	36.3	51.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.4	5.8	33.8	105.6	247.1	466.4
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.1	0.4	1.3	2.4	3.1	4.6	10.5	20.6	37.3	54.5
IN TONNES CUMULATED	0.4	1.5	5.7	15.0	28.7	48.0	85.8	164.1	309.6	539.1
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	0.3	1.3	5.0	13.4	26.0	37.9	42.2	38.1	26.2	17.8

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

D. Heavy Water Reactor
Once-Through Reference Strategy
(high and low projection)

SCENARIO LATIN AMERICA HIGH 41 HWR-OT-REF 100 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.4	2.9	10.4	22.8	38.0	60.6	86.3	116.3	147.2	176.9
HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.4	2.9	10.4	22.8	38.0	60.6	86.3	116.3	147.2	176.9

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	2.5	7.5	12.4	15.2	22.9	25.7	32.5	38.4	42.1
HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DURING THE PREVIOUS 5-YEAR PERIOD HWR-OT NAT. URAN. RETROFITTED TO HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	0.1	0.6	1.7	3.3	5.5	8.4	11.7	15.4	19.2	22.9
IN 1000 TONNES CUMULATED	0.6	2.5	8.3	20.9	43.0	77.6	127.7	195.5	282.1	387.3
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	0.1	0.6	1.7	3.3	5.5	8.4	11.7	15.4	19.2	22.9
IN 1000 TONNES CUMULATED	0.6	2.5	8.3	20.9	43.0	77.6	127.7	195.5	282.1	387.3
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	1.4	10.8	38.5	84.6	141.0	226.1	321.5	442.2	584.6	740.9
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	1.4	10.8	38.5	84.6	141.0	226.1	321.5	442.2	584.6	740.9
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	385.4	1153.3	1957.3	2472.1	3757.2	4301.8	5568.5	6298.2	6342.5	6235.7
IN 1000 TONNES D2O CUMUL.	0.8	3.7	10.5	21.0	35.1	54.6	78.1	105.7	134.7	163.7
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	85.8	476.6	1478.1	3054.8	5048.5	7886.1	11129.6	14853.7	18655.4	22324.7
IN 1000 TONNES HM CUMUL.	0.5	1.9	6.8	18.1	38.4	70.8	118.3	183.3	267.1	369.6
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	44.4	307.1	1128.2	2551.4	4352.8	6972.1	10046.8	13627.8	17384.3	21032.9
IN 1000 TONNES HM CUMUL.	0.3	1.2	4.8	14.0	31.2	59.5	102.1	161.3	238.8	334.9
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	44.4	307.1	1128.2	2551.4	4352.8	6972.1	10046.8	13627.8	17384.3	21032.9
IN 1000 TONNES HM CUMUL.	0.3	1.2	4.8	14.0	31.2	59.5	102.1	161.3	238.8	334.9
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

DETAILS ON FISSILE MATERIAL

1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	0.8	3.2	12.9	37.8	84.5	161.2	276.5	437.0	647.9	909.4
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.1	0.8	3.1	6.9	11.8	18.9	27.2	37.0	47.2	57.2
IN TONNES CUMULATED	0.8	3.2	12.9	37.8	84.5	161.2	276.5	437.0	647.9	909.4
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	0.6	2.5	10.1	30.9	72.0	140.9	246.2	395.2	593.3	842.1

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO LATIN AMERICA LOW 41 HWR-OT-REF 100 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.4	2.9	9.6	16.3	20.0	24.0	28.6	32.5	36.8	40.7
HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.4	2.9	9.6	16.3	20.0	24.0	28.6	32.5	36.8	40.7

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	2.5	6.7	6.7	3.7	4.3	4.6	6.4	11.0	10.6
HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DURING THE PREVIOUS 5-YEAR PERIOD HWR-OT NAT. URAN. RETROFITTED TO HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	0.1	0.6	1.4	2.1	2.6	3.1	3.7	4.2	4.7	5.2
IN 1000 TONNES CUMULATED	0.6	2.4	7.4	16.3	28.2	42.5	59.5	79.1	101.2	125.8
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	0.1	0.6	1.4	2.1	2.6	3.1	3.7	4.2	4.7	5.2
IN 1000 TONNES CUMULATED	0.6	2.4	7.4	16.3	28.2	42.5	59.5	79.1	101.2	125.8
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	1.4	10.8	35.5	60.5	74.2	90.3	107.5	131.3	172.1	211.5
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	1.4	10.8	35.5	60.5	74.2	90.3	107.5	131.3	172.1	211.5
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	385.4	1032.3	1089.1	683.5	807.4	832.5	1182.6	1518.0	865.4	434.5
IN 1000 TONNES D2O CUMUL.	0.8	3.5	8.8	13.8	17.4	21.3	26.1	31.1	35.5	39.3
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	85.8	463.9	1288.9	2070.2	2532.0	3034.7	3595.1	4089.2	4613.5	5090.1
IN 1000 TONNES HM CUMUL.	0.5	1.9	6.2	14.6	26.1	40.0	56.6	75.9	97.6	121.9
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO LATIN AMERICA LOW 41 HWR-OT-REF 100 CODE SOPKA

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	44.4	307.1	1045.3	1863.5	2369.6	2852.0	3401.2	3893.0	4415.9	4898.5
IN 1000 TONNES HM CUMUL.	0.3	1.2	4.5	11.8	22.4	35.5	51.1	69.3	90.1	113.4
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	44.4	307.1	1045.3	1863.5	2369.6	2852.0	3401.2	3893.0	4415.9	4898.5
IN 1000 TONNES HM CUMUL.	0.3	1.2	4.5	11.8	22.4	35.5	51.1	69.3	90.1	113.4
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

DETAILS ON FISSILE MATERIAL

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	0.8	3.2	12.3	32.0	60.7	96.0	138.4	188.1	245.1	308.9
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.1	0.8	2.8	5.0	6.4	7.7	9.2	10.6	12.1	13.4
IN TONNES CUMULATED	0.8	3.2	12.3	32.0	60.7	96.0	138.4	188.1	245.1	308.9
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	0.6	2.5	9.7	26.7	53.2	87.0	127.5	175.4	230.6	292.7
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

E. Thorium Strategies
(high projection)

SCENARIO LAT.AMERICA HIGH 51 HTGR-T/U-REF 100 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.4	2.9	10.4	5.2	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	17.6	38.0	56.6	60.3	57.8	50.3	37.9
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	4.0	26.0	58.5	96.9	139.0
TOTAL	0.4	2.9	10.4	22.8	38.0	60.6	86.3	116.3	147.2	176.9

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	2.5	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	12.4	15.2	18.9	3.7	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	4.0	22.0	32.5	38.4	42.1

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	5.2	5.2	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	0.3	1.1	2.6	4.2	6.5	9.6	11.5	12.8	13.4	13.6
IN 1000 TONNES CUMULATED	1.2	4.8	14.2	31.2	57.8	97.8	150.6	211.5	277.1	344.7
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	0.3	1.1	2.6	4.2	6.5	9.6	11.5	12.8	13.4	13.6
IN 1000 TONNES CUMULATED	1.2	4.8	14.2	31.2	57.8	97.8	150.6	211.5	277.1	344.7
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	1.4	11.3	40.5	86.8	143.5	220.2	267.7	317.3	375.9	440.1
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	1.1	9.0	32.2	70.4	117.1	179.9	216.7	254.1	298.3	346.7
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.5	0.5	0.6
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.1	0.7	2.2	4.2	6.7	9.5
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.2	0.6	1.7	3.1	5.3	9.3	11.9	13.8	15.1	16.0
IN 1000 TONNES CUMULATED	0.6	2.6	8.4	20.4	41.1	75.9	128.0	191.7	263.7	341.4
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	52.7	202.8	508.9	681.9	850.9	914.3	912.1	864.9	742.5	548.8
IN 1000 TONNES HM CUMUL.	0.2	0.7	2.4	5.3	9.2	13.8	18.4	22.9	26.9	30.1
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	36.3	229.8	491.2	789.6	1112.9	1455.7
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.1	0.6	2.3	5.4	10.1	16.5
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	14.9	109.2	297.6	540.0	814.1
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.4	3.5	6.8
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	9.1	59.8	221.9	426.8	579.0	773.1	992.8	1180.8	1340.9	1617.4
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.9	2.7	5.2	8.5	12.9	18.5	25.3	33.1
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	9.1	59.8	221.9	426.8	579.0	751.4	846.3	828.1	735.9	731.9
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.9	2.7	5.2	8.4	12.4	16.8	21.1	25.2
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	6.8	37.3	55.1	65.1	71.4
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.7	1.0

DETAILS ON FISSILE MATERIAL

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	0.4	1.5	6.0	17.8	36.4	62.1	94.7	129.7	164.0	194.6
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.1	0.4	1.4	3.0	4.4	6.1	6.9	6.8	6.0	5.5
IN TONNES CUMULATED	0.4	1.5	6.0	17.8	36.4	62.1	94.7	129.7	164.0	194.6
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	0.3	1.1	4.6	14.7	31.6	55.2	86.2	121.0	155.7	187.5
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO LAT.AMERICA HIGH 52 HWR-TH/PU 080981 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.4	2.9	10.4	5.2	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	17.6	38.0	56.6	61.0	86.7	109.7	129.8
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	4.0	25.3	29.6	37.5	47.1
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.4	2.9	10.4	22.8	38.0	60.6	86.3	116.3	147.2	176.9

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	2.5	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	12.4	15.2	18.9	4.4	28.2	30.6	32.5
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	4.0	21.3	4.3	7.8	9.6
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	5.2	5.2	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	0.3	1.1	2.6	4.2	6.0	7.0	9.4	12.4	15.1	17.2
IN 1000 TONNES CUMULATED	1.2	4.8	14.2	31.2	56.6	89.0	130.5	185.0	253.6	334.2
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	0.3	1.1	2.6	4.2	5.9	5.8	8.0	11.3	13.5	15.1
IN 1000 TONNES CUMULATED	1.2	4.8	14.2	31.2	56.2	82.4	117.2	166.3	227.1	297.0
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	1.4	11.3	40.5	86.8	143.5	214.1	230.5	335.8	449.8	570.9
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	1.1	9.0	32.2	70.4	117.1	175.3	188.8	275.6	369.6	469.5
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.1	0.4	0.4	0.2	0.3	0.4
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.1	1.2	3.3	4.7	6.0	7.7
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	605.0	3258.4	843.5	1408.4	1742.2	2435.2
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.7	7.1	20.6	25.5	33.1	42.7
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.2	0.6	1.7	3.1	4.8	6.1	7.5	10.2	12.6	14.6
IN 1000 TONNES CUMULATED	0.6	2.6	8.4	20.4	40.1	67.3	101.3	145.4	202.3	270.2
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	52.7	202.8	508.9	681.9	850.9	923.8	1330.3	1745.9	2115.8	2396.8
IN 1000 TONNES HM CUMUL.	0.2	0.7	2.4	5.3	9.2	13.8	19.1	26.8	36.4	47.7
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	79.5	535.2	787.6	976.8	1229.5	1578.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.1	1.2	4.9	9.3	14.7	21.7
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	72.3	941.2	1347.4	1003.0	1362.8	1746.4
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.4	5.1	11.8	16.8	23.6	32.4
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	60.5	435.6	780.0	954.6	1202.7
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.2	1.4	4.4	8.8	14.2
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	9.1	59.8	221.9	426.8	579.0	828.8	1379.7	1956.5	2481.4	3189.4
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.9	2.7	5.2	8.6	14.1	22.6	34.2	48.8
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	9.1	59.8	221.9	426.8	506.6	-189.8	-493.6	155.3	130.9	199.4
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.9	2.7	4.9	3.3	0.6	0.8	1.1	1.4
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	16.9	90.3	18.2	33.1	40.8
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.6	0.7	0.9
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	0.4	1.5	6.0	17.8	36.4	61.2	87.8	114.4	148.9	192.3
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	2.2	12.7	8.0	10.9	13.7	18.1
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	2.3	34.8	91.3	135.9	196.0	272.2
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	2.2	12.7	8.0	10.9	13.7	18.1
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	2.3	25.6	91.3	135.9	196.0	272.2
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	2.2	12.5	8.0	10.9	13.6	18.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	2.1	24.4	89.7	133.9	193.5	269.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	-0.0	9.2	0.0	-0.0	-0.0	-0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.1	0.4	1.4	3.0	4.4	6.2	7.7	10.6	13.6	17.1
IN TONNES CUMULATED	0.4	1.5	6.0	17.8	36.4	62.4	97.3	143.8	206.7	285.5
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	0.3	1.3	5.2	16.0	31.3	23.2	0.0	0.0	0.0	0.0
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.9	6.4	11.4	14.0	17.7
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	2.2	20.4	65.0	128.7	207.8
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.9	6.4	11.4	14.0	17.7
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	2.2	20.4	65.0	128.7	207.8
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.8	6.0	11.4	13.8	17.5
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	2.0	18.9	62.2	125.2	203.4
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	1.1	7.8	11.8	14.6	18.3
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	2.9	25.1	73.9	139.8	222.0

Thorium Strategies
(low projection)

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.4	2.9	9.6	4.8	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	11.5	20.0	23.3	23.9	21.4	14.7	8.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	0.7	4.7	11.1	22.1	32.7
TOTAL	0.4	2.9	9.6	16.3	20.0	24.0	28.6	32.5	36.8	40.7

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	2.5	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	6.7	3.7	3.6	0.6	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	0.7	4.0	6.4	11.0	10.6

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	4.8	4.8	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	0.3	1.0	2.0	2.5	2.7	3.3	3.6	3.8	3.4	2.8
IN 1000 TONNES CUMULATED	1.2	4.6	12.2	23.3	36.2	51.1	68.3	86.9	105.0	120.3
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	0.3	1.0	2.0	2.5	2.7	3.3	3.6	3.8	3.4	2.8
IN 1000 TONNES CUMULATED	1.2	4.6	12.2	23.3	36.2	51.1	68.3	86.9	105.0	120.3
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	1.4	11.3	37.4	62.4	76.2	90.9	99.3	109.1	125.9	142.1
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	1.1	9.0	29.7	50.4	61.7	73.7	80.3	87.7	100.3	112.5
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.9	1.5	2.2
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.2	0.6	1.4	2.0	2.3	3.1	3.5	4.1	3.9	3.3
IN 1000 TONNES CUMULATED	0.6	2.5	7.4	15.7	26.4	39.5	55.8	74.5	94.4	112.5
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	52.7	189.2	401.1	407.8	356.0	363.3	358.8	313.0	211.4	114.6
IN 1000 TONNES HM CUMUL.	0.2	0.7	2.1	4.2	6.2	8.0	9.8	11.5	12.8	13.6
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	6.4	41.6	93.8	183.6	263.1	315.8
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.1	0.4	1.1	2.2	3.7
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	2.6	19.7	55.8	116.4	189.5
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.7	1.4
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	9.1	59.8	205.9	340.0	349.5	325.5	364.4	377.6	362.7	425.6
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.9	2.4	4.1	5.7	7.4	9.4	11.7	13.9
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	9.1	59.8	205.9	340.0	349.5	321.7	337.9	310.9	227.7	218.1
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.9	2.4	4.1	5.7	7.3	9.1	10.9	12.2
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	1.2	6.8	10.9	18.6	18.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2

DETAILS ON FISSILE MATERIAL

1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	0.4	1.5	5.7	15.6	27.8	40.2	53.7	67.7	80.8	90.3
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.1	0.4	1.3	2.3	2.6	2.6	2.8	2.5	1.9	1.5
IN TONNES CUMULATED	0.4	1.5	5.7	15.6	27.8	40.2	53.7	67.7	80.8	90.3
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	0.3	1.1	4.5	13.1	24.8	37.0	50.2	64.3	77.8	88.3

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.4	2.9	9.6	4.8	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	11.5	20.0	23.0	23.6	21.1	19.0	22.9
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	1.0	5.0	11.4	17.8	17.8
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.4	2.9	9.6	16.3	20.0	24.0	28.6	32.5	36.8	40.7

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	2.5	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	6.7	3.7	3.3	0.6	0.0	4.6	10.6
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	1.0	4.0	6.4	6.4	0.0
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	4.8	4.8	0.0	0.0	0.0	0.0	0.0

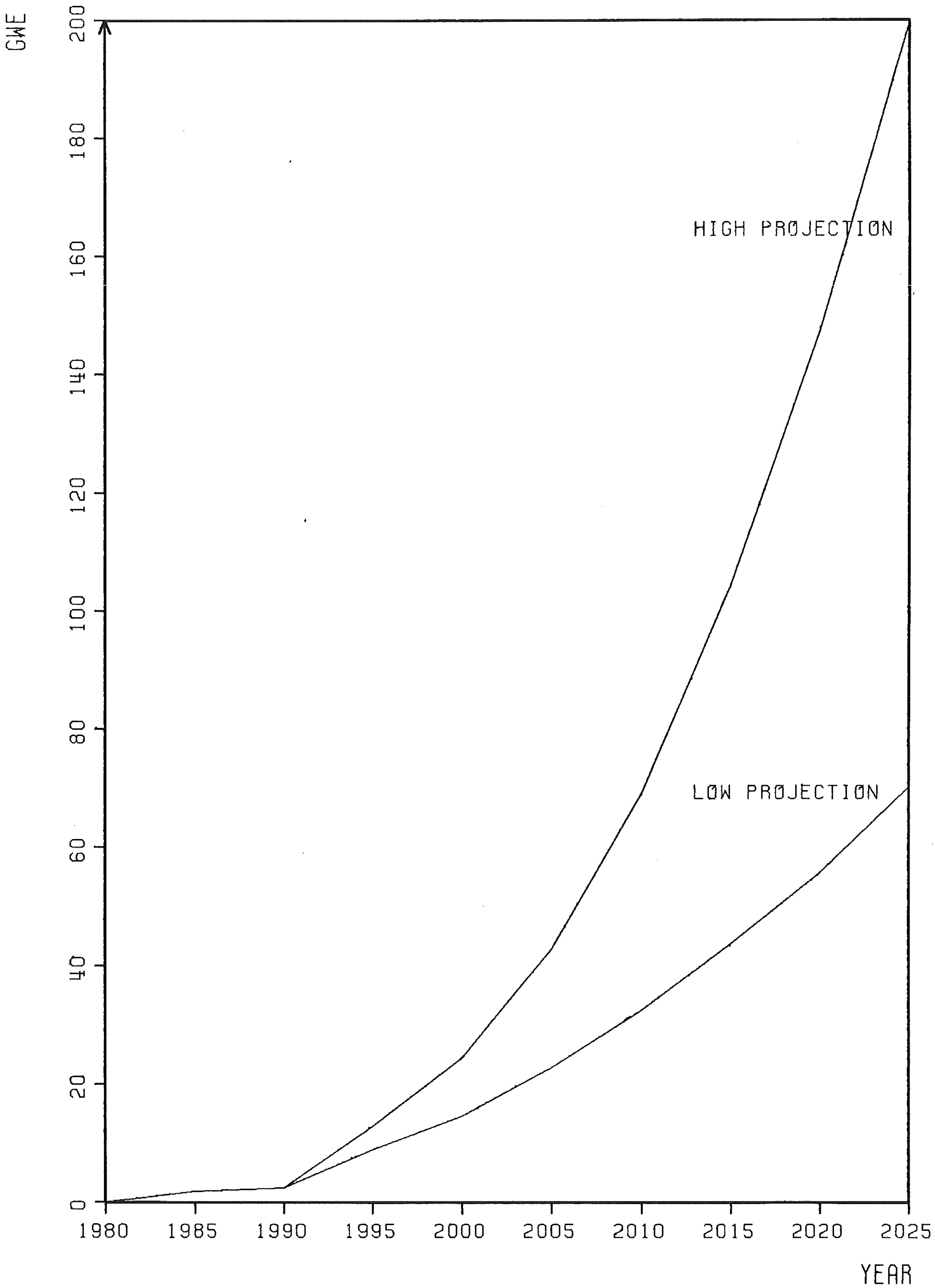
FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	0.3	1.0	2.0	2.5	2.6	2.8	2.7	2.6	2.8	3.2
IN 1000 TONNES CUMULATED	1.2	4.6	12.2	23.3	35.9	49.3	62.9	76.1	89.6	104.5
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	0.3	1.0	2.0	2.5	2.6	2.6	1.9	1.9	1.8	2.5
IN 1000 TONNES CUMULATED	1.2	4.6	12.2	23.3	35.8	48.3	58.2	68.2	76.7	88.2
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	1.4	11.3	37.4	62.4	76.2	88.7	91.0	91.0	108.1	147.7
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	1.1	9.0	29.7	50.4	61.7	72.0	73.9	73.9	88.0	120.7
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.1	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.3	0.9	1.8	2.6	2.9
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	151.2	612.6	1010.5	1055.3	135.5	135.5
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.2	1.5	5.1	10.3	14.5	15.2
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.2	0.6	1.4	2.0	2.2	2.4	2.4	2.3	2.3	2.6
IN 1000 TONNES CUMULATED	0.6	2.5	7.4	15.7	26.2	37.8	49.9	61.6	73.0	85.3
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	52.7	189.2	401.1	407.8	351.6	358.7	354.3	374.7	430.0	451.0
IN 1000 TONNES HM CUMUL.	0.2	0.7	2.1	4.2	6.2	8.0	9.8	11.5	13.5	15.7
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	19.9	107.2	266.4	443.9	494.0	494.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.3	1.1	2.9	5.4	7.9
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

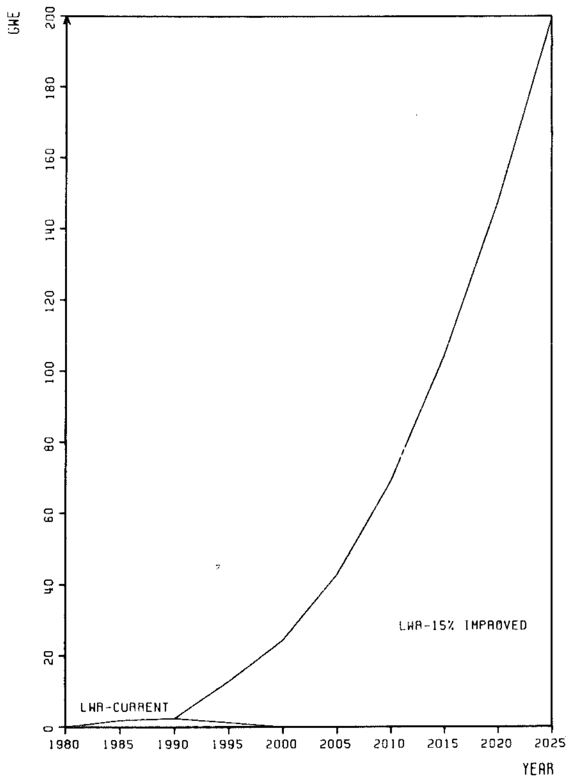
SCENARIO LAT.AMERICA LOW 52 HWR-TH/PU 080981 CODE SOPKA

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	18.1	157.0	492.5	635.1	733.0	442.7
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.1	0.9	3.3	6.5	10.2	12.4
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	15.1	88.7	238.3	419.3	503.1
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.1	2.8	5.1
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	9.1	59.8	205.9	340.0	349.5	337.7	439.3	572.1	721.9	902.7
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.9	2.4	4.1	5.7	7.7	10.4	14.0	18.3
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	9.1	59.8	205.9	340.0	331.5	161.3	-158.8	-328.6	-457.6	-43.0
IN 1000 TONNES HM CUMUL.	0.1	0.2	0.9	2.4	4.1	4.8	4.0	2.6	0.8	0.5
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	4.2	16.9	27.2	27.1	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.4
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	0.4	1.5	5.7	15.6	27.8	39.9	51.9	61.7	67.4	69.9
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.6	2.4	4.7	6.1	4.0	4.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.6	5.6	21.5	48.4	78.8	98.7
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.6	2.4	4.7	6.1	4.0	4.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.6	5.6	21.5	48.4	78.8	98.7
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.5	2.4	4.6	6.0	4.0	4.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.5	5.4	20.9	47.5	77.8	97.7
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	-0.0	-0.0	0.0	-0.0	-0.0	-0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.1	0.4	1.3	2.3	2.6	2.6	2.9	2.9	2.9	3.7
IN TONNES CUMULATED	0.4	1.5	5.7	15.6	27.8	40.2	54.0	69.1	85.7	103.2
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	0.3	1.3	5.0	14.1	25.5	32.6	30.3	18.2	4.2	1.6
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.2	1.3	3.5	6.2	7.4
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.6	4.4	16.4	40.5	74.3
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.2	1.3	3.5	6.2	7.4
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.6	4.4	16.4	40.5	74.3
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.2	1.2	3.4	6.0	7.4
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.5	4.1	15.5	39.0	72.5
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.3	1.6	3.9	6.6	7.4
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.7	5.3	19.0	45.2	80.2

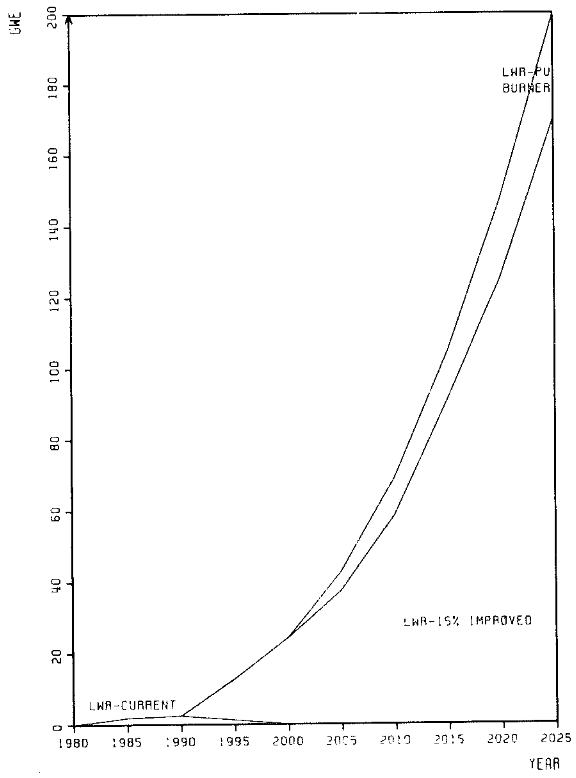
IV.3.5 Africa and Middle East



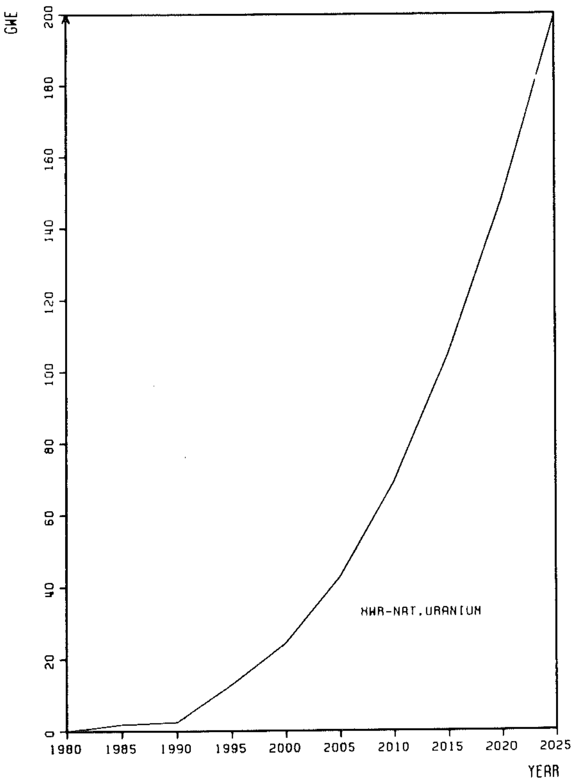
INSTALLED NUCLEAR CAPACITY FØR AFRICA & MID.EAST



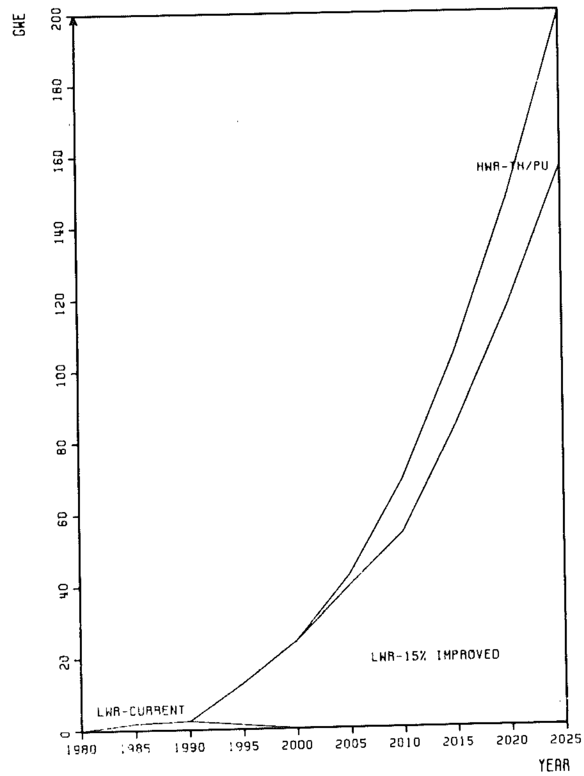
AFRICA & MID. EAST LWR-OT-REF STRATEGY (HIGH CASE)



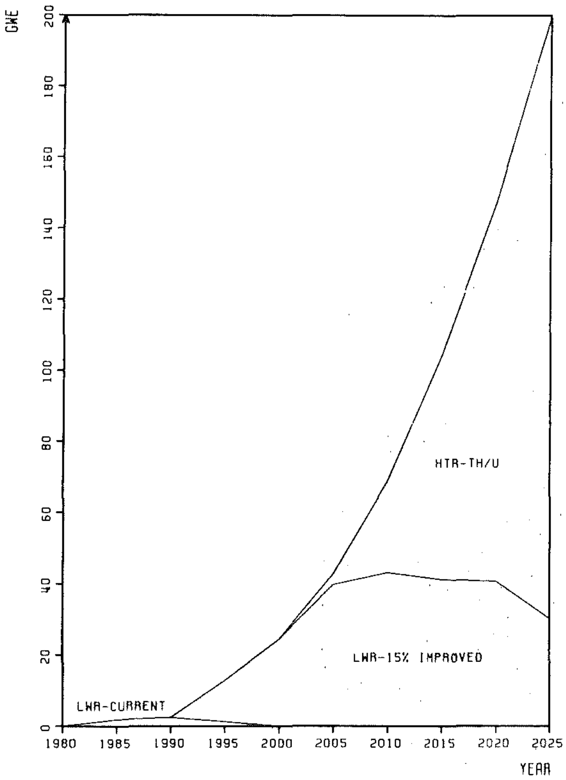
AFRICA & MID.EAST LWR-PU-REF STRATEGY (HIGH CASE)



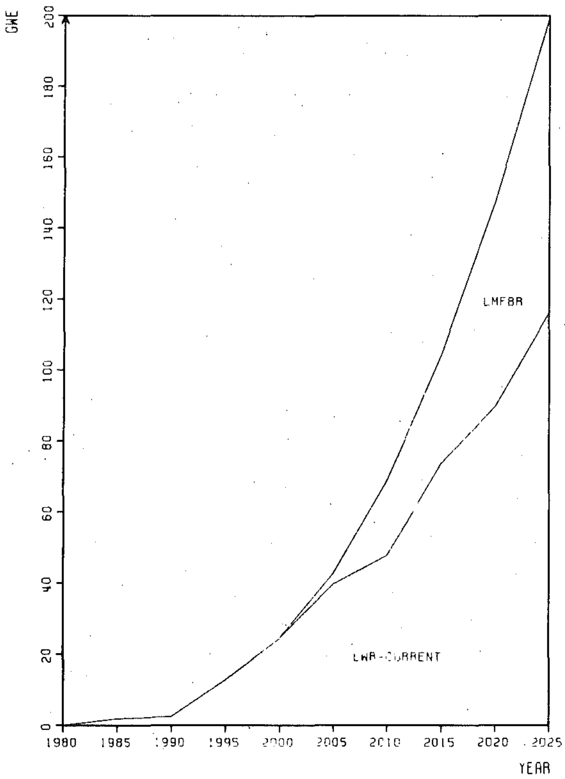
AFRICA & MID.EAST HWR-OT-REF STRATEGY (HIGH CASE)



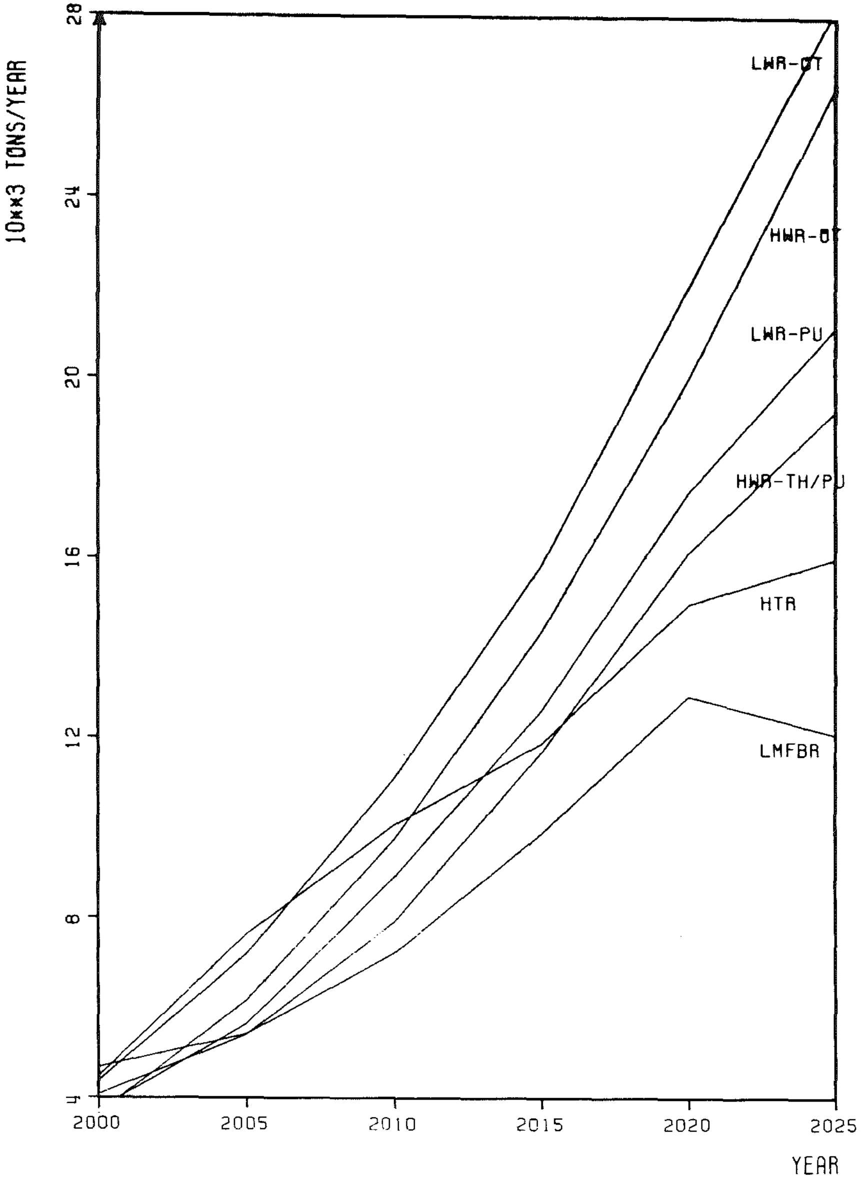
AFRICA & MIDDLE EAST
HWR-TH/PU-REF STRATEGY (HIGH CASE)



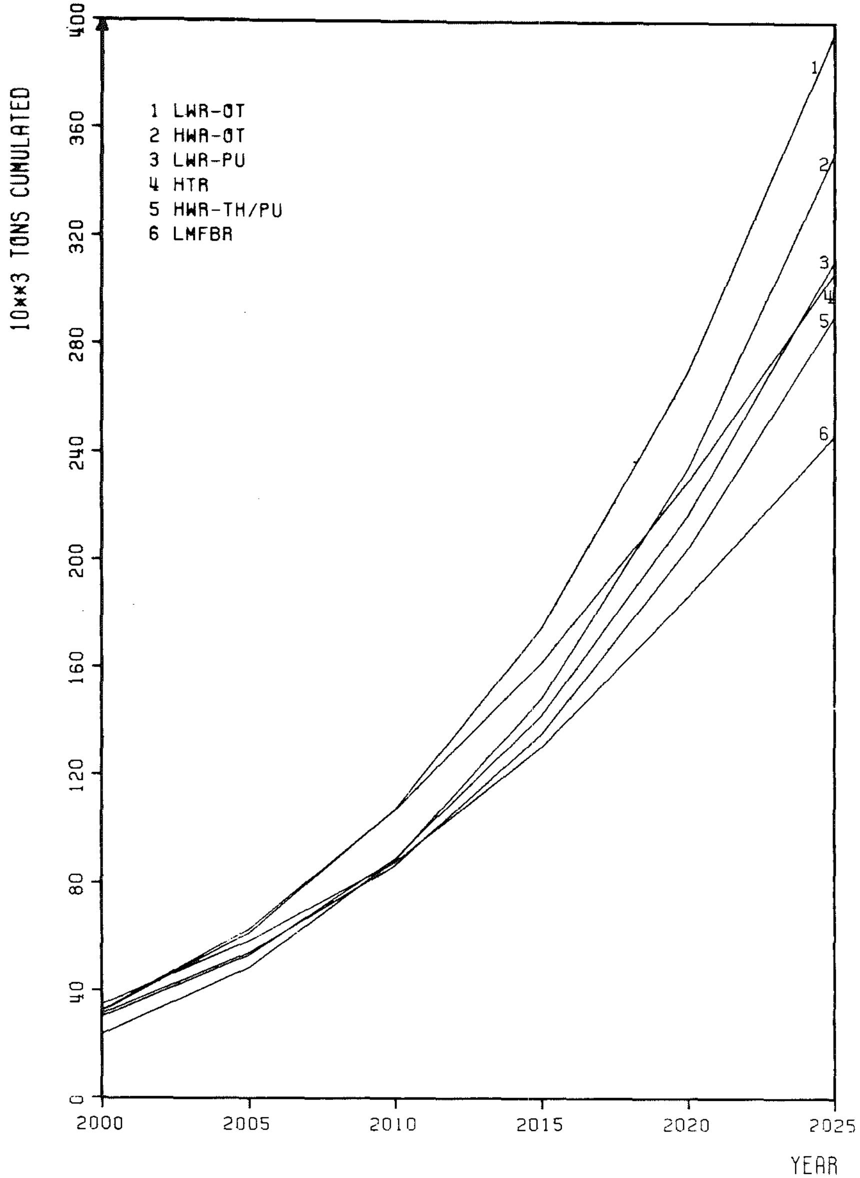
AFRICA & MIDDLE EAST
HTR-TH/U-REF STRATEGY (HIGH CASE)



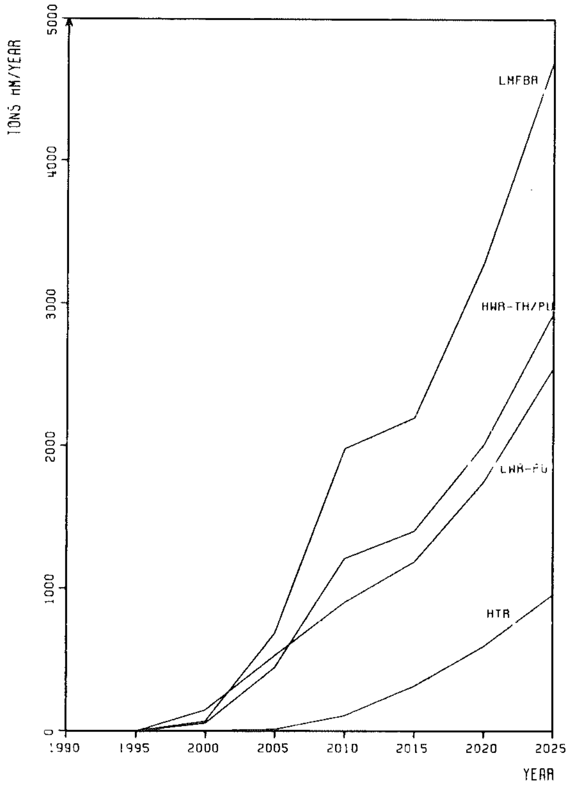
AFRICA & MID.EAST LMFBR-REF STRATEGY (HIGH CASE)



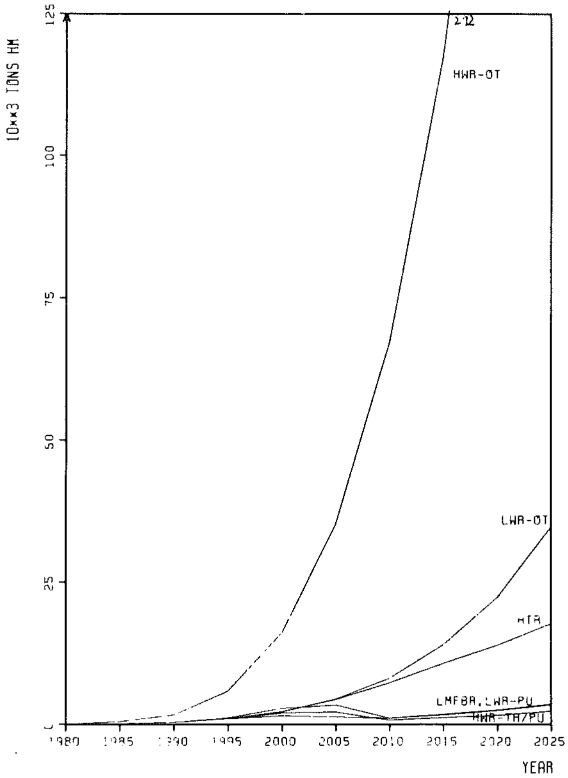
NATURAL URANIUM DEMAND FOR AFRICA & MIDDLE EAST
REFERENCE STRATEGIES (HIGH CASE)



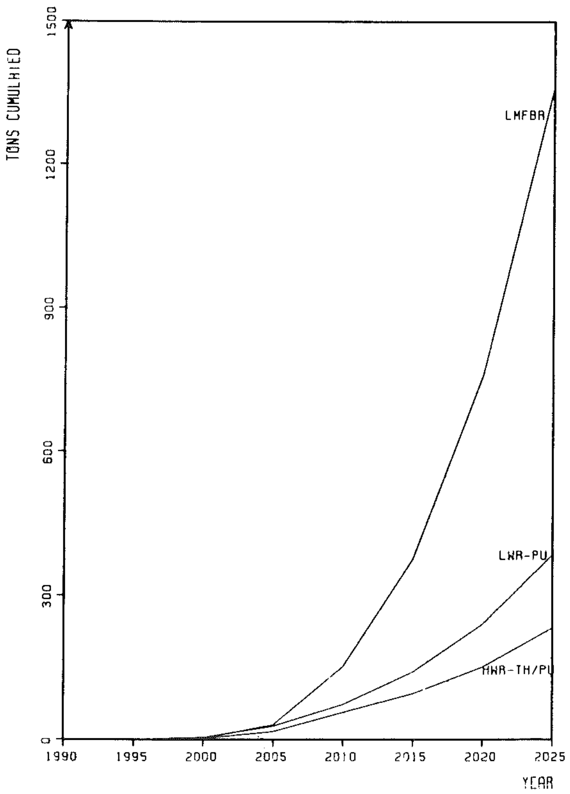
NATURAL URANIUM DEMAND FOR AFRICA & MIDDLE EAST
REF STRATEGY STRATEGIES (HIGH CASE)
(100 % U235 CREDIT ASSUMED FROM REPROCESSED SPENT FUEL)



ANNUAL REPROCESSING REQUIREMENTS FOR
AFRICA & MIDDLE EAST REFERENCE STRATEGIES (HIGH CASE)



AMOUNT OF UNREPROCESSED SPENT FUEL
IN AFRICA & MIDDLE EAST REFERENCE STRATEGIES (HIGH CASE)



FISSILE PLUTONIUM REPROCESSED
IN AFRICA & MIDDLE EAST REFERENCE STRATEGIES (HIGH CASE)

A. Light Water Reactor
Once-Through Reference Strategy
(high and low projection)

SCENARIO AFRICA-M.E. HIGH 11 LWR-OT-REF 10098 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	1.8	2.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	11.6	24.4	42.7	69.1	104.5	147.5	199.5
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	1.8	2.4	12.8	24.4	42.7	69.1	104.5	147.5	199.5

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	1.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	10.4	11.6	18.3	26.4	37.2	43.6	62.4
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	1.2	1.2	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	0.2	0.3	1.2	2.5	4.4	7.2	11.1	15.9	22.0	28.2
IN 1000 TONNES CUMULATED	0.5	1.6	5.7	15.0	32.4	61.4	107.4	175.0	270.1	395.8
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	0.2	0.3	1.2	2.5	4.4	7.2	11.1	15.9	22.0	28.2
IN 1000 TONNES CUMULATED	0.5	1.6	5.7	15.0	32.4	61.4	107.4	175.0	270.1	395.8
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	0.0	7.2	9.5	48.2	91.4	159.7	258.2	397.1	559.7	792.3
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	0.0	5.7	7.6	39.4	75.1	131.4	212.5	327.1	461.1	652.9
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.1	0.2	0.7	1.8	3.3	5.6	8.7	12.7	17.8	23.3
IN 1000 TONNES CUMULATED	0.2	1.0	3.3	9.6	22.5	44.7	80.4	134.1	210.4	313.1
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	31.3	58.1	227.3	389.5	635.6	1030.9	1585.7	2218.0	3125.6	3931.8
IN 1000 TONNES HM CUMUL.	0.1	0.3	0.9	2.4	4.9	8.9	15.3	24.8	37.9	55.5
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO AFRICA-M.E. HIGH 11 LWR-OT-REF 10098 CODE SOPKA

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	0.0	36.8	58.0	185.0	333.1	554.8	906.9	1384.3	1973.8	2819.3
IN 1000 TONNES HM CUMUL.	0.0	0.1	0.3	1.0	2.3	4.5	8.1	14.0	22.4	34.7
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	0.0	36.8	58.0	185.0	333.1	554.8	906.9	1384.3	1973.8	2819.3
IN 1000 TONNES HM CUMUL.	0.0	0.1	0.3	1.0	2.3	4.5	8.1	14.0	22.4	34.7
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	0.0	0.6	2.1	6.7	16.8	34.6	64.4	111.7	180.5	278.9
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.2	0.4	1.4	2.7	4.5	7.4	11.3	16.1	22.6
IN TONNES CUMULATED	0.0	0.6	2.1	6.7	16.8	34.6	64.4	111.7	180.5	278.9
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	0.0	0.4	1.7	5.4	14.0	29.7	56.3	99.1	162.2	253.1
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO AFRICA-M.E. LOW 11 LWR-OT-REF 10098 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	1.8	2.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	7.7	14.6	22.8	32.5	43.6	55.6	70.2
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	1.8	2.4	8.9	14.6	22.8	32.5	43.6	55.6	70.2

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	1.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	6.5	5.7	8.2	9.7	12.9	12.6	21.1
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	1.2	1.2	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	0.2	0.3	0.9	1.6	2.4	3.5	4.8	6.1	8.0	9.7
IN 1000 TONNES CUMULATED	0.5	1.6	4.8	11.0	20.9	35.6	56.4	83.8	119.3	163.5
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	0.2	0.3	0.9	1.6	2.4	3.5	4.8	6.1	8.0	9.7
IN 1000 TONNES CUMULATED	0.5	1.6	4.8	11.0	20.9	35.6	56.4	83.8	119.3	163.5
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	0.0	7.2	9.5	33.6	54.9	85.5	121.6	169.9	216.9	295.5
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	0.0	5.7	7.6	27.4	45.0	70.2	100.0	139.8	178.5	243.3
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.1	0.2	0.5	1.2	1.9	2.8	3.9	5.1	6.6	8.1
IN 1000 TONNES CUMULATED	0.2	1.0	2.9	7.2	14.8	26.5	43.2	65.6	94.7	131.3
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	31.3	58.1	170.9	244.9	340.5	486.9	677.9	843.9	1138.3	1350.6
IN 1000 TONNES HM CUMUL.	0.1	0.3	0.8	1.8	3.3	5.3	8.2	12.0	16.8	23.1
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO AFRICA-M.E. LOW 11 LWR-OT-REF 10098 CODE SOPKA

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	0.0	36.8	58.0	140.6	210.6	300.7	434.3	588.0	756.0	1038.5
IN 1000 TONNES HM CUMUL.	0.0	0.1	0.3	0.9	1.7	3.0	4.8	7.5	10.9	15.6
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	0.0	36.8	58.0	140.6	210.6	300.7	434.3	588.0	756.0	1038.5
IN 1000 TONNES HM CUMUL.	0.0	0.1	0.3	0.9	1.7	3.0	4.8	7.5	10.9	15.6
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

DETAILS ON FISSILE MATERIAL

1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	0.0	0.6	2.1	5.8	12.5	22.6	37.6	59.0	86.6	123.6
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.2	0.4	1.0	1.7	2.5	3.5	4.8	6.2	8.2
IN TONNES CUMULATED	0.0	0.6	2.1	5.8	12.5	22.6	37.6	59.0	86.6	123.6
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	0.0	0.4	1.7	4.8	10.7	19.9	33.6	53.4	79.4	114.1

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

B. Light Water Reactor With
Plutonium/Uranium Recycle Strategy
(low and high projection)

SCENARIO AFRICA & ME LOW 21 LWR-PU-REF 10991 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	1.8	2.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	7.7	14.6	19.9	25.7	36.8	45.8	58.2
LWR-PU-BURNER	0.0	0.0	0.0	0.0	0.0	2.8	6.8	6.8	9.8	12.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	1.8	2.4	8.9	14.6	22.8	32.5	43.6	55.6	70.2

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	1.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	6.5	5.7	5.3	5.8	12.9	9.6	18.9
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-PU-BURNER	0.0	0.0	0.0	0.0	0.0	2.8	3.9	0.0	3.0	2.2

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	1.2	1.2	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	0.2	0.3	0.9	1.6	2.2	2.8	4.0	5.1	6.7	7.9
IN 1000 TONNES CUMULATED	0.5	1.6	4.8	11.0	20.3	32.7	49.9	72.7	102.2	138.5
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	0.2	0.3	0.9	1.6	2.1	2.5	3.6	4.6	6.1	7.0
IN 1000 TONNES CUMULATED	0.5	1.6	4.8	11.0	19.8	30.5	45.6	66.0	92.8	124.5
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	0.0	7.2	9.5	33.6	54.9	74.8	96.3	144.5	180.3	250.7
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	0.0	5.7	7.6	27.4	45.0	61.4	79.1	118.9	148.4	206.4
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.1	0.2	0.5	1.2	1.8	2.3	3.2	4.2	5.4	6.6
IN 1000 TONNES CUMULATED	0.2	1.0	2.9	7.2	14.5	24.7	38.5	57.1	81.3	111.4
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	31.3	58.1	170.9	244.9	299.3	386.4	574.6	697.0	957.6	1095.7
IN 1000 TONNES HM CUMUL.	0.1	0.3	0.8	1.8	3.2	4.9	7.2	10.4	14.5	19.6
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	40.2	123.3	161.1	203.6	263.3	355.1
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.1	0.5	1.2	2.1	3.3	4.8

SCENARIO AFRICA & ME LOW 21 LWR-PU-REF 10981 CODE SOPKA

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	75.7	293.2	423.5	424.1	533.5	737.5
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.4	1.8	4.0	6.1	8.8	12.4
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	35.6	114.0	154.3	191.9	250.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.1	0.5	1.1	2.0	3.1
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	0.0	36.8	58.0	140.6	210.6	320.0	485.3	645.7	834.2	1136.6
IN 1000 TONNES HM CUMUL.	0.0	0.1	0.3	0.9	1.7	3.0	5.0	8.0	11.7	16.9
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	0.0	36.8	58.0	140.6	134.9	-24.9	-74.6	67.3	91.6	136.7
IN 1000 TONNES HM CUMUL.	0.0	0.1	0.3	0.9	1.4	1.1	0.5	0.6	0.7	1.0
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	16.2	22.4	-0.0	17.1	12.4
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.3

DETAILS ON FISSILE MATERIAL

1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	0.0	0.6	2.1	5.8	12.5	20.5	27.3	34.8	44.5	58.5
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	1.1	4.2	6.4	7.6	10.1	13.3
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	2.4	15.6	42.7	77.3	121.7	179.8
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	1.0	4.1	6.4	7.5	10.0	13.1
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	2.1	14.6	41.6	75.9	119.9	177.3
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.7	3.7	6.4	7.2	9.8	12.6
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	1.2	11.9	37.8	71.2	113.8	169.2
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.3	0.9	1.1	1.5	1.8	2.5
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.2	0.4	1.0	1.7	3.6	6.5	8.1	10.7	13.8
IN TONNES CUMULATED	0.0	0.6	2.1	5.8	12.5	25.4	50.4	87.5	134.6	196.9
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	0.0	0.4	1.7	4.8	8.3	6.1	0.6	0.0	0.0	0.0

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	1.8	2.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	11.6	24.4	37.4	58.5	91.1	125.3	170.2
LWR-PU-BURNER	0.0	0.0	0.0	0.0	0.0	5.3	10.6	13.4	22.2	29.3
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	1.8	2.4	12.8	24.4	42.7	69.1	104.5	147.5	199.5

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	1.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	10.4	11.6	13.0	21.2	34.4	34.9	55.2
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-PU-BURNER	0.0	0.0	0.0	0.0	0.0	5.3	5.2	2.9	8.7	7.2

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	1.2	1.2	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	0.2	0.3	1.2	2.5	3.9	6.1	9.6	13.6	18.8	23.3
IN 1000 TONNES CUMULATED	0.5	1.6	5.7	15.0	31.2	56.5	96.2	154.2	235.6	340.9
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	0.2	0.3	1.2	2.5	3.7	5.7	8.9	12.6	17.5	21.1
IN 1000 TONNES CUMULATED	0.5	1.6	5.7	15.0	30.2	53.1	89.2	142.5	217.1	311.3
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	0.0	7.2	9.5	48.2	91.4	139.8	218.7	346.9	477.1	683.0
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	0.0	5.7	7.6	39.4	75.1	115.0	180.0	285.7	393.0	562.8
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.1	0.2	0.7	1.8	3.1	4.8	7.5	11.0	15.2	19.5
IN 1000 TONNES CUMULATED	0.2	1.0	3.3	9.6	22.0	41.6	72.4	118.6	183.9	270.6
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	31.3	58.1	227.3	389.5	558.4	873.9	1383.5	1887.7	2685.4	3232.4
IN 1000 TONNES HM CUMUL.	0.1	0.3	0.9	2.4	4.8	8.2	13.7	21.9	33.0	47.9
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	75.3	200.5	291.1	441.4	625.9	942.3
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.1	0.8	2.1	3.8	6.5	10.3

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	146.2	462.3	713.8	909.7	1334.9	1953.4
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.7	3.0	6.6	11.2	17.8	27.6
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	66.6	186.6	275.9	413.8	592.2
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.2	0.8	2.0	3.7	6.2
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	0.0	36.8	58.0	185.0	333.1	591.0	987.8	1493.6	2147.0	3055.9
IN 1000 TONNES HM CUMUL.	0.0	0.1	0.3	1.0	2.3	4.5	8.5	14.8	23.9	37.3
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	0.0	36.8	58.0	185.0	186.9	31.8	57.6	291.8	348.9	469.7
IN 1000 TONNES HM CUMUL.	0.0	0.1	0.3	1.0	1.5	1.3	0.9	1.4	1.9	2.8
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	30.3	29.8	16.2	49.4	40.6
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.5	0.7
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	0.0	0.6	2.1	6.7	16.8	30.7	46.7	69.8	102.4	148.2
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	2.1	7.1	11.1	16.1	23.7	34.5
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	4.5	27.4	73.1	140.3	239.9	384.1
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	1.9	6.9	11.0	15.8	23.5	33.9
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	3.9	25.9	71.0	137.1	235.5	377.3
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	1.3	6.3	10.7	14.8	22.7	32.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	2.2	21.3	64.4	127.0	221.1	355.8
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.7	1.5	2.0	3.2	4.4	6.8
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.2	0.4	1.4	2.7	6.6	12.0	17.6	26.1	36.2
IN TONNES CUMULATED	0.0	0.6	2.1	6.7	16.8	39.8	86.4	161.0	270.3	427.5
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	0.0	0.4	1.7	5.4	9.5	5.8	0.0	0.0	0.0	0.0
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

C. Uranium/Plutonium Fuelled LMFBR-Reference-Strategy (high and low projection)

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	1.8	2.4	12.8	24.4	39.7	47.9	73.8	89.7	116.1
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	3.0	21.2	30.7	57.8	83.4
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	1.8	2.4	12.8	24.4	42.7	69.1	104.5	147.5	199.5

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	1.8	0.6	10.4	11.6	15.3	8.2	27.8	16.5	36.8
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	3.0	18.2	9.4	27.1	25.6
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	0.2	0.3	1.3	2.8	4.8	6.2	9.0	11.5	15.1	15.2
IN 1000 TONNES CUMULATED	0.5	1.6	5.9	16.3	35.3	62.4	100.8	151.9	219.0	294.0
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	0.2	0.3	1.3	2.8	4.7	5.4	7.2	9.9	12.9	12.1
IN 1000 TONNES CUMULATED	0.5	1.6	5.9	16.3	34.9	58.4	87.8	130.7	186.9	246.4
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	0.0	7.9	10.5	54.9	104.7	170.3	205.3	324.7	395.4	553.2
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	0.0	5.2	6.9	36.2	69.1	112.4	135.5	214.3	261.0	365.2
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.1	0.2	0.7	1.8	3.2	4.5	6.1	8.3	10.7	11.7
IN 1000 TONNES CUMULATED	0.2	1.0	3.2	9.6	22.2	41.4	67.9	104.1	151.6	207.8
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	31.3	58.1	240.0	530.4	895.1	1171.1	1712.7	2198.7	2928.1	2984.9
IN 1000 TONNES HM CUMUL.	0.1	0.3	0.9	2.8	6.3	11.6	18.5	28.5	41.0	56.3
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	41.6	343.7	774.2	1304.9	2105.1	3406.7
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.1	0.8	3.7	8.7	17.2	30.4

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	68.1	627.8	1547.1	1393.9	1869.3	2517.7
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.3	3.5	11.2	18.2	27.5	40.1
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	57.3	436.9	804.6	1419.8	2187.4
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.1	1.4	4.5	10.0	19.1
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	0.0	36.8	58.0	268.0	551.6	985.8	1672.0	2585.9	3709.4	5211.2
IN 1000 TONNES HM CUMUL.	0.0	0.1	0.3	1.1	3.2	7.0	13.7	24.4	40.1	62.7
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	0.0	36.8	58.0	268.0	483.5	287.5	-392.4	345.9	300.7	393.3
IN 1000 TONNES HM CUMUL.	0.0	0.1	0.3	1.1	2.9	3.4	0.8	1.1	1.5	2.0
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	13.2	80.5	41.5	119.6	112.7
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.6	1.0	1.6

DETAILS ON FISSILE MATERIAL

1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	0.0	0.6	2.1	7.3	20.4	44.9	87.3	157.5	262.1	413.4
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	1.2	12.0	35.3	56.6	96.1	149.7
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	2.2	30.5	151.5	375.9	758.2	1361.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	1.2	12.0	35.3	56.6	96.1	149.7
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	2.2	30.5	151.5	375.9	758.2	1361.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	1.0	10.6	34.7	54.6	94.2	145.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	1.5	25.4	141.6	358.7	731.3	1316.5
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.2	0.4	1.7	3.5	10.0	37.7	60.7	104.1	153.2
IN TONNES CUMULATED	0.0	0.6	2.1	7.3	20.5	54.3	173.5	419.9	831.6	1476.5
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	0.0	0.5	1.8	6.4	16.0	17.8	0.0	0.0	0.0	0.0

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO AFRICA & HE LOW 31 LMFBR-REF 100981 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	1.8	2.4	8.9	14.6	21.3	22.5	26.1	28.8	31.5
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	1.5	10.0	17.5	26.8	38.7
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	1.8	2.4	8.9	14.6	22.8	32.5	43.6	55.6	70.2

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	1.8	0.6	6.5	5.7	6.7	1.2	5.4	3.3	9.2
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	1.5	8.5	7.5	9.3	11.9
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	0.2	0.3	0.9	1.7	2.6	3.0	3.5	3.8	4.4	4.0
IN 1000 TONNES CUMULATED	0.5	1.6	4.9	11.6	22.5	36.4	52.7	70.8	91.6	112.5
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	0.2	0.3	0.9	1.7	2.6	2.7	2.5	2.9	3.7	2.9
IN 1000 TONNES CUMULATED	0.5	1.6	4.9	11.6	22.3	34.5	46.1	59.5	76.4	92.0
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	0.0	7.9	10.5	38.2	62.6	91.4	96.5	119.7	133.9	173.2
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	0.0	5.2	6.9	25.2	41.3	60.3	63.7	79.0	88.4	114.3
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.1	0.2	0.5	1.2	1.8	2.2	2.5	2.8	3.2	3.1
IN 1000 TONNES CUMULATED	0.2	1.0	2.8	7.1	14.6	24.7	36.6	50.0	65.1	81.1
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	31.3	58.1	173.5	328.5	493.7	574.2	671.4	732.0	884.4	801.0
IN 1000 TONNES HM CUMUL.	0.1	0.3	0.8	2.1	4.1	6.8	9.9	13.4	17.4	21.7
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	20.8	163.2	407.5	660.3	978.0	1454.8
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.4	1.8	4.5	8.5	14.5

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	34.1	299.7	793.5	797.3	666.9	810.8
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.2	1.7	5.6	9.6	13.0	17.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	28.7	206.5	438.1	693.4	1016.3
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.1	0.7	2.3	5.1	9.4
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	0.0	36.8	58.0	190.1	336.2	533.9	800.1	1129.7	1447.6	1929.7
IN 1000 TONNES HM CUMUL.	0.0	0.1	0.3	0.9	2.3	4.4	7.8	12.7	19.1	27.7
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	0.0	36.8	58.0	190.1	302.2	198.9	-237.4	-138.9	46.3	50.1
IN 1000 TONNES HM CUMUL.	0.0	0.1	0.3	0.9	2.1	2.7	1.4	0.5	0.5	0.6
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	6.6	37.5	33.3	41.0	52.4
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.5	0.7

DETAILS ON FISSILE MATERIAL

1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	0.0	0.6	2.1	6.1	14.5	28.4	49.6	81.5	124.8	183.3
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.6	5.7	17.9	29.8	44.7	65.7
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	1.1	14.8	74.2	193.0	378.4	651.8
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.6	5.7	17.9	29.8	44.7	65.7
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	1.1	14.8	74.2	193.0	378.4	651.8
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.5	5.1	17.4	29.1	43.8	64.2
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.8	12.4	68.9	184.5	365.9	633.1
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.2	0.4	1.2	2.2	5.3	17.9	31.8	47.6	68.0
IN TONNES CUMULATED	0.0	0.6	2.1	6.1	14.5	33.0	90.8	215.3	413.6	703.6
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	0.0	0.5	1.8	5.4	12.0	15.0	6.0	0.0	0.0	0.0

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

D. Heavy Water Reactor
Once-Through Reference Strategy
(high and low projection)

SCENARIO AFRICA & ME HIGH 41 HWR-OT-REF 100 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	1.8	2.4	12.8	24.4	42.7	69.1	104.5	147.5	199.5
HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	1.8	2.4	12.8	24.4	42.7	69.1	104.5	147.5	199.5

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	1.8	0.6	10.4	11.6	18.3	26.4	37.2	43.6	62.4
HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DURING THE PREVIOUS 5-YEAR PERIOD HWR-OT NAT. URAN. RETROFITTED TO HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	0.1	0.2	0.7	2.0	3.6	6.2	9.7	14.4	20.0	26.4
IN 1000 TONNES CUMULATED	0.2	0.9	3.2	9.8	23.9	48.5	88.3	148.7	234.7	350.8
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	0.1	0.2	0.7	2.0	3.6	6.2	9.7	14.4	20.0	26.4
IN 1000 TONNES CUMULATED	0.2	0.9	3.2	9.8	23.9	48.5	88.3	148.7	234.7	350.8
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	0.0	6.8	9.1	47.5	90.5	158.4	256.4	394.5	556.3	787.6
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	0.0	6.8	9.1	47.5	90.5	158.4	256.4	394.5	556.3	787.6
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	278.3	105.2	1585.0	1851.7	2953.1	4317.3	6155.9	7108.6	10452.3	9552.0
IN 1000 TONNES D2O CUMUL.	0.3	1.5	3.9	12.2	23.0	39.6	63.7	94.9	135.7	181.7
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	29.2	236.6	465.9	1763.7	3301.5	5688.3	9091.8	13578.9	19043.2	25461.9
IN 1000 TONNES HM CUMUL.	0.1	0.7	2.5	8.1	20.8	43.3	80.3	137.0	218.6	329.9
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO AFRICA & ME HIGH 41 HWR-OT-REF 100 CODE SOPKA

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	0.0	190.6	286.7	1370.5	2761.3	4868.9	7938.0	12090.1	17189.3	23376.2
IN 1000 TONNES HM CUMUL.	0.0	0.5	1.7	5.8	16.1	35.2	67.2	117.3	190.5	292.0
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	0.0	190.6	286.7	1370.5	2761.3	4868.9	7938.0	12090.1	17189.3	23376.2
IN 1000 TONNES HM CUMUL.	0.0	0.5	1.7	5.8	16.1	35.2	67.2	117.3	190.5	292.0
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	0.0	1.3	4.5	15.7	43.7	95.4	182.1	317.9	516.2	792.0
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.5	0.8	3.7	7.5	13.2	21.5	32.8	46.6	63.5
IN TONNES CUMULATED	0.0	1.3	4.5	15.7	43.7	95.4	182.1	317.9	516.2	792.0
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	0.0	0.9	3.6	12.6	36.0	81.5	159.0	282.0	464.2	720.1
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO AFRICA & ME LOW 41 HWR-OT-REF 100 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	1.8	2.4	8.9	14.6	22.8	32.5	43.6	55.6	70.2
HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	1.8	2.4	8.9	14.6	22.8	32.5	43.6	55.6	70.2

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	1.8	0.6	6.5	5.7	8.2	9.7	12.9	12.6	21.1
HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DURING THE PREVIOUS 5-YEAR PERIOD HWR-OT NAT. URAN. RETROFITTED TO HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	0.1	0.2	0.5	1.3	2.1	3.1	4.4	5.8	7.4	9.2
IN 1000 TONNES CUMULATED	0.2	0.9	2.9	7.4	15.9	29.0	47.8	73.3	106.3	147.6
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	0.1	0.2	0.5	1.3	2.1	3.1	4.4	5.8	7.4	9.2
IN 1000 TONNES CUMULATED	0.2	0.9	2.9	7.4	15.9	29.0	47.8	73.3	106.3	147.6
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	0.0	6.8	9.1	33.0	54.2	84.6	120.6	168.6	215.3	293.5
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	0.0	6.8	9.1	33.0	54.2	84.6	120.6	168.6	215.3	293.5
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	278.3	105.2	995.1	929.7	1351.1	1640.3	2202.6	1957.3	3510.7	2617.9
IN 1000 TONNES D2O CUMUL.	0.3	1.5	3.2	8.1	13.3	20.5	29.5	39.3	51.8	65.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	29.2	236.6	404.0	1188.7	1931.8	2967.5	4189.6	5571.7	7102.9	8903.4
IN 1000 TONNES HM CUMUL.	0.1	0.7	2.4	6.3	14.2	26.4	44.3	68.7	100.4	140.4
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO AFRICA & ME LOW 41 HWR-OT-REF 100 CODE SOPKA

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	0.0	190.6	286.7	966.5	1675.0	2628.5	3783.1	5113.0	6557.0	8297.4
IN 1000 TONNES HM CUMUL.	0.0	0.5	1.7	4.8	11.4	22.2	38.2	60.4	89.6	126.8
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	0.0	190.6	286.7	966.5	1675.0	2628.5	3783.1	5113.0	6557.0	8297.4
IN 1000 TONNES HM CUMUL.	0.0	0.5	1.7	4.8	11.4	22.2	38.2	60.4	89.6	126.8
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	0.0	1.3	4.5	13.0	30.9	60.0	103.4	163.9	242.9	344.3
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.5	0.8	2.6	4.5	7.1	10.2	13.9	17.8	22.6
IN TONNES CUMULATED	0.0	1.3	4.5	13.0	30.9	60.0	103.4	163.9	242.9	344.3
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	0.0	0.9	3.6	10.7	26.0	52.3	92.0	148.1	222.5	318.1
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

E. Thorium Strategies
(high projection)

SCENARIO AFRICA & ME HIGH 51 HTGR-T/U-REF 100 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	1.8	2.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	11.6	24.4	39.7	43.1	41.3	40.7	30.3
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	3.0	26.0	63.2	106.8	169.2
TOTAL	0.0	1.8	2.4	12.8	24.4	42.7	69.1	104.5	147.5	199.5

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	1.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	10.4	11.6	15.3	3.4	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	3.0	23.0	37.2	43.6	62.4

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	1.2	1.2	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	0.2	0.3	1.2	2.5	4.5	7.6	10.1	11.9	15.0	16.0
IN 1000 TONNES CUMULATED	0.5	1.6	5.7	15.0	32.6	62.8	107.1	162.1	229.4	306.9
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	0.2	0.3	1.2	2.5	4.5	7.6	10.1	11.9	15.0	16.0
IN 1000 TONNES CUMULATED	0.5	1.6	5.7	15.0	32.6	62.8	107.1	162.1	229.4	306.9
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	0.0	7.2	9.5	48.2	91.4	153.1	200.8	257.6	324.1	419.2
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	0.0	5.7	7.6	39.4	75.1	125.6	162.5	205.3	255.5	327.2
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.5	0.7	0.8
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.1	0.7	2.3	4.6	7.7	11.6
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.1	0.2	0.7	1.8	3.6	7.6	10.8	13.2	17.4	19.3
IN 1000 TONNES CUMULATED	0.2	1.0	3.3	9.6	22.9	49.1	93.7	153.0	227.6	319.2
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	31.3	58.1	227.3	389.5	592.2	652.6	651.9	626.1	599.7	440.1
IN 1000 TONNES HM CUMUL.	0.1	0.3	0.9	2.4	4.8	8.1	11.4	14.6	17.6	20.2
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	27.2	231.3	534.0	872.5	1371.5	1852.9
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.5	2.3	5.8	11.2	19.3
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO AFRICA & ME HIGH 51 HTGR-T/U-REF 100 CODE SOPKA

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	11.2	106.1	315.1	591.4	956.9
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.4	3.6	7.5
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	0.0	36.8	58.0	185.0	333.1	536.9	747.9	969.8	1244.7	1654.8
IN 1000 TONNES HM CUMUL.	0.0	0.1	0.3	1.0	2.3	4.4	7.6	12.0	17.6	25.2
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	0.0	36.8	58.0	185.0	333.1	520.7	602.8	591.5	579.4	592.2
IN 1000 TONNES HM CUMUL.	0.0	0.1	0.3	1.0	2.3	4.4	7.2	10.3	13.2	16.5
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	5.1	39.0	63.1	73.9	105.7
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.7	1.2
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	0.0	0.6	2.1	6.7	16.8	33.9	56.8	81.8	105.9	130.3
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.2	0.4	1.4	2.7	4.3	4.9	4.8	4.7	4.4
IN TONNES CUMULATED	0.0	0.6	2.1	6.7	16.8	33.9	56.8	81.8	105.9	130.3
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	0.0	0.4	1.7	5.4	14.0	29.2	50.8	75.5	99.9	124.6
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO AFRICA & ME HIGH 52 HWR-TH/PU 080981 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	1.8	2.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	11.6	24.4	39.7	54.2	83.6	117.3	156.5
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	3.0	14.9	20.9	30.2	43.0
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	1.8	2.4	12.8	24.4	42.7	69.1	104.5	147.5	199.5

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	1.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	10.4	11.6	15.3	14.5	31.2	34.3	49.5
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	3.0	11.9	6.1	9.3	12.9
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	1.2	1.2	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	0.2	0.3	1.2	2.5	4.1	5.9	8.9	12.6	17.4	21.5
IN 1000 TONNES CUMULATED	0.5	1.6	5.7	15.0	31.7	56.7	93.8	147.6	223.1	320.2
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	0.2	0.3	1.2	2.5	4.1	5.4	7.9	11.7	16.1	19.3
IN 1000 TONNES CUMULATED	0.5	1.6	5.7	15.0	31.4	54.0	86.5	135.6	204.6	290.8
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	0.0	7.2	9.5	48.2	91.4	148.5	202.7	319.0	447.1	631.7
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	0.0	5.7	7.6	39.4	75.1	122.1	166.9	262.7	368.3	520.5
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.3	0.4	0.6
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.1	0.8	2.1	3.4	4.9	7.1
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	453.7	1816.4	1031.9	1559.0	2173.9	3458.4
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.6	4.5	12.8	18.6	27.3	39.8
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.1	0.2	0.7	1.8	3.2	4.8	6.9	10.2	14.1	17.9
IN 1000 TONNES CUMULATED	0.2	1.0	3.3	9.6	22.2	42.1	71.3	114.0	174.6	254.7
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	31.3	58.1	227.3	389.5	592.2	813.7	1271.9	1765.9	2480.8	2978.0
IN 1000 TONNES HM CUMUL.	0.1	0.3	0.9	2.4	4.8	8.3	13.3	20.9	31.3	45.0
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	59.7	318.9	532.4	764.0	1092.0	1604.1
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.1	0.8	3.1	6.2	10.8	17.3
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	54.2	398.9	944.9	891.0	1279.7	1882.9
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.3	2.3	7.0	11.4	17.8	27.3
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	45.4	264.0	511.1	730.5	1046.1
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.1	0.9	2.8	5.9	10.4
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	0.0	36.8	58.0	185.0	333.1	578.7	1043.6	1640.9	2340.8	3344.6
IN 1000 TONNES HM CUMUL.	0.0	0.1	0.3	1.0	2.3	4.5	8.6	15.4	25.4	39.9
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	0.0	36.8	58.0	185.0	278.9	121.7	-215.5	213.1	291.3	361.2
IN 1000 TONNES HM CUMUL.	0.0	0.1	0.3	1.0	2.0	2.1	0.5	0.7	1.1	1.5
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	12.7	50.2	25.7	39.2	54.4
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.5	0.8

DETAILS ON FISSILE MATERIAL

1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	0.0	0.6	2.1	6.7	16.8	33.3	54.9	83.2	122.2	178.1
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	1.7	7.2	6.7	9.8	13.9	21.1
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	1.7	16.8	56.3	94.9	151.1	232.1
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	1.7	7.2	6.7	9.8	13.9	21.1
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	1.7	16.8	56.3	94.9	151.1	232.1
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	1.6	7.1	6.6	9.7	13.7	20.8
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	1.6	16.1	55.2	93.3	148.9	228.8
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	-0.0	-0.0	0.0	-0.0	-0.0	-0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.2	0.4	1.4	2.7	4.3	6.4	9.8	13.9	19.5
IN TONNES CUMULATED	0.0	0.6	2.1	6.7	16.8	34.1	60.9	101.9	161.4	246.4
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	0.0	0.5	1.8	6.0	13.4	14.4	0.0	0.0	0.0	0.0

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.7	3.9	7.5	10.7	15.4
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	1.7	13.0	41.4	87.0	152.2
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.7	3.9	7.5	10.7	15.4
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	1.7	13.0	41.4	87.0	152.2
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.6	3.6	7.4	10.5	15.1
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	1.5	12.1	39.6	84.4	148.4
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.9	4.6	7.9	11.4	16.2
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	2.1	15.9	47.2	95.4	164.3

Thorium Strategies
(low projection)

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	1.8	2.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	7.7	14.6	21.3	22.5	20.7	20.1	13.6
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	1.5	10.0	22.9	35.5	56.6
TOTAL	0.0	1.8	2.4	8.9	14.6	22.8	32.5	43.6	55.6	70.2

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	1.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	6.5	5.7	6.7	1.2	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	1.5	8.5	12.9	12.6	21.1

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	1.2	1.2	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	0.2	0.3	0.9	1.6	2.4	3.6	4.4	4.6	5.7	5.6
IN 1000 TONNES CUMULATED	0.5	1.6	4.8	11.0	21.0	36.1	56.1	78.5	104.2	132.3
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	0.2	0.3	0.9	1.6	2.4	3.6	4.4	4.6	5.7	5.6
IN 1000 TONNES CUMULATED	0.5	1.6	4.8	11.0	21.0	36.1	56.1	78.5	104.2	132.3
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	0.0	7.2	9.5	33.6	54.9	82.2	99.6	119.3	138.5	170.7
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	0.0	5.7	7.6	27.4	45.0	67.3	80.7	95.6	110.1	134.3
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.3	0.8	1.6	2.6	3.9
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.1	0.2	0.5	1.2	2.0	3.5	4.6	4.9	6.5	6.6
IN 1000 TONNES CUMULATED	0.2	1.0	2.9	7.2	15.1	28.2	48.0	71.7	99.3	132.1
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	31.3	58.1	170.9	244.9	318.8	341.1	338.8	313.0	293.5	196.7
IN 1000 TONNES HM CUMUL.	0.1	0.3	0.8	1.8	3.2	5.0	6.7	8.3	9.8	11.0
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	13.6	88.4	192.8	287.3	459.1	611.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.2	0.9	2.1	3.9	6.6
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	5.6	41.9	116.1	202.5	319.5
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	1.3	2.6
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	0.0	36.8	58.0	140.6	210.6	291.8	372.6	436.8	510.6	649.2
IN 1000 TONNES HM CUMUL.	0.0	0.1	0.3	0.9	1.7	3.0	4.6	6.8	9.2	12.3
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	0.0	36.8	58.0	140.6	210.6	283.6	316.3	298.8	286.7	294.0
IN 1000 TONNES HM CUMUL.	0.0	0.1	0.3	0.9	1.7	2.9	4.4	6.1	7.6	9.3
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	2.5	14.4	21.9	21.4	35.7
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.4

DETAILS ON FISSILE MATERIAL

1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	0.0	0.6	2.1	5.8	12.5	22.2	34.5	47.6	59.8	72.0
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.2	0.4	1.0	1.7	2.3	2.6	2.4	2.3	2.1
IN TONNES CUMULATED	0.0	0.6	2.1	5.8	12.5	22.2	34.5	47.6	59.8	72.0
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	0.0	0.4	1.7	4.8	10.7	19.6	31.3	44.4	56.8	69.2

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	1.8	2.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	7.7	14.6	21.3	23.3	32.5	41.8	52.4
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	1.5	9.2	11.1	13.8	17.8
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	1.8	2.4	8.9	14.6	22.8	32.5	43.6	55.6	70.2

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.0	1.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	6.5	5.7	6.7	2.0	11.0	9.9	17.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	1.5	7.7	1.9	2.7	4.0
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	1.2	1.2	0.0	0.0	0.0	0.0	0.0

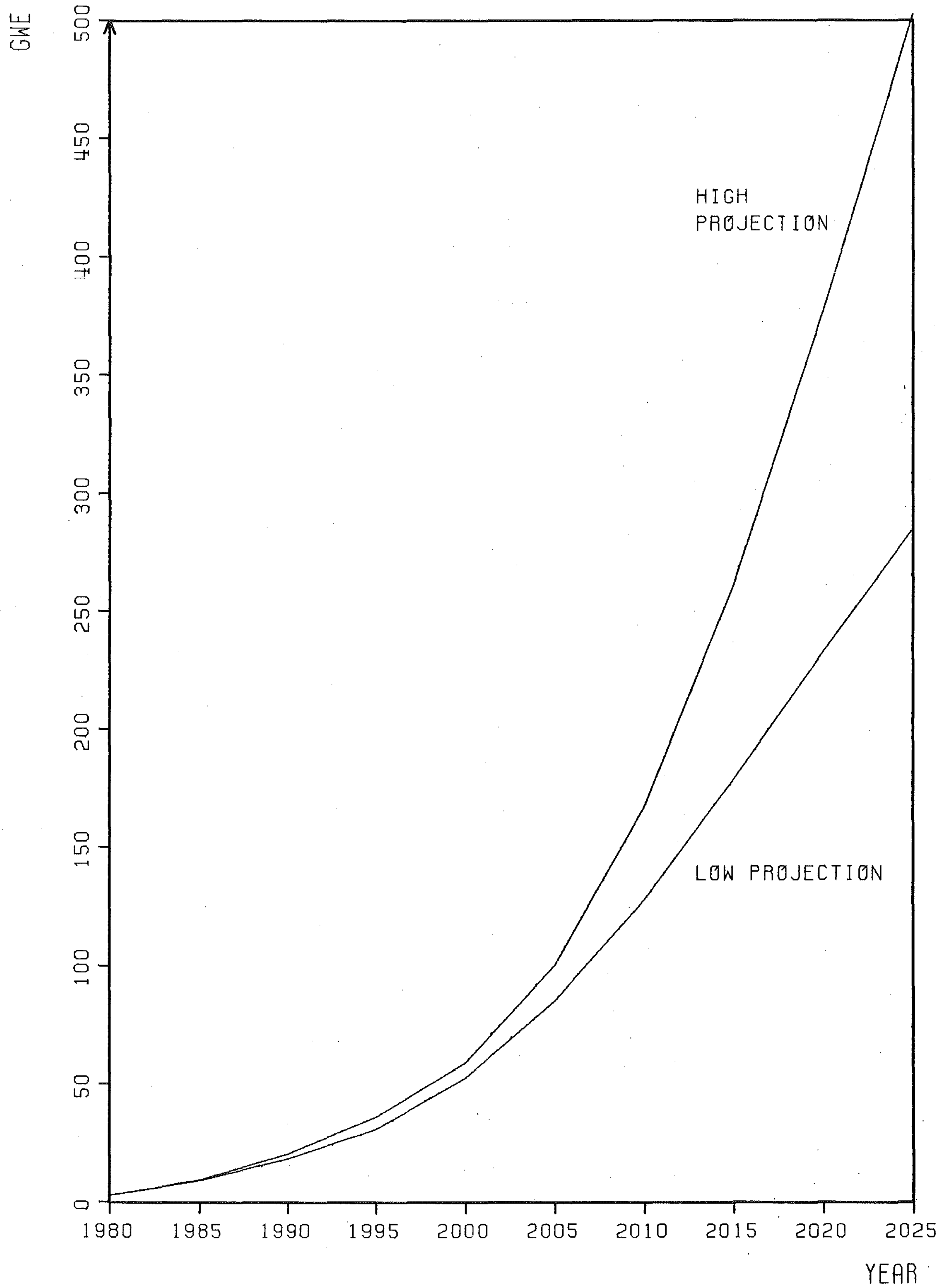
FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	0.2	0.3	0.9	1.6	2.3	2.7	3.6	4.6	6.0	7.1
IN 1000 TONNES CUMULATED	0.5	1.6	4.8	11.0	20.6	32.9	48.6	69.1	95.9	128.7
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	0.2	0.3	0.9	1.6	2.2	2.4	3.0	4.2	5.5	6.2
IN 1000 TONNES CUMULATED	0.5	1.6	4.8	11.0	20.4	31.1	44.1	62.3	86.5	114.9
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	0.0	7.2	9.5	33.6	54.9	79.9	87.5	128.5	165.5	229.0
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	0.0	5.7	7.6	27.4	45.0	65.6	71.8	105.6	136.2	188.5
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.1	0.2
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.1	0.4	1.2	1.8	2.2	2.9
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	226.9	1170.8	362.9	489.1	715.5	1038.3
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.3	2.6	7.5	9.5	12.3	16.3
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.1	0.2	0.5	1.2	1.8	2.3	2.9	3.8	4.9	6.0
IN 1000 TONNES CUMULATED	0.2	1.0	2.9	7.2	14.7	25.0	37.9	54.6	76.4	103.7
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	31.3	58.1	170.9	244.9	318.8	353.2	510.5	636.4	870.4	993.4
IN 1000 TONNES HM CUMUL.	0.1	0.3	0.8	1.8	3.2	5.0	7.0	9.9	13.6	18.3
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	29.8	194.0	292.5	360.8	462.0	612.3
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.4	1.8	3.4	5.4	8.1
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

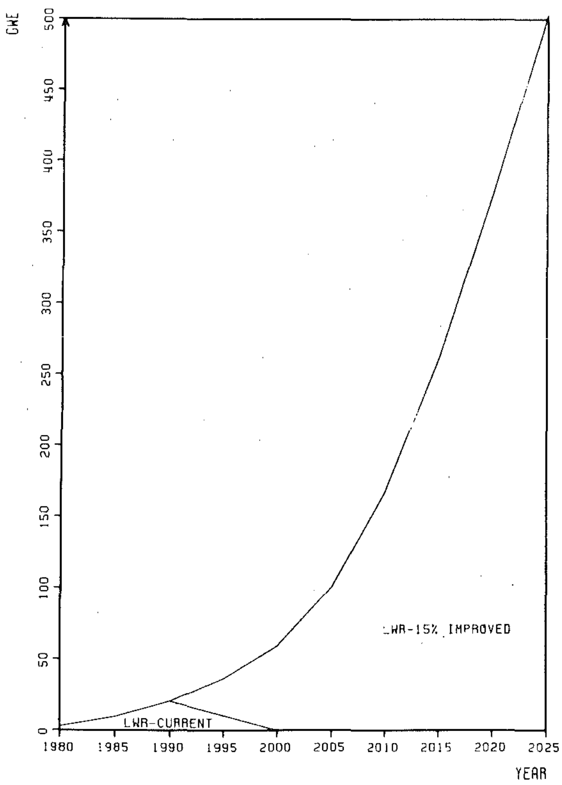
SCENARIO AFRICA & ME LOW 52 HWR-TH/PU 080981 CODE SOPKA

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	27.1	245.6	572.2	389.8	491.4	694.4
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.1	1.4	4.2	6.2	8.6	12.1
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	22.7	158.2	287.9	353.7	449.8
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.1	0.5	1.6	3.2	5.2
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	0.0	36.8	58.0	140.6	210.6	312.7	516.5	731.8	932.8	1263.6
IN 1000 TONNES HM CUMUL.	0.0	0.1	0.3	0.9	1.7	3.0	5.1	8.3	12.5	18.2
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	0.0	36.8	58.0	140.6	183.5	38.0	-246.4	45.9	76.4	102.3
IN 1000 TONNES HM CUMUL.	0.0	0.1	0.3	0.9	1.6	1.6	0.2	0.3	0.4	0.5
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	6.3	32.4	8.2	11.3	17.1
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.3
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	0.0	0.6	2.1	5.8	12.5	21.9	32.1	42.6	55.1	73.1
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.8	4.6	3.1	4.0	5.3	7.3
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.9	9.4	33.3	50.4	72.5	102.4
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.8	4.6	3.1	4.0	5.3	7.3
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.9	9.4	33.3	50.4	72.5	102.4
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.8	4.5	3.1	3.9	5.3	7.2
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.8	9.0	32.7	49.6	71.5	101.1
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	-0.0	-0.0	0.0	-0.0	-0.0	-0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.2	0.4	1.0	1.7	2.4	2.9	4.0	5.2	6.9
IN TONNES CUMULATED	0.0	0.6	2.1	5.8	12.5	22.3	35.6	53.4	76.4	107.6
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	0.0	0.5	1.8	5.2	10.6	11.3	0.0	0.0	0.0	0.0
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.3	2.3	4.2	5.2	6.6
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.8	7.5	23.8	47.4	76.9
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.3	2.3	4.2	5.2	6.6
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.8	7.5	23.8	47.4	76.9
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.3	2.2	4.2	5.1	6.5
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.8	6.9	22.8	46.1	75.2
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.4	2.8	4.4	5.4	6.9
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	1.1	9.2	27.1	51.5	82.2

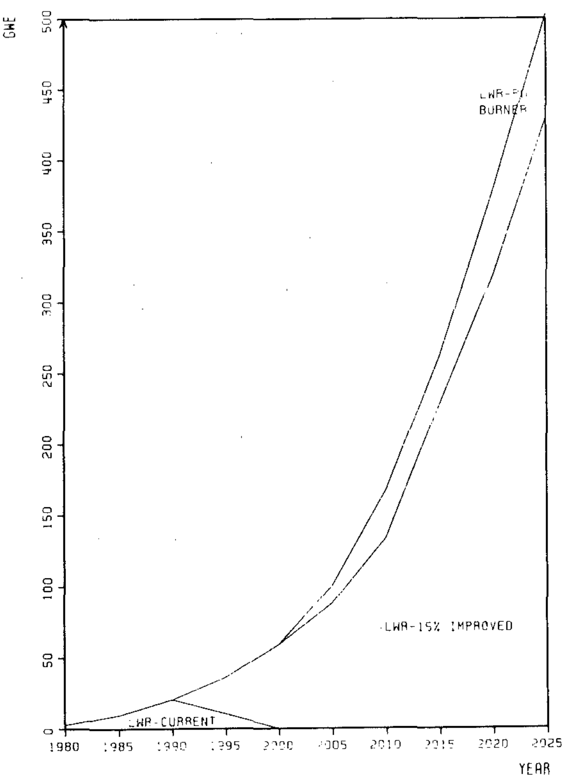
IV.3.6 Asia and Far East



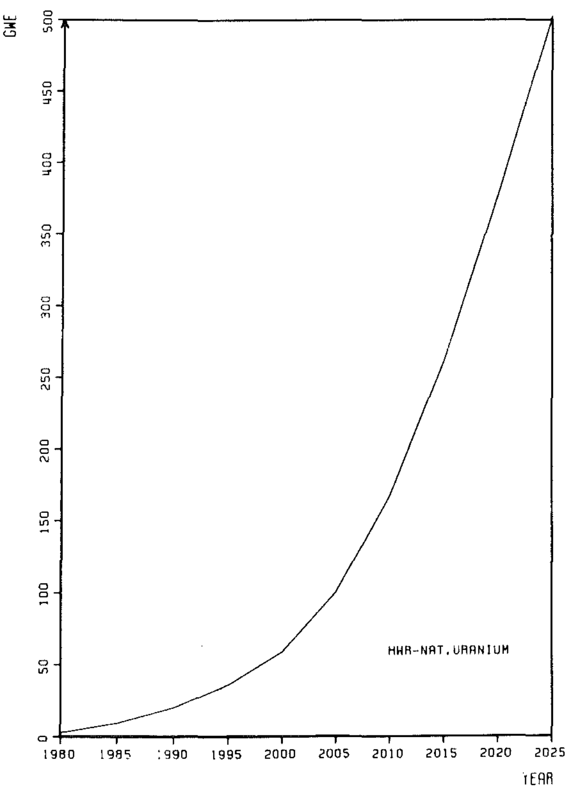
INSTALLED NUCLEAR CAPACITY FØR ASIA & FAR EAST



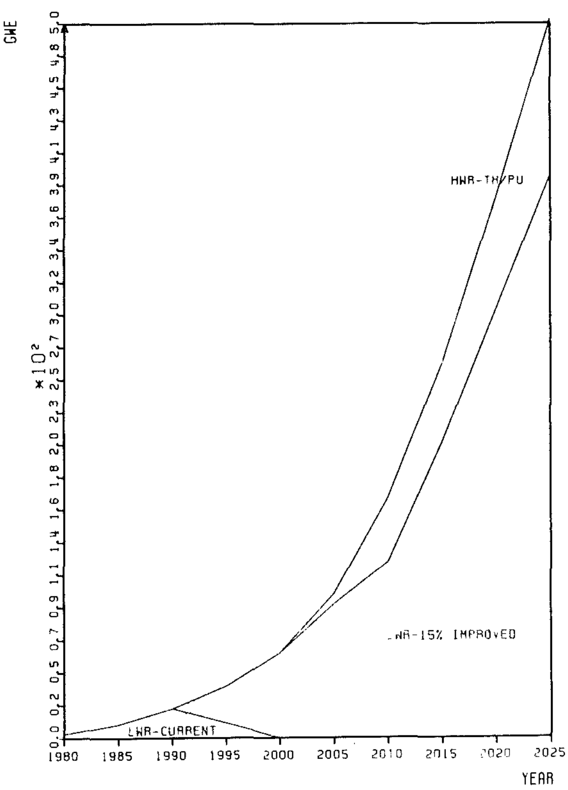
ASIA & FAR EAST LWR-OT-REF STRATEGY (HIGH CASE)



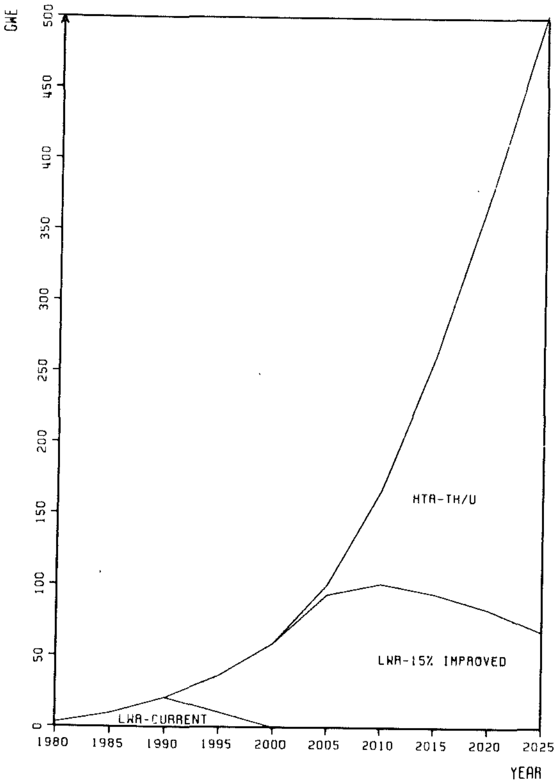
ASIA & FAR EAST LWR-PU-REF STRATEGY (HIGH CASE)



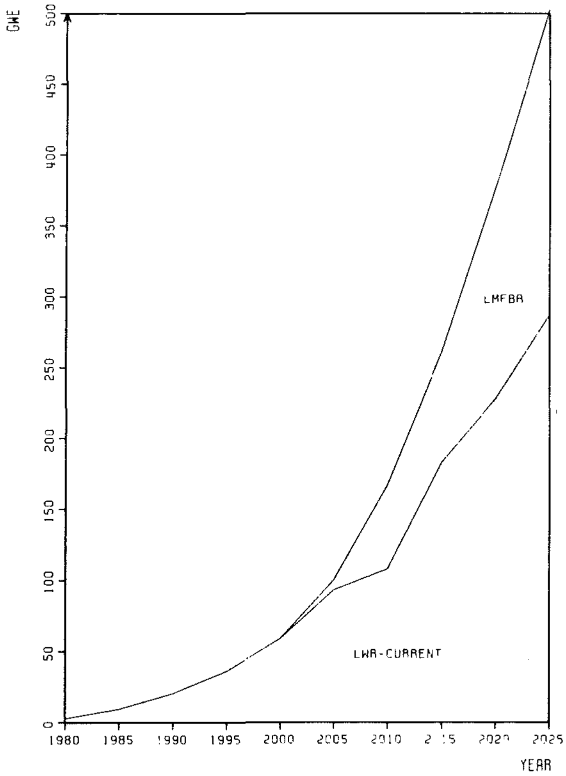
ASIA & FAR EAST HWR-OT-REF STRATEGY (HIGH CASE)



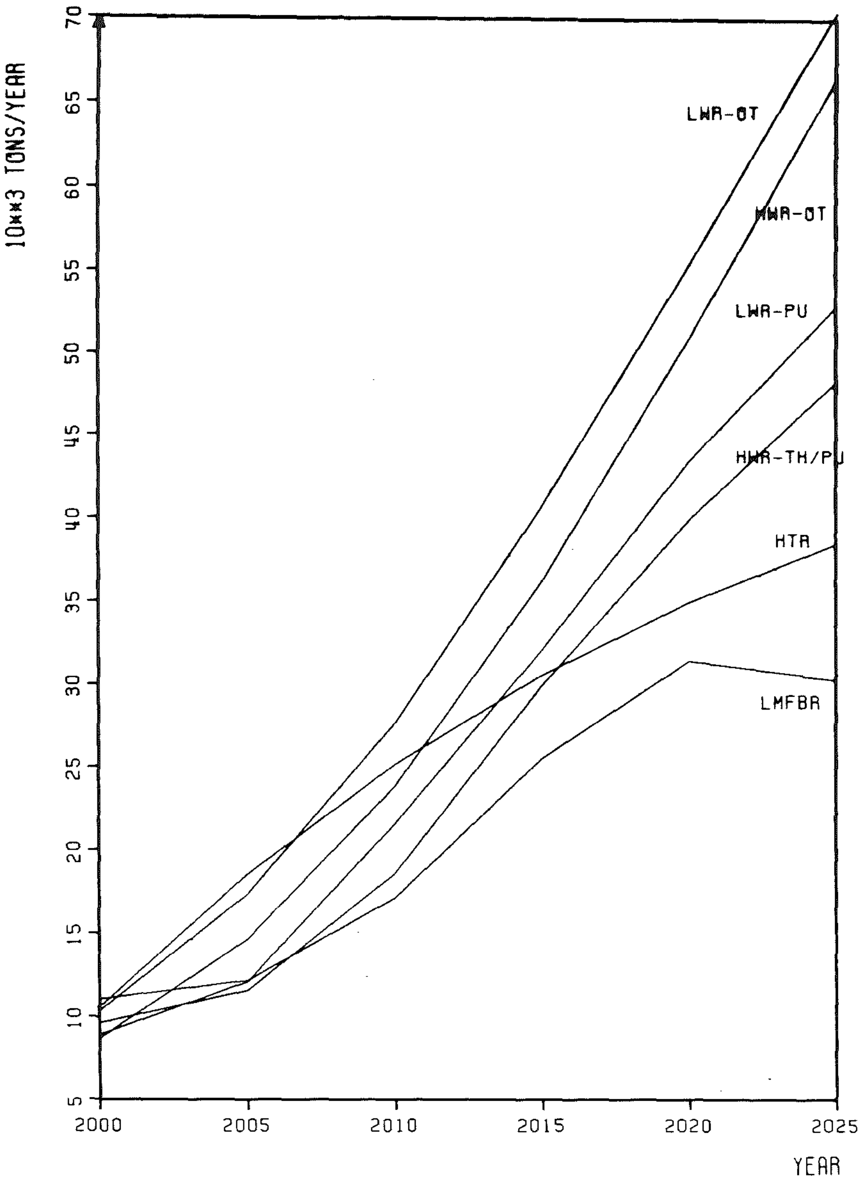
ASIA-F.EAST HIGH 52 HWR-TH/PU 080981



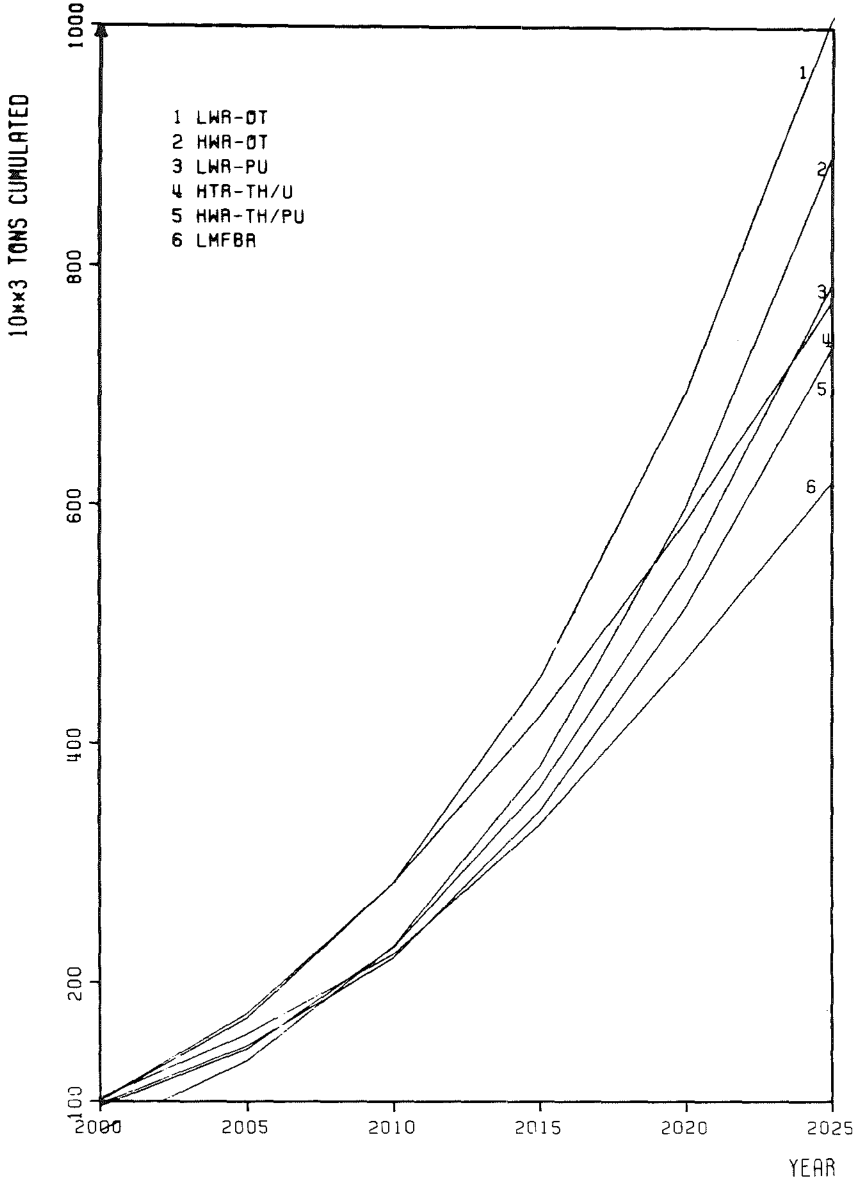
ASIA & FAR EAST
HTR-TH/U-REF STRATEGY (HIGH CASE)



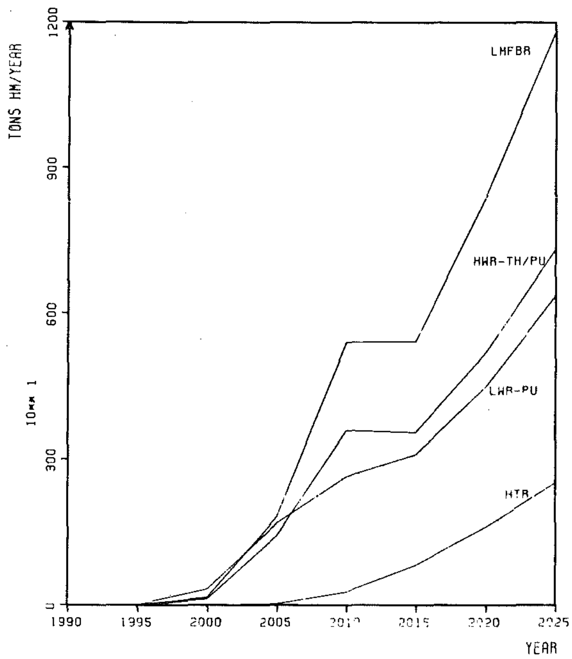
ASIA & FAR EAST LMFBR-REF STRATEGY (HIGH CASE)



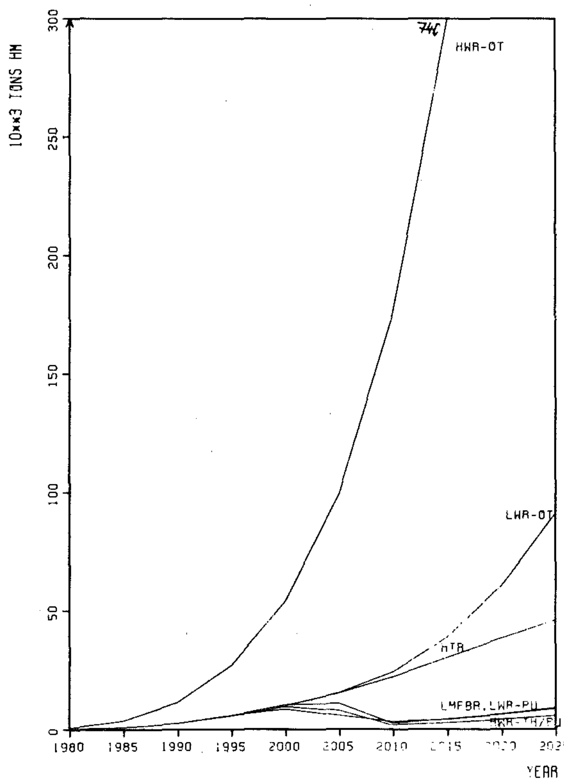
NATURAL URANIUM DEMAND FOR ASIA & FAR EAST
REFERENCE STRATEGIES (HIGH CASE)
(100 % U235 CREDIT ASSUMED FROM REPROCESSED SPENT FUEL)



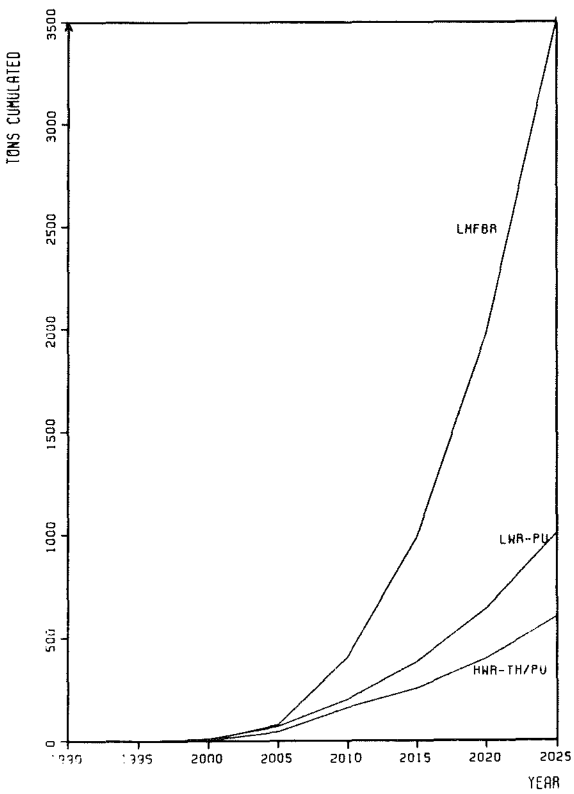
NATURAL URANIUM DEMAND FOR ASIA & FAR EAST
REF STRATEGY STRATEGIES (HIGH CASE)
(100 % U235 CREDIT ASSUMED FROM REPROCESSED SPENT FUEL)



ANNUAL REPROCESSING REQUIREMENTS FOR
ASIA & FAR EAST REFERENCE STRATEGIES (HIGH CASE)



AMOUNT OF UNREPROCESSED SPENT FUEL
IN ASIA & FAR EAST REFERENCE STRATEGIES (HIGH CASE)



FISSILE PLUTONIUM REPROCESSED
IN ASIA & FAR EAST REFERENCE STRATEGIES (HIGH CASE)

A. Light Water Reactor
Once-Through Reference Strategy
(high and low projection)

SCENARIO ASIA-F.EAST HIGH 11 LWR-OT-REF 10098 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	2.8	9.5	20.6	10.3	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	25.8	58.8	100.2	167.0	261.2	377.1	502.6
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	2.8	9.5	20.6	36.1	58.8	100.2	167.0	261.2	377.1	502.6

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	2.2	6.8	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	15.5	23.1	41.6	69.0	101.0	127.0	141.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	10.3	9.9	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	1.0	2.3	4.4	6.6	10.3	17.4	27.7	40.7	55.3	70.4
IN 1000 TONNES CUMULATED	4.7	13.1	30.2	57.9	100.5	170.2	283.3	454.7	695.1	1009.6
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	1.0	2.3	4.4	6.6	10.3	17.4	27.7	40.7	55.3	70.4
IN 1000 TONNES CUMULATED	4.7	13.1	30.2	57.9	100.5	170.2	283.3	454.7	695.1	1009.6
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	10.8	37.2	80.5	138.2	224.3	379.5	636.7	1013.3	1487.1	2012.9
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	8.6	29.6	64.0	111.5	182.5	310.5	522.5	833.0	1223.6	1657.0
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.6	1.5	3.0	4.9	7.9	13.3	21.5	32.4	45.0	58.3
IN 1000 TONNES CUMULATED	2.6	7.7	18.9	38.7	70.6	123.5	210.5	345.3	538.6	796.8
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	187.2	437.0	878.3	1106.6	1495.1	2516.6	3986.9	5787.5	7743.5	9748.0
IN 1000 TONNES HM CUMUL.	0.7	2.2	5.3	10.2	16.6	26.3	42.1	66.2	99.8	143.5
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO ASIA-F.EAST HIGH 11 LWR-OT-REF 10098 CODE SOPKA

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	58.2	204.3	460.0	743.5	934.4	1306.2	2183.2	3443.9	5029.2	6982.6
IN 1000 TONNES HM CUMUL.	0.3	0.9	2.6	5.9	10.1	15.4	24.3	38.8	60.6	91.2
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	58.2	204.3	460.0	743.5	934.4	1306.2	2183.2	3443.9	5029.2	6982.6
IN 1000 TONNES HM CUMUL.	0.3	0.9	2.6	5.9	10.1	15.4	24.3	38.8	60.6	91.2
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	1.6	5.8	16.5	38.2	68.5	111.2	183.1	300.1	476.5	722.6
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.4	1.3	2.9	5.1	7.1	10.7	17.8	28.1	41.1	56.4
IN TONNES CUMULATED	1.6	5.8	16.5	38.2	68.5	111.2	183.1	300.1	476.5	722.6
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	1.3	4.6	13.5	32.7	60.8	99.7	163.6	268.7	429.7	657.9
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO ASIA-F.EAST LOW 11 LWR-OT-REF 10098 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	2.8	9.3	18.4	9.2	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	21.6	52.6	85.1	127.8	178.6	232.6	285.0
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	2.8	9.3	18.4	30.8	52.6	85.1	127.8	178.6	232.6	285.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	2.2	6.6	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	12.4	22.2	32.7	44.9	57.4	63.1	64.8
LWR-OT IMPROVED 30 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	9.2	8.8	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	1.0	2.1	3.8	5.9	8.9	13.6	19.5	25.8	32.2	38.7
IN 1000 TONNES CUMULATED	4.6	12.5	27.5	51.9	88.8	145.2	228.1	341.5	486.6	664.1
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	1.0	2.1	3.8	5.9	8.9	13.6	19.5	25.8	32.2	38.7
IN 1000 TONNES CUMULATED	4.6	12.5	27.5	51.9	88.8	145.2	228.1	341.5	486.6	664.1
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	10.8	36.4	71.9	118.0	200.8	322.8	490.1	704.1	939.5	1181.1
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	8.6	28.9	57.1	95.2	163.4	264.0	401.9	578.4	772.4	971.5
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.6	1.4	2.6	4.3	6.9	10.7	15.6	21.1	26.8	32.5
IN 1000 TONNES CUMULATED	2.6	7.4	17.4	34.6	62.5	106.5	172.3	264.1	383.9	532.0
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	183.8	397.7	763.7	988.5	1272.2	1938.5	2760.8	3611.3	4450.4	5371.8
IN 1000 TONNES HM CUMUL.	0.7	2.2	4.9	9.2	14.8	22.6	34.2	50.1	70.2	94.6
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	58.2	200.3	415.0	647.7	831.4	1116.9	1694.7	2393.5	3151.8	4058.7
IN 1000 TONNES HM CUMUL.	0.3	0.9	2.4	5.4	9.1	13.7	20.8	31.5	45.9	64.3
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	58.2	200.3	415.0	647.7	831.4	1116.9	1694.7	2393.5	3151.8	4058.7
IN 1000 TONNES HM CUMUL.	0.3	0.9	2.4	5.4	9.1	13.7	20.8	31.5	45.9	64.3
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

DETAILS ON FISSILE MATERIAL

1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	1.6	5.8	15.6	34.8	61.5	98.5	156.6	242.1	358.2	506.0
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.4	1.3	2.7	4.4	6.3	9.1	13.8	19.5	25.7	32.6
IN TONNES CUMULATED	1.6	5.8	15.6	34.8	61.5	98.5	156.6	242.1	358.2	506.0
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	1.3	4.6	12.8	30.0	54.7	88.5	141.0	219.5	327.8	467.8

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

B. Light Water Reactor With
Plutonium/Uranium Recycle Strategy
(low and high projection)

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	2.8	9.3	18.4	9.2	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	21.6	52.6	74.5	99.6	150.4	191.1	236.7
LWR-PU-BURNER	0.0	0.0	0.0	0.0	0.0	10.6	28.2	28.2	41.5	48.3
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	2.8	9.3	18.4	30.8	52.6	85.1	127.8	178.6	232.6	285.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	2.2	6.6	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	12.4	22.2	22.1	27.3	57.4	49.8	58.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-PU-BURNER	0.0	0.0	0.0	0.0	0.0	10.6	17.6	0.0	13.3	6.8

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	9.2	8.8	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	1.0	2.1	3.8	5.9	8.0	10.9	16.2	21.4	26.7	31.4
IN 1000 TONNES CUMULATED	4.6	12.5	27.5	51.9	86.4	133.8	202.0	295.8	416.3	561.5
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	1.0	2.1	3.8	5.9	7.7	9.1	14.4	19.4	24.2	28.1
IN 1000 TONNES CUMULATED	4.6	12.5	27.5	51.9	84.8	123.1	182.5	266.1	374.0	502.7
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	10.8	36.4	71.9	118.0	200.8	283.1	384.9	598.9	784.6	1000.8
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	8.6	28.9	57.1	95.2	163.4	231.3	315.2	491.6	644.7	823.0
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.6	1.4	2.6	4.3	6.4	8.9	12.7	17.6	22.1	26.5
IN 1000 TONNES CUMULATED	2.6	7.4	17.4	34.6	61.4	99.7	153.5	229.2	328.6	450.3
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	183.8	397.7	763.7	988.5	1118.3	1522.8	2332.1	2989.7	3721.0	4338.4
IN 1000 TONNES HM CUMUL.	0.7	2.2	4.9	9.2	14.5	21.1	30.3	43.7	60.4	80.6
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	150.1	499.9	668.4	856.6	1080.1	1436.8
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.3	1.8	4.9	8.6	13.5	19.7

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	282.6	1313.5	1763.4	1804.2	2243.2	2912.5
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	1.4	8.0	16.8	25.8	37.0	51.6
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	132.8	460.8	640.2	806.7	1027.6
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.3	1.8	4.6	8.2	12.8
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	58.2	200.3	415.0	647.7	831.4	1189.2	1904.3	2633.0	3481.8	4457.4
IN 1000 TONNES HM CUMUL.	0.3	0.9	2.4	5.4	9.1	13.9	21.7	33.5	49.4	69.6
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	58.2	200.3	415.0	647.7	548.9	-317.5	-419.5	188.6	356.2	478.9
IN 1000 TONNES HM CUMUL.	0.3	0.9	2.4	5.4	7.7	5.4	2.6	2.3	3.2	4.0
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	60.4	99.7	-0.0	75.7	38.5
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.2	0.6	0.8	1.0	1.3

DETAILS ON FISSILE MATERIAL

1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	1.6	5.8	15.6	34.8	61.4	90.7	116.3	144.3	185.4	238.1
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	4.1	16.8	26.7	31.8	41.9	53.7
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	9.0	60.6	171.4	315.9	500.9	738.1
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	3.8	16.3	26.7	31.4	41.7	53.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	7.7	56.7	166.9	309.8	493.4	727.8
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	2.6	14.4	26.7	29.9	40.9	50.7
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	4.4	45.5	151.4	290.2	468.6	694.9
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	1.3	3.9	4.5	6.2	7.5	10.3
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.4	1.3	2.7	4.4	6.3	13.3	25.9	33.3	44.7	55.5
IN TONNES CUMULATED	1.6	5.8	15.6	34.8	61.5	108.9	207.4	357.3	555.0	807.3
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	1.3	4.6	12.8	30.0	45.6	34.8	7.7	0.0	0.0	0.0

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO ASIA-F.EAST HIGH 21 LWR-PU-REF 10981 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	2.8	9.5	20.6	10.3	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	25.8	58.8	87.7	133.5	227.7	318.1	429.4
LWR-PU-BURNER	0.0	0.0	0.0	0.0	0.0	12.5	33.5	33.5	59.0	73.2
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	2.8	9.5	20.6	36.1	58.8	100.2	167.0	261.2	377.1	502.6

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	2.2	6.8	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	15.5	23.1	29.1	48.0	101.0	101.5	126.7
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-PU-BURNER	0.0	0.0	0.0	0.0	0.0	12.5	21.0	0.0	25.5	14.2

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	10.3	9.9	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	1.0	2.3	4.4	6.6	9.3	14.2	23.7	34.7	47.2	58.1
IN 1000 TONNES CUMULATED	4.7	13.1	30.2	57.9	97.7	156.7	252.4	398.3	603.5	866.4
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	1.0	2.3	4.4	6.6	8.9	12.1	21.6	32.1	43.5	52.8
IN 1000 TONNES CUMULATED	4.7	13.1	30.2	57.9	95.7	144.4	229.6	362.7	549.1	785.5
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	10.8	37.2	80.5	138.2	224.3	332.8	511.8	888.4	1266.9	1739.7
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	8.6	29.6	64.0	111.5	182.5	272.0	419.5	730.0	1042.1	1431.8
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.6	1.5	3.0	4.9	7.4	11.1	18.0	27.8	38.2	48.8
IN 1000 TONNES CUMULATED	2.6	7.7	18.9	38.7	69.3	115.5	188.3	302.9	467.9	685.4
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	187.2	437.0	878.3	1106.6	1314.0	2023.0	3477.8	4909.3	6640.7	7989.3
IN 1000 TONNES HM CUMUL.	0.7	2.2	5.3	10.2	16.3	24.4	37.5	58.4	87.0	123.8
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	176.7	592.7	793.8	1153.9	1599.4	2365.4
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.3	2.1	5.8	10.4	17.4	27.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	332.7	1526.5	2094.8	2340.2	3418.0	4851.8
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	1.7	9.3	19.8	31.5	48.6	72.8
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	156.4	546.1	760.3	1078.9	1517.2
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.4	2.1	5.4	10.0	16.5
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	58.2	204.3	460.0	743.5	934.4	1391.3	2432.0	3728.3	5486.9	7580.3
IN 1000 TONNES HM CUMUL.	0.3	0.9	2.6	5.9	10.1	15.6	25.3	41.1	64.9	98.0
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	58.2	204.3	460.0	743.5	601.7	-362.7	-327.9	627.8	845.1	1130.5
IN 1000 TONNES HM CUMUL.	0.3	0.9	2.6	5.9	8.5	5.7	2.7	3.3	5.0	6.8
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	71.1	119.0	-0.0	144.8	80.7
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.2	0.7	1.0	1.3	1.9
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	1.6	5.8	16.5	38.2	68.5	102.1	135.4	184.1	264.7	375.0
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	4.8	19.9	31.7	41.5	61.3	86.5
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	10.6	71.5	203.0	382.9	641.2	1006.9
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	4.4	19.3	31.7	40.7	60.8	85.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	9.1	67.0	197.7	374.4	630.0	989.7
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	3.1	17.0	31.7	37.9	59.3	80.1
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	5.2	53.6	179.3	348.2	593.3	935.8
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	1.5	4.6	5.4	8.5	11.2	17.2
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.4	1.3	2.9	5.1	7.1	15.5	32.1	44.4	67.3	90.7
IN TONNES CUMULATED	1.6	5.8	16.5	38.2	68.5	123.4	243.2	436.6	719.5	1116.8
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	1.3	4.6	13.5	32.7	50.2	36.2	5.6	0.0	0.0	0.0
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

C. Uranium/Plutonium Fuelled LMFBR-Reference-Strategy (high and low projection)

SCENARIO ASIA-F.EAST HIGH 31 LMFBR-REF 100981 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	2.8	9.5	20.6	36.1	58.8	93.2	108.0	183.4	227.7	287.2
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	7.0	59.0	77.8	149.4	215.4
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	2.8	9.5	20.6	36.1	58.8	100.2	167.0	261.2	377.1	502.6

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	2.2	6.8	11.1	15.5	23.1	34.6	17.0	82.1	55.4	75.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	7.0	52.0	18.8	71.6	66.0
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	1.0	2.3	4.3	7.1	11.2	14.1	22.1	29.5	37.2	37.8
IN 1000 TONNES CUMULATED	4.7	13.1	29.7	58.2	104.2	167.2	259.1	387.5	554.7	740.5
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	1.0	2.3	4.3	7.1	11.0	12.2	17.1	25.6	31.5	30.3
IN 1000 TONNES CUMULATED	4.7	13.1	29.7	58.2	103.2	156.5	223.8	332.3	471.0	619.5
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	11.8	40.9	88.5	154.9	254.0	402.4	475.3	827.7	1065.3	1387.0
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	7.8	27.0	58.4	102.2	167.6	265.6	313.8	546.4	703.2	915.6
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.6	1.5	2.8	4.8	7.6	10.3	14.7	21.2	26.5	29.1
IN 1000 TONNES CUMULATED	2.6	7.7	18.5	37.4	68.3	113.2	175.5	265.2	384.4	523.8
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	187.2	437.0	800.0	1330.9	2117.7	2706.3	4188.0	5678.5	7150.6	7397.7
IN 1000 TONNES HM CUMUL.	0.7	2.2	5.3	10.5	19.0	31.3	47.6	72.7	104.5	141.8
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	97.0	932.0	2047.4	3349.4	5441.4	8585.2
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.1	2.1	10.0	22.7	44.8	78.6

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	158.9	1677.8	4214.7	3333.7	4758.8	6184.2
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.8	9.2	30.3	46.9	70.7	101.6
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	133.8	1198.7	2093.3	3655.8	5653.7
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.3	3.7	11.9	26.3	49.5
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	58.2	204.3	460.0	824.5	1360.8	2323.7	4082.1	6474.0	9589.9	13033.2
IN 1000 TONNES HM CUMUL.	0.3	0.9	2.6	5.8	11.3	20.5	36.5	63.1	103.4	160.1
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	58.2	204.3	460.0	824.5	1201.9	481.2	-1560.4	964.0	859.4	904.4
IN 1000 TONNES HM CUMUL.	0.3	0.9	2.6	5.8	10.5	10.9	1.9	2.8	3.9	4.9
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	30.9	229.1	83.1	315.9	291.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.1	0.7	1.5	2.5	4.0
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	1.6	5.8	16.5	37.0	72.1	130.7	232.8	407.1	675.3	1055.7
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	2.9	31.8	95.1	144.8	248.5	380.3
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	5.1	77.9	405.4	988.7	1973.6	3520.2
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	2.9	31.8	95.1	144.8	248.5	380.3
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	5.1	77.9	405.4	988.7	1973.6	3520.2
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	2.4	28.0	93.7	139.5	243.6	369.3
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	3.6	64.1	379.5	944.5	1904.1	3408.4
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.4	1.3	2.9	5.3	8.7	23.5	100.6	154.9	268.5	393.4
IN TONNES CUMULATED	1.6	5.8	16.5	37.0	72.1	152.5	463.1	1102.7	2162.0	3817.6
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	1.4	5.1	14.7	33.6	61.3	60.4	0.0	0.0	0.0	0.0
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO ASIA-F.EAST LOW 31 LMFBR-REF 100981 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	2.8	9.3	18.4	30.8	52.6	80.1	83.8	111.6	122.5	127.6
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	5.0	44.0	67.0	110.1	157.4
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	2.8	9.3	18.4	30.8	52.6	85.1	127.8	178.6	232.6	285.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	2.2	6.6	9.1	12.4	22.2	27.7	5.9	34.4	20.0	17.5
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FBR OX. FUELED (CURRENT)	0.0	0.0	0.0	0.0	0.0	5.0	39.0	23.0	43.1	47.3
FBR CARBIDE FUELED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	1.0	2.1	3.7	6.3	9.7	11.3	14.3	16.6	17.6	16.2
IN 1000 TONNES CUMULATED	4.6	12.5	27.0	52.0	92.1	144.3	208.8	285.6	371.0	455.2
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	1.0	2.1	3.7	6.3	9.6	9.9	10.4	13.0	14.1	12.2
IN 1000 TONNES CUMULATED	4.6	12.5	27.0	52.0	91.5	136.4	181.5	240.6	308.6	373.0
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	11.8	40.0	79.1	132.1	227.4	346.2	371.3	518.7	604.5	679.5
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	7.8	26.4	52.2	87.2	150.1	228.5	245.1	342.4	399.1	448.6
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.6	1.4	2.5	4.2	6.7	8.5	10.0	12.2	13.1	12.7
IN 1000 TONNES CUMULATED	2.6	7.4	17.0	33.5	60.6	98.5	144.7	200.4	263.8	328.5
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	183.8	397.7	690.0	1177.7	1839.0	2175.9	2744.2	3214.3	3444.8	3250.3
IN 1000 TONNES HM CUMUL.	0.7	2.2	4.8	9.4	16.8	27.2	39.1	54.2	70.9	87.8
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	69.3	691.8	1652.1	2627.9	3991.9	5803.1
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.1	1.5	7.6	18.0	34.5	58.6

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	113.5	1241.3	3356.3	2914.3	2876.1	3219.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.6	6.8	23.6	38.1	52.5	68.6
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	95.5	892.3	1733.5	2794.1	4141.3
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.2	2.7	9.3	20.6	37.9
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	58.2	200.3	415.0	707.6	1210.5	1983.9	3168.7	4573.5	6113.7	7680.6
IN 1000 TONNES HM CUMUL.	0.3	0.9	2.4	5.2	10.1	18.0	31.0	50.5	77.3	111.9
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	58.2	200.3	415.0	707.6	1096.9	625.0	-1252.0	-175.8	253.4	111.7
IN 1000 TONNES HM CUMUL.	0.3	0.9	2.4	5.2	9.5	11.0	4.2	1.9	2.2	2.4
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	22.0	172.0	101.5	190.1	208.5
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.1	0.5	1.2	2.0	2.9
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	1.6	5.8	15.6	33.6	64.3	115.2	197.4	325.1	505.1	740.6
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	2.1	23.5	74.7	117.0	182.6	263.9
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	3.6	57.0	307.4	780.4	1528.2	2636.1
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	2.1	23.5	74.7	117.0	182.6	263.9
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	3.6	57.0	307.4	780.4	1528.2	2636.1
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	1.7	20.6	73.0	113.8	179.1	258.4
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	2.5	46.8	286.1	746.3	1477.3	2561.7
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.4	1.3	2.7	4.5	7.7	18.8	75.8	124.9	194.7	276.0
IN TONNES CUMULATED	1.6	5.8	15.6	33.6	64.4	130.8	367.7	870.3	1669.9	2847.3
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	1.4	5.0	14.0	30.6	55.7	62.2	16.6	0.0	0.0	0.0
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

D. Heavy Water Reactor
Once-Through Reference Strategy
(high and low projection)

SCENARIO ASIA-F.EAST HIGH 41 HWR-OT-REF 100 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	1.0	1.0	1.0	1.0	0.6	0.6	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	1.8	8.5	19.6	35.1	58.2	99.6	167.0	261.2	377.1	502.6
HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	2.8	9.5	20.6	36.1	58.8	100.2	167.0	261.2	377.1	502.6

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	1.6	6.8	11.1	15.5	23.1	41.6	69.0	101.0	127.0	141.0
HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DURING THE PREVIOUS 5-YEAR PERIOD HWR-OT NAT. URAN. RETROFITTED TO HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	0.6	1.6	3.1	5.2	8.7	14.7	23.9	36.2	50.9	66.4
IN 1000 TONNES CUMULATED	2.9	8.3	20.0	40.9	75.8	134.2	230.7	381.0	598.8	892.0
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	0.6	1.6	3.1	5.2	8.7	14.7	23.9	36.2	50.9	66.4
IN 1000 TONNES CUMULATED	2.9	8.3	20.0	40.9	75.8	134.2	230.7	381.0	598.8	892.0
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	10.8	36.0	77.1	134.5	220.2	374.5	630.4	1005.0	1476.2	1999.2
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	9.4	34.5	75.7	133.1	218.7	373.1	628.9	1003.6	1474.7	1997.7
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	1038.1	1743.7	2488.2	3759.8	6734.4	11154.3	16298.4	20154.4	22486.6	23925.2
IN 1000 TONNES D2O CUMUL.	2.6	8.8	18.5	32.6	55.3	94.7	156.6	240.8	343.0	455.9
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.9	1.4	1.9	2.4	2.8	3.1	3.2	3.2	3.2	3.2
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	351.1	1255.8	2694.9	4723.2	7855.0	13376.8	22113.8	34089.3	48550.7	64049.3
IN 1000 TONNES HM CUMUL.	1.4	5.4	15.3	33.9	65.4	118.6	207.4	348.0	554.7	836.2
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO ASIA-F.EAST HIGH 41 HWR-OT-REF 100 CODE SOPKA

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	208.3	941.6	2215.2	4020.0	6692.5	11395.8	19132.2	30118.2	43851.6	58976.1
IN 1000 TONNES HM CUMUL.	0.7	3.6	11.5	27.1	53.9	99.1	175.4	298.5	483.5	740.6
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	208.3	941.6	2215.2	4020.0	6692.5	11395.8	19132.2	30118.2	43851.6	58976.1
IN 1000 TONNES HM CUMUL.	0.7	3.6	11.5	27.1	53.9	99.1	175.4	298.5	483.5	740.6
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

DETAILS ON FISSILE MATERIAL

1. PLUTONIUM

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
PLUTONIUM IN SYSTEM										
IN TONNES	2.5	10.7	32.5	75.2	148.2	270.9	478.1	812.3	1314.3	2012.2
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.6	2.6	6.1	11.0	18.2	30.9	51.9	81.7	119.0	160.0
IN TONNES CUMULATED	2.5	10.7	32.5	75.2	148.2	270.9	478.1	812.3	1314.3	2012.2
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	1.9	8.4	26.5	63.7	128.8	238.3	423.0	723.8	1182.3	1830.3

2. URANIUM-233

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO ASIA-F.EAST LOW 41 HWR-OT-REF 100 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	1.0	1.0	1.0	1.0	0.6	0.6	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	1.8	8.3	17.4	29.8	52.0	84.5	127.8	178.6	232.6	285.0
HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	2.8	9.3	18.4	30.8	52.6	85.1	127.8	178.6	232.6	285.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	1.6	6.6	9.1	12.4	22.2	32.7	44.9	57.4	63.1	64.8
HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DURING THE PREVIOUS 5-YEAR PERIOD HWR-OT NAT. URAN. RETROFITTED TO HWR-OT LOW ENRICHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	0.6	1.5	2.7	4.6	7.6	12.0	17.5	23.9	30.5	37.0
IN 1000 TONNES CUMULATED	2.9	8.1	18.5	36.8	67.2	116.2	190.0	293.6	429.7	598.6
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	0.6	1.5	2.7	4.6	7.6	12.0	17.5	23.9	30.5	37.0
IN 1000 TONNES CUMULATED	2.9	8.1	18.5	36.8	67.2	116.2	190.0	293.6	429.7	598.6
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	10.8	35.2	69.0	114.8	197.2	318.5	485.0	697.8	931.9	1172.2
WITH ALL POTIENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	9.4	33.8	67.5	113.4	195.7	317.1	483.5	696.4	930.5	1170.7
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	1007.8	1439.7	2002.6	3583.4	5341.2	7394.6	9406.6	9894.3	10170.2	11551.6
IN 1000 TONNES D2O CUMUL.	2.6	8.2	16.2	28.3	48.6	78.0	117.1	162.3	211.2	262.4
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES CUMULATED	0.9	1.4	1.9	2.4	2.8	3.1	3.2	3.2	3.2	3.2
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	347.9	1199.4	2374.2	4054.9	6948.7	11130.9	16587.2	22910.7	29554.0	36035.6
IN 1000 TONNES HM CUMUL.	1.3	5.2	14.2	30.3	57.8	103.1	172.4	271.2	402.4	566.4
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO ASIA-F.EAST LOW 41 HWR-OT-REF 100 CODE SOPKA

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	208.3	920.9	1983.7	3430.8	5953.4	9718.4	14795.8	20845.5	27371.3	33790.9
IN 1000 TONNES HM CUMUL.	0.7	3.5	10.8	24.3	47.8	87.0	148.3	237.4	357.9	510.9
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	208.3	920.9	1983.7	3430.8	5953.4	9718.4	14795.8	20845.5	27371.3	33790.9
IN 1000 TONNES HM CUMUL.	0.7	3.5	10.8	24.3	47.8	87.0	148.3	237.4	357.9	510.9
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	2.5	10.5	30.7	67.8	131.8	238.2	404.6	646.7	974.1	1389.6
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.6	2.6	5.5	9.4	16.2	26.4	40.1	56.6	74.3	91.8
IN TONNES CUMULATED	2.5	10.5	30.7	67.8	131.8	238.2	404.6	646.7	974.1	1389.6
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	1.9	8.3	25.2	57.8	114.7	209.9	360.7	583.3	889.0	1282.4
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

E. Thorium Strategies
(high projection)

SCENARIO ASIA-F.EAST HIGH 51 HTGR-T/U-REF 100 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	2.8	9.5	20.6	10.3	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	25.8	58.8	93.2	101.0	94.2	83.1	67.7
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	7.0	66.0	167.0	294.0	434.9
TOTAL	2.8	9.5	20.6	36.1	58.8	100.2	167.0	261.2	377.1	502.6

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	2.2	6.8	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	15.5	23.1	34.6	10.0	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	7.0	59.0	101.0	127.0	141.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	10.3	9.9	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	1.0	2.3	4.4	6.6	10.5	18.6	25.2	30.6	35.0	38.5
IN 1000 TONNES CUMULATED	4.7	13.1	30.2	57.9	100.9	173.7	283.3	422.9	587.0	770.9
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	1.0	2.3	4.4	6.6	10.5	18.6	25.2	30.6	35.0	38.5
IN 1000 TONNES CUMULATED	4.7	13.1	30.2	57.9	100.9	173.7	283.3	422.9	587.0	770.9
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	10.8	37.2	80.5	138.2	224.3	364.1	491.2	645.2	838.8	1053.8
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	8.6	29.6	64.0	111.5	182.5	297.0	395.5	511.6	657.6	819.8
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.1	0.6	1.1	1.5	1.8	1.9
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.2	1.7	5.9	12.4	20.6	29.8
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.6	1.5	3.0	4.9	8.6	18.6	27.3	34.6	41.0	46.5
IN 1000 TONNES CUMULATED	2.6	7.7	18.9	38.7	71.7	134.6	245.5	397.9	585.6	803.5
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	187.2	437.0	878.3	1106.6	1393.9	1556.9	1523.3	1412.6	1236.2	987.7
IN 1000 TONNES HM CUMUL.	0.7	2.2	5.3	10.2	16.4	24.1	32.0	39.3	45.9	51.5
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	63.5	588.2	1414.0	2411.5	3495.8	4627.9
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.1	1.3	5.9	15.2	29.9	50.1
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO ASIA-F.EAST HIGH 51 HTGR-T/U-REF 100 CODE SOPKA

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	26.1	267.5	824.0	1605.7	2518.8
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.1	0.8	3.5	9.6	19.9
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	58.2	204.3	460.0	743.5	934.4	1264.6	1780.5	2353.4	3033.7	3960.5
IN 1000 TONNES HM CUMUL.	0.3	0.9	2.6	5.9	10.1	15.3	23.0	33.8	48.0	66.0
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	58.2	204.3	460.0	743.5	934.4	1226.6	1413.0	1358.2	1212.8	1202.8
IN 1000 TONNES HM CUMUL.	0.3	0.9	2.6	5.9	10.1	15.2	21.9	29.3	36.4	43.0
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	11.9	100.0	171.2	215.3	238.9
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.0	2.0	3.1
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	1.6	5.8	16.5	38.2	68.5	109.6	164.2	222.9	278.8	329.0
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.4	1.3	2.9	5.1	7.1	10.0	11.5	11.1	9.9	9.2
IN TONNES CUMULATED	1.6	5.8	16.5	38.2	68.5	109.6	164.2	222.9	278.8	329.0
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	1.3	4.6	13.5	32.7	60.8	98.6	150.0	208.3	265.4	317.2
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO ASIA-F.EAST HIGH 52 HWR-TH/PU 080981 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	2.8	9.5	20.6	10.3	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	25.8	58.8	93.2	122.4	205.7	298.6	393.2
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	7.0	44.6	55.5	78.5	109.4
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	2.8	9.5	20.6	36.1	58.8	100.2	167.0	261.2	377.1	502.6

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	2.2	6.8	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	15.5	23.1	34.6	31.4	90.0	104.0	110.1
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	7.0	37.6	11.0	23.0	30.9
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	10.3	9.9	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	1.0	2.3	4.4	6.6	9.8	13.5	21.5	32.3	43.5	53.4
IN 1000 TONNES CUMULATED	4.7	13.1	30.2	57.9	98.9	156.9	245.4	380.1	569.8	811.8
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	1.0	2.3	4.4	6.6	9.6	11.6	18.6	30.0	39.9	48.2
IN 1000 TONNES CUMULATED	4.7	13.1	30.2	57.9	98.2	146.6	220.7	343.8	515.4	731.8
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	10.8	37.2	80.5	138.2	224.3	353.4	470.5	806.2	1194.2	1604.8
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	8.6	29.6	64.0	111.5	182.5	289.0	385.5	662.3	982.1	1320.6
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.1	0.8	0.7	0.6	0.9	1.4
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.2	2.2	6.0	9.1	12.7	18.2
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	1058.7	5732.7	1997.8	3898.6	5266.8	8509.9
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	1.3	12.4	36.8	49.3	70.7	101.3
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.6	1.5	3.0	4.9	7.6	11.0	16.4	25.6	35.5	44.7
IN 1000 TONNES CUMULATED	2.6	7.7	18.9	38.7	69.9	116.4	184.9	289.9	442.6	643.2
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	187.2	437.0	878.3	1106.6	1393.9	1867.1	3151.0	4611.1	6103.5	7350.9
IN 1000 TONNES HM CUMUL.	0.7	2.2	5.3	10.2	16.4	24.6	36.4	55.6	82.3	116.1
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	139.2	940.6	1452.3	1995.1	2788.8	4039.7
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.2	2.1	8.8	17.1	28.9	45.4
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO ASIA-F.EAST HIGH 52 HWR-TH/PU 080981 CODE SOPKA

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	126.6	1322.4	2825.9	2131.9	3280.6	4640.4
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.6	7.2	21.4	32.0	48.4	71.6
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	105.8	765.3	1422.7	1913.9	2681.7
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.3	2.4	7.9	16.3	27.7
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	58.2	204.3	460.0	743.5	934.4	1362.1	2581.0	4155.3	5990.1	8328.3
IN 1000 TONNES HM CUMUL.	0.3	0.9	2.6	5.9	10.1	15.5	25.5	42.8	68.9	105.2
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	58.2	204.3	460.0	743.5	807.8	-95.8	-1169.0	554.2	698.3	875.6
IN 1000 TONNES HM CUMUL.	0.3	0.9	2.6	5.9	9.5	7.9	1.2	1.8	2.8	3.8
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	29.6	158.9	46.4	97.3	130.7
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.1	0.5	1.1	1.4	2.0
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	1.6	5.8	16.5	38.2	68.5	108.1	156.7	220.1	317.2	453.5
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	3.9	22.4	16.0	25.1	34.6	52.5
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	4.0	44.9	162.4	255.5	398.4	600.1
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	3.9	22.4	16.0	25.1	34.6	52.5
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	4.0	44.9	162.4	255.5	398.4	600.1
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	3.8	21.9	15.9	24.9	34.3	52.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	3.7	42.9	159.4	251.4	392.7	591.8
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	-0.0	-0.0	0.0	-0.0	-0.0	-0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.4	1.3	2.9	5.1	7.1	10.2	14.8	24.0	35.3	48.4
IN TONNES CUMULATED	1.6	5.8	16.5	38.2	68.5	110.1	173.4	272.6	424.5	636.3
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	1.4	5.1	14.7	35.0	60.0	58.2	0.0	0.0	0.0	0.0
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	1.6	11.2	20.9	28.1	39.4
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	3.9	35.8	116.1	238.5	407.1
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	1.6	11.2	20.9	28.1	39.4
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	3.9	35.8	116.1	238.5	407.1
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	1.4	10.5	20.7	27.6	38.7
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	3.5	33.2	110.9	231.6	397.4
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	2.0	13.6	21.7	29.7	41.5
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	5.0	44.1	132.3	260.6	438.4

Thorium Strategies
(low projection)

SCENARIO ASIA-F.EAST LOW 51 HTGR-T/U-REF 100 CODE SOPKA

NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	2.8	9.3	18.4	9.2	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	21.6	52.6	80.1	83.8	77.2	68.1	55.8
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	5.0	44.0	101.4	164.5	229.2
TOTAL	2.8	9.3	18.4	30.8	52.6	85.1	127.8	178.6	232.6	285.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	2.2	6.6	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	12.4	22.2	27.7	5.9	0.0	0.0	0.0
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	5.0	39.0	57.4	63.1	64.8

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	9.2	8.8	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	1.0	2.1	3.8	5.9	9.0	14.4	17.5	19.3	20.4	21.8
IN 1000 TONNES CUMULATED	4.6	12.5	27.5	51.9	89.1	147.5	227.3	319.3	418.4	524.1
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	1.0	2.1	3.8	5.9	9.0	14.4	17.5	19.3	20.4	21.8
IN 1000 TONNES CUMULATED	4.6	12.5	27.5	51.9	89.1	147.5	227.3	319.3	418.4	524.1
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	10.8	36.4	71.9	118.0	200.8	311.8	393.1	480.6	576.8	675.6
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	8.6	28.9	57.1	95.2	163.4	254.4	317.2	383.2	455.8	530.3
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.4	0.7	0.8	0.8	1.0
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.1	1.1	3.7	7.3	11.3	15.7
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.6	1.4	2.6	4.3	7.3	14.2	18.5	21.1	23.1	25.9
IN 1000 TONNES CUMULATED	2.6	7.4	17.4	34.6	63.3	113.9	194.0	292.6	403.2	524.8
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	183.8	397.7	763.7	988.5	1199.8	1298.5	1262.2	1157.8	1013.7	808.4
IN 1000 TONNES HM CUMUL.	0.7	2.2	4.9	9.2	14.7	21.2	27.7	33.7	39.2	43.7
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	45.4	391.6	852.4	1337.0	1827.9	2405.4
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.1	0.9	3.8	9.2	17.1	27.6
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SCENARIO ASIA-F.EAST LOW 51 HTGR-T/U-REF 100 CODE SOPKA

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	18.6	179.3	512.3	922.6	1356.6
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.5	2.3	5.9	11.6
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	58.2	200.3	415.0	647.7	831.4	1087.2	1425.7	1725.6	2023.5	2451.7
IN 1000 TONNES HM CUMUL.	0.3	0.9	2.4	5.4	9.1	13.6	20.0	28.3	38.3	49.9
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	58.2	200.3	415.0	647.7	831.4	1060.1	1180.3	1116.1	993.9	985.3
IN 1000 TONNES HM CUMUL.	0.3	0.9	2.4	5.4	9.1	13.5	19.3	25.4	31.3	36.6
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	8.5	66.1	97.3	107.0	109.8
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.6	1.1	1.7
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	1.6	5.8	15.6	34.8	61.5	97.4	143.8	192.7	238.7	279.7
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.4	1.3	2.7	4.4	6.3	8.7	9.6	9.1	8.1	7.5
IN TONNES CUMULATED	1.6	5.8	15.6	34.8	61.5	97.4	143.8	192.7	238.7	279.7
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	1.3	4.6	12.8	30.0	54.7	87.7	131.8	180.7	227.6	270.1
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLEAR POWER IN OPERATION (CAPACITY FIGURES IN GWE)

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	2.8	9.3	18.4	9.2	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	21.6	52.6	80.1	88.5	133.4	175.2	212.4
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	5.0	39.3	45.2	57.4	72.6
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	2.8	9.3	18.4	30.8	52.6	85.1	127.8	178.6	232.6	285.0

ADDITIONS DURING THE PREVIOUS 5-YEAR PERIOD

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
LWR-OT CURRENT (PWR/BWR=2/1)	2.2	6.6	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	12.4	22.2	27.7	10.6	51.4	51.0	49.6
HWR-OT NAT. URANIUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HWR THORIUM/PLUTONIUM CYCLE	0.0	0.0	0.0	0.0	0.0	5.0	34.3	6.0	12.1	15.2
HTR GAS COOLED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RETROFITTING

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
DURING THE PREVIOUS 5-YEAR PERIOD LWR-OT CURRENT RETROFITTED TO LWR-OT IMPROVED 15 % (PWR)	0.0	0.0	0.0	9.2	8.8	0.0	0.0	0.0	0.0	0.0

FUEL CYCLE REQUIREMENTS AND ARISINGS

	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
NATURAL URANIUM DEMAND										
WITHOUT U235 CREDIT										
IN 1000 TONNES/YEAR	1.0	2.1	3.8	5.9	8.5	10.2	14.4	19.5	24.2	28.3
IN 1000 TONNES CUMULATED	4.6	12.5	27.5	51.9	87.7	134.0	196.2	280.9	390.1	521.2
WITH U235 CREDIT										
IN 1000 TONNES/YEAR	1.0	2.1	3.8	5.9	8.4	8.1	12.2	17.8	21.8	25.2
IN 1000 TONNES CUMULATED	4.6	12.5	27.5	51.9	87.1	123.1	174.7	250.8	348.1	463.7
NATURAL URANIUM (COMMITTED)										
WITHOUT U235 CREDIT										
IN 1000 TONNES CUMULATED	10.8	36.4	71.9	118.0	200.8	304.1	343.7	535.4	725.6	910.4
WITH ALL POTENTIAL U235 CREDIT										
IN 1000 TONNES CUMULATED	8.6	28.9	57.1	95.2	163.4	248.6	281.2	439.2	596.0	748.4
THORIUM DEMAND										
IN 1000 TONNES/YEAR	0.0	0.0	0.0	0.0	0.1	0.7	0.6	0.3	0.5	0.7
IN 1000 TONNES CUMULATED	0.0	0.0	0.0	0.0	0.2	1.8	5.1	7.3	9.2	12.0
DIFFERENT FUEL SERVICES										
HEAVY WATER										
IN TONNES D2O/YEAR	0.0	0.0	0.0	0.0	756.2	5220.0	1202.4	2175.4	2735.6	4133.9
IN 1000 TONNES D2O CUMUL.	0.0	0.0	0.0	0.0	0.9	10.2	31.7	39.0	50.7	66.2
SEPARATIVE WORK										
IN 1000 TONNES/YEAR	0.6	1.4	2.6	4.3	6.6	8.8	11.3	15.9	20.1	23.9
IN 1000 TONNES CUMULATED	2.6	7.4	17.4	34.6	62.0	100.6	150.7	218.5	308.6	418.6
FABRICATION OF U-FUEL										
IN TONNES HM/YEAR	183.8	397.7	763.7	988.5	1199.8	1367.0	2077.5	2748.5	3358.8	3926.3
IN 1000 TONNES HM CUMUL.	0.7	2.2	4.9	9.2	14.7	21.3	29.4	41.5	56.7	74.9
FABRICATION OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	99.4	819.8	1206.5	1494.0	1891.0	2480.8
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.1	1.7	7.5	14.1	22.5	33.2
FABRICATION OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
REPROCESSING OF U-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	90.4	1548.0	2060.9	1522.1	2089.8	2711.3
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.5	8.2	18.5	26.1	36.6	50.1
REPROCESSING OF PU-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REPROCESSING OF TH-FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	75.6	659.1	1198.0	1459.4	1847.8
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.2	2.0	6.7	13.3	21.6
SPENT FUEL ARISINGS										
IN TONNES HM/YEAR	58.2	200.3	415.0	647.7	831.4	1156.8	2038.2	2990.9	3881.8	4983.1
IN 1000 TONNES HM CUMUL.	0.3	0.9	2.4	5.4	9.1	13.8	21.9	34.9	52.7	75.2
HEAVY METAL STORAGE										
LWR/HWR/GG/AGR URAN. SPENT FUEL										
IN TONNES HM/YEAR	58.2	200.3	415.0	647.7	741.0	-488.0	-826.7	245.5	281.5	359.6
IN 1000 TONNES HM CUMUL.	0.3	0.9	2.4	5.4	8.7	5.3	0.9	1.2	1.7	2.1
PU OR THORIUM SPENT FUEL										
IN TONNES HM/YEAR	0.0	0.0	0.0	0.0	0.0	21.2	145.0	25.3	51.2	64.3
IN 1000 TONNES HM CUMUL.	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.9	1.1	1.4
DETAILS ON FISSILE MATERIAL										
1. PLUTONIUM										
PLUTONIUM IN SYSTEM										
IN TONNES	1.6	5.8	15.6	34.8	61.5	96.2	134.6	174.7	228.2	297.9
PLUTONIUM REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	2.8	20.1	12.1	16.8	21.2	29.3
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	2.9	53.7	139.7	206.9	299.4	418.8
PLUTONIUM RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	2.8	20.1	12.1	16.8	21.2	29.3
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	2.9	36.4	139.7	206.9	299.4	418.8
PU USED IN REACTORS										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	2.7	19.7	12.0	16.7	21.0	29.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	2.7	34.6	137.2	203.8	295.5	413.7
PU REPROCESS. IN STORAGE										
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	-0.0	17.4	0.0	-0.0	-0.0	-0.0
PLUTONIUM IN SPENT FUEL										
IN TONNES/YEAR	0.4	1.3	2.7	4.4	6.3	8.8	11.2	16.2	21.5	27.3
IN TONNES CUMULATED	1.6	5.8	15.6	34.8	61.5	97.7	148.4	218.9	316.0	439.9
AVAIL. PU REMAINING IN LWR/HWR/GG/AGR SPENT FUEL										
IN TONNES CUMULATED	1.4	5.0	14.0	32.0	54.6	37.8	0.0	0.0	0.0	0.0
2. URANIUM-233										
U-233 REPROCESSED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	1.1	9.7	17.6	21.4	27.1
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	2.8	29.7	97.9	195.4	316.7
U-233 RECYCLED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	1.1	9.7	17.6	21.4	27.1
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	2.8	29.7	97.9	195.4	316.7
U-233 USED										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	1.0	9.0	17.5	21.2	26.8
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	2.5	27.4	93.5	190.1	310.0
U-233 REPROC. IN STORAGE										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
U-233 IN SPENT FUEL										
IN TONNES/YEAR	0.0	0.0	0.0	0.0	0.0	1.4	11.9	18.0	22.3	28.2
IN TONNES CUMULATED	0.0	0.0	0.0	0.0	0.0	3.6	36.8	111.5	212.3	338.5

V. Importance of the Supporting Reactor Type for the Impact of an Advanced Reactor System

In the second "Yellow Book" all advanced fissile plutonium using strategies have been calculated on the assumption that the plutonium is derived from Light Water Reactors. But this is only one possible way. For example, the natural uranium Heavy Water Reactor is a more efficient producer of plutonium than the LWRs[1]. Had the HWR therefore been chosen as the main supporting reactor type, the uranium requirements of the concerning strategies would, in many cases, have been considerably less than those shown in the NEA report. This is illustrated in the following examples for the region Asia and Far East (high projection):

a) LMFBR-REF-Strategy

1 Installed LMFBR capacity (GWe)

Supporting System \ Year	2010	2015	2020	2025
LWR(current techn.)	59	78	150	216
HWR(nat. uranium)	65	166	226	355
Total Capacity	167	261	377	503

2 Cumulative uranium requirements in 10^3 tons (100% U-235 credit assumed)

Supporting System \ Year	2010	2015	2020	2025
LWR (current techn.)	224	332	471	619
HWR (nat. uranium)	185	251	331	420

1) Equilibrium fissile plutonium production in
HWR (natural uranium): 0.470 t/GWe·a
LWR (unimproved PWR): 0.220 t/GWe·a
LWR (15% improved PWR): 0.165 t/GWe·a
(see table 1 in this paper or the corresponding table in the second "Yellow Book")

b) HWR-TH/PU-Strategy

1 Installed HWR-TH/PU capacity (GWe)

Supporting System \ Year	2010	2015	2020	2025
LWR(15% improved)	45	56	79	110
HWR(nat. uranium)	86	108	158	224
Total capacity	167	261	377	503

2 Cumulative uranium requirements in 10^3 tons (100% U-235 credit assumed)

Supporting System \ Year	2010	2015	2020	2025
LWR(15% improved)	221	344	515	732
HWR(nat. uranium)	161	245	370	531

A developing countries region was chosen for this demonstration because it is in most cases an open decision which way to go into a nuclear future. This is not true for the most industrialized countries where this decision was a matter of the past and fixed nuclear programmes define this nuclear way in the short and at least the medium term. And within the assumptions of the second "Yellow Book" the obtainable advantages by changing the supporting reactor systems in the variable part of their strategies are very small.

Reference

"Nuclear Fuel Cycle Requirements and Supply Considerations, Through the Long-Term", second report by the Working Party on Nuclear Fuel Cycle Requirements of the OECD Nuclear Energy Agency, Paris (in preparation)