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Double-Shell Tank Space Analysis of Hanford Site Operating **Scenarios**

Prepared for the U.S. Department of Energy Assistant Secretary for Defense Programs



Hanford Operations and Engineering Contractor for the U.S. Department of Energy under Contract DE-AC06-87RL10930

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DOUBLE-SHELL TANK SPACE ANALYSIS OF HANFORD SITE OPERATING SCENARIOS

D. E. McKenney

ABSTRACT

Several operating cases were evaluated to determine the Hanford Site activities that can be supported given two 242-A Evaporator operating assumptions: (1) the evaporator does not restart and (2) the evaporator does not restart until December 1990. These cases included variations in production facility operation and *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement) commitments. The cases that evaluated the "no evaporator restart" operating assumptions determined that even the minimal double-shell tank waste generating activities cannot be supported. For the minimal waste generation rate, double-shell tank space would be depleted by December 1991. The cases that evaluated the evaporator restart would support all production missions with the exception of the plutonium-uranium extraction (PUREX) processing. A delay in the evaporator restart and/or increased waste generation could significantly impact the above conclusions. Actions to reduce waste generation rates, minimize stored volumes in the double-shell tanks, and optimize use of double-shell tanks must be pursued.

EXECUTIVE SUMMARY

Several operating cases were evaluated to determine the Hanford Site activities that can be supported given two 242-A Evaporator operating assumptions: (1) the evaporator does not restart and (2) the evaporator does not restart until December 1990. These cases included variations in production facility operating plans and *Hanford Federal Facility Agreement and Consent Order* [Tri-Party Agreement (TPA)] commitments.

The cases that evaluated the "no evaporator restart" operating assumptions determined that even minimum double-shell tank (DST) waste generating activities cannot be supported for an extended period of time without the evaporator. At best, DST space will be sufficient to accept wastes generated onsite until December 1991. Restart of the evaporator or *complete* shutdown of onsite facilities will be required before this date. Complete shutdown might involve violation of operational safety requirements and/or environmental release limits. Waste management activities, such as single-shell tank stabilization and waste pretreatment, cannot be supported.

Evaluation of the cases that included the December 1990 evaporator restart resulted in more positive results. If the restart of 242-A Evaporator operations is delayed until December 1990, site activities can be conducted as follows:

- Cleanout of the existing inventory in the Plutonium-Uranium Extraction (PUREX) Facility can be performed. This facility stabilization campaign is required to remove existing nuclear material inventories from the facility and to place the facility in the most stable standby condition until production operations can resume.
- Soil column wastes (PUREX Facility ammonia scrubber wastes and PUREX Facility process condensate) can be received in the DSTs during the stabilization campaign. These wastes cannot be received in the DSTs after production operations resume.
- After evaporator restart, processing of fuels in the PUREX Facility can proceed at 500 metric tons of uranium (MTU) per year.
- The Plutonium Finishing Plant can operate. This will include both Plutonium Reclamation Facility and Remote Mechanical "C" (RMC) Line operations at 100 days per year for each.
- TPA commitments, such as Grout Treatment Facility operations, pretreatment operations, single-shell tank stabilization, and Hanford Waste Vitrification Facility startup, can be pursued on schedules consistent with TPA commitment dates.

Assuming PUREX Facility restart is delayed until after the evaporator restart, a slip of approximately 1 month from the December 1990 242-A Evaporator restart date can be accommodated. If the decision is made to begin fuel processing before evaporator restart, some of the above activities will have to be curtailed. A delay in the evaporator restart date will also impact the above activities.

Site performance, relative to the assumptions used as a basis for developing this operating case, must be carefully monitored. Significant deviations from the assumptions will impact the conclusions made.

Actions to reduce waste generation rates, minimize stored volumes in the DSTs, and optimize use of DSTs must still be pursued. Such actions will help increase the mission scope that can be supported in light of constrained DST space availability.

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LIST OF TERMS

| • | DSSF | double-shell slurry feed |
|---|---------|--|
| • | DST | double-shell tank |
| • | Ecology | Washington State Department of Ecology |
| • | FY | fiscal year |
| • | GTF | Grout Treatment Facility |
| • | HWVP | Hanford Waste Vitrification Plant |
| ٠ | MTU | metric tons of uranium |
| • | PFP · | Plutonium Finishing Plant |
| ٠ | PUREX | Plutonium-Uranium Extraction |
| • | RCRA | Resource Conservation and Recovery Act |
| • | RMC | Remote Mechanical "C" |
| • | SST | single-shell tank |
| • | TPA | Tri-Party Agreement (formally known as the Hanford Federal |
| | | Facility Agreement and Consent Order) |

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DOUBLE-SHELL TANK SPACE ANALYSIS OF HANFORD SITE OPERATING SCENARIOS

1.0 INTRODUCTION

Defense waste management and production activities at the Hanford Site result in the generation of liquid wastes, some of which can be discharged to the environment and some of which cannot be discharged to the environment or disposed of without additional treatment. Those that cannot be discharged to the environment are stored in double-shell tanks (DST) to await eventual disposal. Depending on waste characteristics and pretreatment requirements, disposal of these tank wastes may consist of either vitrification and geologic disposal or grouting and near-surface disposal on the Hanford Site.

There are currently 28 DSTs for storage of defense wastes on the Hanford Site. These tanks, of approximately 1-Mgal-capacity each, are critical to continued Hanford Site missions, including defense material production, site cleanup, waste pretreatment, and waste disposal operations.

Much effort is directed at reducing the volumes of waste stored in the DSTs. A major contributor to this waste volume reduction effort is the operation of the 242-A Evaporator, which is used to concentrate wastes and reduce stored volumes. The evaporator system is currently configured such that the treated process condensate (the water removed from the tank waste) is discharged to the soil column.

1.1 PROBLEM

In April 1989, the 242-A Evaporator operations were shut down because of concern that past practices may have generated Resource Conservation and Recovery Act (RCRA)-listed wastes that were discharged to DSTs. These wastes were then processed through the 242-A Evaporator, thus making it possible that the 242-A Evaporator process condensate was a dangerous waste (as it was derived from waste containing listed components). It is also possible that the 242-A Evaporator process condensate may be considered a characteristic dangerous waste.

If it is determined that the 242-A Evaporator process condensate is (was) a dangerous waste, then it is unlikely that use of the existing soil column disposal system can continue. Alternative storage, treatment, and disposal systems may have to be in place before the 242-A Evaporator can restart.

1.2 SCOPE

This report is limited to an evaluation of possible site operating cases, using the availability of DST space as the critical factor in determining the feasibility of the cases. Numerous variations in scope of the Hanford Site mission are evaluated, ranging from site shutdown (standby) to full production operations. Two 242-A Evaporator operating assumptions are evaluated: one in which the 242-A Evaporator does not restart and one in which 242-A Evaporator restarts in December 1990 (based on when a retention facility for the process condensate can be made available).

1.3 BACKGROUND

Site operating cases are evaluated using the Defense Waste Management Waste Volume Projection System. Existing waste volume projections are used to develop the cases presented in this report, and averaging and estimating techniques are used to assess changes from these existing projections.

A detailed waste volume projection model run will be performed for the recommended case to `verify the conclusion contained within this report. The database and methodology used will be similar to those described in Strode (1989).

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2.0 ALTERNATIVE CASES CONSIDERED

Several site operating cases were evaluated to determine the scope of site activities that can be supported, given the possible delay in the restart of the 242-Evaporator. These operating cases are described below.

`2.1 PRIORITIZATION OF SITE ACTIVITIES

To develop operating scenarios, site activities must be prioritized. First, a baseline was developed that reflected the minimum anticipated tank space requirements. This baseline, when compared to available DST space (28 DSTs), is used to establish how much DST space is available for support of site activities. Prioritized site activities can then be used to develop operating scenarios.

Site activities, in order of perceived priority, are as follows.

- Plutonium-Uranium Extraction (PUREX) Facility Stabilization--This activity is required to remove existing nuclear material inventories from the facility and place the facility in the most stable standby condition until production operations resume. This activity is a requirement common to all nonbaseline cases evaluated.
- The Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement [TPA]) Commitments--These commitments are considered to be second only to the safety-related PUREX Facility stabilization activity. This includes commitments related to waste disposal activities, such as B Plant pretreatment operations, single-shell tank (SST) stabilization, and Hanford Waste Vitrification Plant (HWVP) startup.
- Production Operations--Production operations, though important, are considered third priority relative to the preceding activities.

The operating cases, and the resulting waste volume projections for each case, are discussed in the following sections.

2.2 CASE DESCRIPTIONS AND WASTE VOLUME PROJECTIONS (NO EVAPORATOR RESTART)

The waste volume projection cases considered in this section assume that the 242-A Evaporator is *not* restarted. A baseline case is developed, and all subsequent cases represent incremental additions to the baseline.

2.2.1 Baseline (Case 1A)

The baseline case represents the minimum DST space requirements (minimum waste generation) anticipated. The following major assumptions apply to this case.

- The 242-A Evaporator does not resume operations.
- Production facilities (PUREX Facility and Plutonium Finishing Plant [PFP]) do not operate.
 Waste generation is limited to only those wastes generated in standby conditions.
- SST stabilization activities are terminated. No additional saltwell liquid is pumped to the DSTs.
- Pretreatment operations are not pursued. The B Plant is not operated. The Grout Treatment Facility (GTF) feeds resulting from pretreatment operations are not generated.
- The GTF operates for those "groutable" feeds currently in the DSTs. Dilute feeds and double-shell slurry are not processed, for the reasons of unacceptably low waste loadings and lack of dedicated retrieval tank space, respectively.

A more detailed listing of assumptions for the baseline case is included in Appendix A.

The projected waste volumes for the baseline case are shown in Figure 1. This projection includes a number of components: existing waste requiring pretreatment and retrieval before disposal, operational tanks, existing groutable inventory, existing dilute inventory, and standby wastes. Each of these components is discussed below.

The first component of the baseline case projection is the "existing waste requiring pretreatment and/or retrieval before disposal." These wastes, which include aging waste, complexed waste, doubleshell slurry, and neutralized cladding removal waste, cannot be disposed of as currently stored in DSTs. Retrieval and/or pretreatment facilities have to be operational before these wastes can be disposed of in grout or glass.

The next component of the baseline case projection is the "operational" tank requirements. The operational tanks consist of a dedicated aging spare, a dedicated nonaging spare, an operational spare, and a dedicated grout feed DST (241-AP-102). An additional grout feed DST (241-AP-104) will be required when three or more grout campaigns are scheduled per year.

The "existing groutable inventory" component of the baseline case includes those tanks of doubleshell slurry feed (DSSF) or equivalent wastes that are suitable feeds to the GTF as currently stored. The "existing dilute inventory" is dilute waste currently stored in the DSTs. These are dilute wastes that have accumulated to date and are awaiting processing through the 242-A Evaporator. The final component of the baseline case projection is the "standby" waste. Standby wastes are those wastes generated in maintaining a facility in a condition amenable to restart of operations, but are not related to operational activities.

As can be seen in Figure 1, projected tank space requirements exceed available tank space in December 1991 for the baseline case. Restart of the evaporator or complete shutdown of site activities that contribute to DST waste volumes (even standby wastes would have to be eliminated) will be required by this date. Elimination of standby waste might involve violation of operational safety requirements and/or environmental release limits. Waste management activities, such as SST stabilization and waste pretreatment, cannot be pursued because of a lack of DST space.

WDOE13 FY 1994 EXISTING WASTE REQUIRING PRETREATMENT / RETRIEVAL FY 1993 OPERATIONAL TANKS (SPARES AND GROUT FEED) BEFORE DISPOSAL FY 1992 STANDBY WASTE FISCAL YEAR 12/91 EXISTING GROUTABLE INVENTORY EXISTING DILUTE INVENTORY FY 1991 AVALABLE TANKS FY 1990 FY 1989 30 25 20 ξ ģ 35 S 0 DOUBLE-SHELL TANKS

Figure 1. Case 1A--Baseline.

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2.2.2 PUREX Facility Stabilization (Case 1B)

This case is the first increment above the baseline case. It is assumed that the existing inventory in the PUREX Facility will be processed. The stabilization of the PUREX Facility is considered to be a safety issue. Major assumptions, in addition to those listed for the baseline case, are as follows:

- The PUREX Facility operates to achieve stabilization (December 1989 and January 1990); no other production facilities are operated.
- The total waste generation from stabilization operations is 2.1 Mgal.

A more detailed listing of assumptions for the PUREX Facility stabilization case is included in Appendix A.

The results of this projection are shown in Figure 2. The projected DST space requirements exceed available DST space in April 1991. As with the previous case, site activities that contribute to DST waste volumes will have to be completely shut down by this date or the 242-A Evaporator must restart. Waste management activities, such as SST stabilization and waste pretreatment, cannot be pursued because of lack of DST space.

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Figure 2. Case 1B--PUREX Facility Stabilization Waste.

-

2.2.3 Tri-Party Agreement Support (Case 1C)

This case assumes that in addition to the PUREX Facility stabilization, TPA commitments will be pursued. Major assumptions of this case, in addition to those of the previous case, include the following:

- Pretreatment operations are pursued. The B Plant demonstration pretreatment operations start in October 1993.
- Stabilization of SSTs is pursued. The SSTs are stabilized (pumpable liquid transferred to DSTs) according to the TPA schedule.
- Although grout operations are pursued according to the TPA schedule, lack of suitable feed limits the number of campaigns to nine through fiscal year (FY) 1994. No evaporator operations and lack of DSTs for double-shell slurry retrieval are factors contributing to the lack of suitable GTF feed. Fourteen campaigns through FY 1994 were committed to as part of the TPA.

A more detailed listing of assumptions for the TPA support case is included in Appendix A.

The results of the projection are shown in Figure 3. Projected DST space requirements exceed available DST space in January 1991. This projection shows that without the evaporator, TPA milestones cannot be met and site activities that generate DST waste would have to be totally curtailed before January 1991.



Figure 3. Case 1C--Support to Tri-Party Agreement.

2.2.4 Plutonium Finishing Plant Operation (Case 1D)

This case builds on the previous case, but assumes that the PFP is also operated. Major assumptions for this case, in addition to those of the previous case, include the following:

• The PFP is assumed to operate (scrap recovery), and waste generation rates for the PFP were assumed to be the same as those assumed when the PFP and the PUREX Facility are both operating.

A more detailed listing of assumptions for the PFP operations case is included in Appendix A.

The results of the projection are shown in Figure 4. As can be seen in the figure, the projected DST space requirements exceed available DST space in December 1990. The impact of PFP operations on the projections is minimal. Conclusions are the same as for the previous case.



Figure 4. Case 1D--Plutonium Finishing Plant Operation.

2.2.5 PUREX Facility Operation (Case 1E)

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This case includes all of the assumptions of the previous case, plus the assumption that the PUREX Facility and the PFP operate according to planned chemical processing schedules. Major assumptions of this case, in addition to those of the previous case, include the following:

• Following PUREX Facility stabilization (December 1989 and January 1990), the PUREX Facility and PFP continue operations according to planned chemical processing schedules. The PUREX Facility process condensate is disposed of somewhere other than in the DSTs after facility stabilization.

A more detailed listing of assumptions for the PUREX Facility operations case is included in Appendix A.

The results of the projection are shown in Figure 5. Available DST space is exceeded by projected DST space requirements as early as April 1990.

WDOE17 FY 1994 EXISTING WASTE REQUIRING PRETREATMENT / RETRIEVAL TPA SUPPORT FY 1993 OPERATIONAL TANKS (SPARES AND GROUT FEED) **BEFORE DISPOSAL** FY 1992 STANDBY WASTE WASTE PUREX DPERATION FISCAL YEAR EXISTING GROUTABLE INVENTORY STABIJIZATION EXISTING DILUTE INVENTORY FY 1991 OPERATION PUREX FY 1990 4/90 AVALABLE TANKS 0 ---· FY 1989 25. 20 ġ 35 30 μ S DOUBLE-SHELL TANKS

Figure 5. Case 1E--PUREX Facility Operation.

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2.3 CASE DESCRIPTIONS AND WASTE VOLUME PROJECTIONS (DECEMBER 1990 EVAPORATOR RESTART)

The waste volume projection cases considered within this section assume that the 242-A Evaporator *is* restarted in December 1990. This evaporator restart date is based on recent discussions with the Washington State Department of Ecology (Ecology). These cases are the same as the previous cases, with the addition of the evaporator restart assumption.

2.3.1 PUREX Facility Operation and 242-A Evaporator Restart (Case 2A)

This projection has the same assumptions as Case 1E, with the exception that this case assumes an evaporator restart in December 1990.

A detailed listing of the assumptions for this case is included in Appendix A.

The results of the projection are shown in Figure 6. As can be seen in the figure, the projected DST space requirements exceed available DST space in April 1990. As expected, this date does not differ from Case 1E, because the evaporator restart date occurs after the date of projected DST space shortfall. The evaporator upgrades could be done in FY 1994.

FY 1994 AVALABLE TANKS EXISTING WASTE REQUIRING PRETREATMENT / RETRIEVAL FY 1993 OPERATIONAL TANKS (SPARES AND GROUT FEED) 242-A RESTART FY 1992 FISCAL YEAR EVAPORABLE WASTE EXISTING GROUTABLE INVENTORY FY 1991 FY 1990 4/90 1989 Ĭ 30 -15 1 20 2 20 -10 35 S 0

Figure 6. Case 2A--PUREX Facility Operation and 242-A Evaporator Restart.

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2.3.2 Plutonium Finishing Plant Operations and 242-A Evaporator Restart (Case 2B)

This projection has the same assumptions as previously evaluated Case 1D, with the exception that this case assumes an evaporator restart in December 1990.

A detailed listing of the assumptions for this case is included in Appendix A.

The results of the projection are shown in Figure 7. It is important to note that this projection indicates that PFP operations *can* be supported in this case in addition to PUREX Facility stabilization and TPA commitments. The evaporator is expected to process all of the dilute waste by the second quarter of FY 1994.



Figure 7. Case 2B--Plutonium Finishing Plant Operations and 242-A Evaporator Restart.

2.3.3 Modified Production Facility Operations and 242-A Evaporator Restart (Case 2C)

This projection has the same assumptions as Case 2A, with the following exceptions:

- The PFP operates 100 days per year for both the Plutonium Reclamation Facility and the Remote Mechanical "C" (RMC) Line.
- The processing of weapons grade fuel starts 1 month after evaporator restart.
- Processing of fuel in the PUREX Facility operates at 500 metric tons of uranium (MTU) per year after evaporator restart.

A more detailed listing of the assumptions for this case is included in Appendix A.

The results of this projection are shown in Figure 8. This case can be supported because DST space is sufficient to accommodate projected waste volumes. The evaporator upgrades can be done in FY 1994.

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Figure 8. Case 2C--Modified Production Facility Operations and 242-A Evaporator Restart.

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2.3.4 Other Cases

All other cases need not be reexamined with the December 1990 evaporator restart assumption. These cases result in less waste generation than the preceding case (Case 2C) and therefore can be supported.

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3.0 REFERENCES

Strode, J. N., 1989, *1988 Tank Farm Waste Volume Projections*, WHC-EP-0197, Westinghouse Hanford Company, Richland, Washington.

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APPENDIX.A

DETAILED CASE ASSUMPTIONS

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Case 1A Assumptions BASELINE

| | PUREX | | | | | | | | |
|---|------------------|--------------|---------------|--------------|-----------|-----------|-------------|-------------|-------------|
| | ASF Waste | | <u>Not</u> re | turned | | | | | |
| | Stabilization | | NA | | | | | | |
| | Processing Scheo | lule (MTU) | | | | | | | |
| | Fiscal | | | | | | | | |
| • | Year | <u>1989</u> | <u>1990</u> | <u>1991</u> | <u>19</u> | 92 | <u>1993</u> | <u>1994</u> | <u>1995</u> |
| | Weapons | | | | | | | | |
| | Grade | | NA | | | | | | |
| • | Fuels | | | | | | | | |
| | Grade | | NA | | | | | | |
| | PWR II Fuel | | NA | | | | | | |
| | FFTF Fuel | | NA | | | | | | |
| | Aging Waste (@ | 5M Na) | | | | | | | |
| | Weapons Gr | ade | NA g | al/MTU | | | | | |
| | Fuels Grade | | NA | al/MTU | | | | | |
| | PWR II Fuel | | NA | al/MTU | | | | | |
| | FFTF Fuel | | NA | gal/MTU | | | | | |
| | Missellenoous | lasta | | | | | | | |
| | Plant Down | aste | 101 6 | gal/month | - 1st mor | nth | | | |
| | Flanc Down | | 751 | gal/month | - 2nd mo | nth | | | |
| | | | 551 | gal/month | - 3rd mo | nth and | on | | |
| | Plant IIn | | | gal/month | - or a mo | and | 011 | | |
| | Tiantop | | | ZBan monter | | | | | |
| | NCRW | | NA | gal/MTU | | | | | |
| | ASF and ASD | | | | | | | | |
| | Weapons Gr | ade | NA | gal/MTU | | | | | |
| | Fuels Grade | | NA | gal/MTU | | | | | |
| | AO8 | | NA | times the A | lging Wa | aste Volu | ıme | | |
| | PDD | | NA | | | | | | |
| | PFP | | | | | | | | |
| | Processing Sche | dule (Davs o | of Opera | tion) | | | | | |
| | Fiscal | | · · · · · · · | | | | | | |
| | Year Thru | | 1/1/90 | 7/1/9 | 0 1/ | /1/91 | 7/1/91 | 1/1/92 | 7/1/92 |
| | PRF | | NA | | | | | | |
| • | RMC | | NA | | | | | | |
| | Waste Generati | on | | | | | | | |
| | PRF Operat | ion | NA | gal/day of (| Operatio | n | | | |
| - | RMC Opera | tion | NA | gal/day of (| Operatio | n | | | |
| | Lab Operati | on | 71 | gal/month | - | | | | |
| | B Plant | | | | | | | | |
| | Miscellaneous V | Vaste | 54 L | gal/month | (BCP on | ing to te | nk farms) | | |
| | Support of TPA | | UTR | -Dan | | | | | |
| | Oneratione | | NA | | | | | | |
| | Operations | | NA | | | | | | |
| | | | NA | | | | | | |
| | | | NA | | | | | | |
| | Waste Gone | ration | NA | | | | | | |
| | ** 4940 00110 | | - 148 | | | | | | |

Case 1A Assumptions BASELINE (Continued)

| Evaporator | | | | | | | | |
|--|---|--|-------------|-------------|-------------|--------------|-------------|--|
| Restart date | | NA | | | | | | |
| Operations | | NA | | | | | | |
| | | NA | | | | | | |
| | | NA | | | | | | |
| Grout Treatment Fa | acility (GTF | <u>')</u> | | | | | | |
| Processing Sche | dule (Vault | ts filled) | | | | | | |
| Fiscal | | | | | | | | |
| Year | <u>1988</u> | <u>1989</u> | <u>1990</u> | <u>1991</u> | <u>1992</u> | <u>1993</u> | <u>1994</u> | |
| Yearly | 0.5 | 0.5 | 0 | 2 | 3 | 3 | 0 | |
| Culm | 0.5 | 1 | 1 | 3 | 6 | 9 | 9 | |
| Waste Generati | 140 kga | 140 kgal/Vault | | | | | | |
| Operations | No gro - No gro retriev Second | No grouting of dilute waste. No grouting of DSS because of not having retrieval and no retrieval tank available. Second grout feed tank required for over 3 vaults per year. | | | | | | |
| Saltwell Liquid Pur Processing Sche Fiscal | <u>nping</u> edule (Tank | s Stabilized | i) | | | | | |
| Year | 1989 | 1990 | 1991 | <u>1992</u> | <u>1993</u> | 1 994 | 1995 | |
| Yearly | | NA | | | | | | |
| Culm | | NA | | | | | | |
| Porosity | | NA | | | | | | |
| Other Facilities | | | | | | | | |
| S Plant Waste | | 2 kgal | /month | | | | | |
| T Plant Waste | | 17 kgal | /month | | | | | |
| 100 Area Sulfat | te | 16 kgal | /month | | | | | |
| 300/400 Area W | laste | 5 kgal | /month | | | | | |
| Tank Farms | | 50 kgal | /month | | | | | |
| All Flushes | | 33 kgal | /month | | | | | |

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Case 1B Assumptions PUREX CLEANOUT WASTE

| PUREX ASF Waste | <u>Not</u> re | turned | | - | | |
|-------------------------------------|---------------|------------------|----------------------|-------------|--------------------|------------|
| *Stabilization | 2,100 | kgal - December | 1989 and | January 199 | 0 | |
| Figeal | | | | | | |
| Year 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
| Weapons | | | د تند تندر بارد ا | | د. د. د | متحقيقية ا |
| Grade | NA | | | | | |
| Fuels | | | | | | |
| Grade | NA | | | | | |
| PWR II Fuel | NA | | | | | |
| FFTF Fuel | NA | | | | | |
| Aging Waste (@ 5M Na) | | | | | | |
| Weapons Grade | NA | gal/MTU | | | | |
| Fuels Grade | NA | gal/MTU | | | | |
| PWR II Fuel | NA | gal/MTU | | | | |
| FFTF Fuel | NA | gal/MTU | | | | |
| Miscellaneous Waste | | | | | | |
| Plant Down | 101 k | gal/month - 1st | month | | | |
| | 75 k | gal/month - 2nd | month | | | |
| | 55 k | gal/month - 3rd | month and | l on | | |
| Plant Up | NAI | gal/month | | | | |
| NCRW | NA | gal/MTU | | | | |
| ASF and ASD | | 842.111.0 | | | | |
| Weapons Grade | NA | gal/MTU | | | | |
| Fuels Grade | NA | gal/MTU | | | | |
| A08 | NA | times the Aging | Waste Vol | ume | | |
| PDD | NA | | | | | |
| PFP | | | | | | |
| Processing Schedule (Days of Fiscal | f Opera | tion) | | | | |
| Year Thru <u>1/1/90</u> | 7/1/90 |) 1/1/91 | 7/1/91 | 1/1/92 | 7/1/92 | |
| PRF | NA | | | | • | |
| RMC | NA | | | | | |
| Waste Generation | | | | | | |
| PRF Operation | NA 1 | gal/day of Opera | tion | | | |
| RMC Operation | NA a | gal/day of Opera | tion | | | |
| Lab Operation | 71 | gal/month | | | | |

*Changed from previous case.

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Case 1B Assumptions PUREX CLEANOUT WASTE (Continued)

| Miscellaneous Waste 54 kgal/month (BCP going to tank farms) Support of TPA NA Operations NA NA NA Waste Ceneration NA Bestart date NA Operations NA Restart date NA Operations NA NA NA Operations NA NA NA Operations NA NA NA Operations NA NA NA Standard Maxwell NA NA NA Standard Maxwell NA NA NA Standard Maxwell NA Standard Maxwell NA Standard Maxwell NA Year 1988 1990 1991 1992 1993 1994 Year 1988 1989 1990 1991 1992 1993 1994 Waste Generation 140 kgal/Vault Operations - No grouting of DSS because of not having retrieval and no retrieval tank available. - Sec | B Plant | | | | | | | |
|---|-----------------------------------|------------|---|--------------|--------------|-----------|-------------|----------------------|
| Operations NA NA NA NA Waste Generation NA Evaporator Restart date NA Operations Restart date NA NA Grout Treatment Facility (GTF) Processing Schedule (Vaults filled) Fiscal Year 1988 Year 1989 Year 1988 Year 1989 Yearly 0.5 Objections - No grouting of dilute waste. - No grouting of DSS because of not having retrieval and no retrieval tank available. - Second grout feed tank required for more than 3 vaults per year Saltwell Liquid Pumping Processing Schedule (Tanks Stabilized) Fiscal Year 1989 < | Miscellaneous W Support of TPA | aste | 54 kgal/ 1 | month (BCF | going to tai | nk farms) | | |
| NA NA NA Waste Generation NA Evaporator Restart date NA Operations NA NA Grout Treatment Facility (GTF) Processing Schedule (Vaults filled) Fiscal Year <u>1988</u> <u>1989</u> <u>1990</u> <u>1991</u> <u>1992</u> <u>1993</u> <u>1994</u> Yearly 0.5 0.5 0 2 3 3 0 Culm 0.5 1 1 3 6 9 9 Waste Generation 140 kgal/Vault Operations - No grouting of dilute waste. - No grouting of DSS because of not having retrieval and no retrieval tank available. - Second grout feed tank required for more than 3 vaults per year Saltwell Liquid Pumping Processing Schedule (Tanks Stabilized) Fiscal Year <u>1989</u> <u>1990</u> <u>1991</u> <u>1992</u> <u>1993</u> <u>1994</u> <u>1995</u> Yearly NA Culm NA Porosity NA Other Facilities S Plant Waste <u>2 kgal/month</u> 100 Area Sulfate 16 kgal/month 300/400 Area Waste 5 kgal/month | Operations | | NA | | | | | |
| NA Waste GenerationNAEvaporator Restart dateNA NA NA OperationsGrout Treatment Facility (GTF) Processing Schedule (Vaults filled) Fiscal Year Year 2 Year 9 0.51990 1990 1991 1992 1992 1993 1994 1992 1993 1994 1992 1993 1994 1992 1993 1994 1992 1993 1994 1992 1993 1994 1994 1992 1993 1994 1994 1992 1993 1994 1994 1995 1993 1994 1994 1995 1990 1991 1992 1993 1994 1992 1993 1994 1994 1995 1994 1995 1994 1995 1991 1992 1993 1994 1994 1995 1994 1995 1994 1995 1991 1992 1993 1994 1994 1995 1994 1995 1994 1995 1994 1995 1991 1992 1993 1994 1995 1994 1995 1994 1995 1994 1995 1991 1992 1993 1994 1995 1994 1995 1994 1995 1994 1995 1994 1995 1994 1995 | - | | NA | | | | | |
| Waste GenerationNAEvaporator Restart dateNA NA NA NAOperationsNA NA NAGrout Treatment Facility (GTF) Processing Schedule (Vaults filled) Fiscal Year19881990 19901991 19921993 1994 19931994 1993Year1988 19891990 19901991 1 10921993 3 0 01994 01994 9Waste Generation140 kgal/VaultOperations- No grouting of dilute waste. - No grouting of DSS because of not having retrieval and no retrieval tank available. - Second grout feed tank required for more than 3 vaults per yearSaltwell Liquid Pumping Processing Schedule (Tanks Stabilized) Fiscal Yearly1990 1991 19921993 1994 1994 19951994 1995Saltwell Liquid Pumping Processing Schedule (Tanks Stabilized) Fiscal Yearly1990 NA1991 1992 1993 1994 1994 19951994 1995 1994 1995 1994 1995 Yearly1991 1992 1993 1994 1994 1995 1994 1995 1994 1995 Yearly1991 1992 1993 1994 1994 1995 1994 1995 1994 1995 1994 1995 Yearly1991 1992 1993 1994 1994 1995 1 | | | NA | | | | | |
| Evaporator NA Restart date NA Operations NA NA NA NA NA NA NA Second Treatment Facility (GTF) Processing Schedule (Vaults filled) Fiscal Year 1989 1990 1991 1992 1993 1994 Yearly 0.5 0 2 3 0 0 Culm 0.5 1 1 3 6 9 9 Waste Generation 140 kgal/Vault Image: Second grouting of DSS because of not having retrieval and no retrieval tank available. - No grouting of DSS because of not having retrieval and no retrieval tank available. - Second grout feed tank required for more than 3 vaults per year Saltwell Liquid Pumping Processing Schedule (Tanks Stabilized) Fiscal Year 1989 1990 1991 1992 1993 1994 1995 Yearly NA NA NA NA NA Culm NA Second grout feed tank required for more than 3 vaults per year Second grout feed tank required for more than 3 vaults per year NA NA NA NA NA <th>Waste Gener</th> <th>ation</th> <th>NA</th> <th></th> <th></th> <th></th> <th></th> <th></th> | Waste Gener | ation | NA | | | | | |
| Restart date NA Operations NA NA NA NA NA NA NA State NA Grout Treatment Facility (GTF) Processing Schedule (Vaults filled) Fiscal Year 1988 Yearly 0.5 0.5 0 2 3 3 0 Culm 0.5 1 1 3 6 9 9 Waste Generation 140 kgal/Vault 0 0 0 103 6 9 9 Waste Generation 140 kgal/Vault 0 0 0 1 3 6 9 9 Waste Generation 140 kgal/Vault 0 0 100 kgal/Vault 0 100 kgal/Vault 100 kgal/Vault 0 10 <t< td=""><td>Evaporator</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<> | Evaporator | | | | | | | |
| Operations NA NA NA NA Grout Treatment Facility (GTF) Processing Schedule (Vaults filled) Fiscal Year 1988 1990 1991 1992 1993 1994 Year 1988 1989 1990 191 1992 1993 1994 Year 0.5 0.5 0 2 3 3 0 Culm 0.5 1 1 3 6 9 9 Waste Generation 140 kgal/Vault - No grouting of dilute waste. - No grouting of DSS because of not having retrieval and no retrieval tank available. - Second grout feed tank required for more than 3 vaults per year Saltwell Liquid Pumping - Second grout feed tank required for more than 3 vaults per year Saltwell Liquid Pumping - Second grout feed tank required for more than 3 vaults per year Saltwell Liquid Pumping - Second grout feed tank required for more than 3 vaults per year Saltwell Liquid Pumping - Second grout feed tank required for more than 3 vaults per year Yearly NA - NA Cuim NA - | Restart date | | NA | | | | | |
| NA NA Grout Treatment Facility (GTF) Processing Schedule (Vaults filled) Fiscal Year <u>1988</u> <u>1989</u> <u>1990</u> <u>1991</u> <u>1992</u> <u>1993</u> <u>1994</u> Yearly 0.5 0.5 0 2 3 3 0 Culm 0.5 1 1 3 6 9 9 Waste Generation 140 kgal/Vault Operations - No grouting of dilute waste. - No grouting of DSS because of not having retrieval and no retrieval tank available. - Second grout feed tank required for more than 3 vaults per year Saltwell Liquid Pumping Processing Schedule (Tanks Stabilized) Fiscal Year <u>1989</u> <u>1990</u> <u>1991</u> <u>1992</u> <u>1993</u> <u>1994</u> <u>1995</u> Yearly NA Culm NA Porosity NA Other Facilities S Plant Waste <u>2 kgal/month</u> T Plant Waste 17 kgal/month 100 Area Sulfate 16 kgal/month 300/400 Area Waste 5 kgal/month | Operations | | NA | | | | | |
| NA Grout Treatment Facility (GTF) Processing Schedule (Vaults filled) Fiscal Year 1983 1989 1990 1991 1992 1993 1994 Yearly 0.5 0 2 3 3 0 Cuim 0.5 1 1 3 6 9 9 Waste Generation 140 kgal/Vault . . No grouting of dilute waste. . . No grouting of DSS because of not having retrieval and no retrieval tank available. . . Second grout feed tank required for more than 3 vaults per year Saltwell Liquid Pumping Processing Schedule (Tanks Stabilized) . <td>-</td> <td></td> <td>NA</td> <td></td> <td></td> <td></td> <td></td> <td></td> | - | | NA | | | | | |
| Grout Treatment Facility (GTF) Processing Schedule (Vaults filled) Fiscal Year 1988 1989 1990 1991 1992 1993 1994 Yearly 0.5 0.5 0 2 3 3 0 Culm 0.5 1 1 3 6 9 9 Waste Generation 140 kgal/Vault 9 9 Waste Generation 140 kgal/Vault 9 9 Waste Generation 140 kgal/Vault 9 9 Waste Generations - No grouting of dilute waste. No grouting of DSS because of not having retrieval and no retrieval tank available. Second grout feed tank required for more than 3 vaults per year <t< td=""><td></td><td></td><td>NA</td><td></td><td></td><td></td><td></td><td></td></t<> | | | NA | | | | | |
| Processing Schedule (Vaults filled)FiscalYear1988198919901991199219931994Yearly0.50.502330Culm0.5113699Waste Generation140 kgal/VaultOperations- No grouting of dilute waste. - No grouting of DSS because of not having retrieval and no retrieval tank available. - Second grout feed tank required for more than 3 vaults per yearSaltwell Liquid Pumping Processing Schedule (Tanks Stabilized) Fiscal Year Yearly199019911992199319941995Year Unum1989199019911992199319941995YearlyNA CulmNAPorosityNAOther Facilities S Plant Waste2 kgal/month 100 Area Sulfate16 kgal/month 100 Area Waste5 kgal/month | Grout Treatment Fac | ility (GT) | <u>F)</u> | | | | | |
| Year1988198919901991199219931994Yearly0.50.502330Culm0.5113699Waste Generation140 kgal/VaultOperations- No grouting of dilute waste. - No grouting of DSS because of not having retrieval and no retrieval tank available. - Second grout feed tank required for more than 3 vaults per yearSaltwell Liquid Pumping Processing Schedule (Tanks Stabilized) Fiscal Year199919911992199319941995Year1989199019911992199319941995Year1989199019911992199319941995Year1989199019911992199319941995YearlyNACulmNAPorosityNACulmNAOther Facilities S Plant Waste2 kgal/month 17 kgal/month 100 Area Sulfate16 kgal/month 16 kgal/month 300/400 Area Waste5 kgal/month | Processing Sched Fiscal | lule (Vaul | ts filled) | | | | | |
| Yearly0.50.502330Culm0.5113699Waste Generation140 kgal/VaultOperations- No grouting of dilute waste. - No grouting of DSS because of not having retrieval and no retrieval tank available. - Second grout feed tank required for more than 3 vaults per yearSaltwell Liquid Pumping Processing Schedule (Tanks Stabilized) Fiscal Year199019911992199319941995Year1989199019911992199319941995YearlyNA CulmNAPorosityNAOther Facilities S Plant Waste2 kgal/month 17 kgal/month 100 Area Sulfate16 kgal/month 16 kgal/month 300/400 Area Waste5 kgal/month | Year | 1988 | 1989 | <u>1990</u> | 1991 | 1992 | 1993 | 1994 |
| Culm0.5113699Waste Generation140 kgal/VaultOperations- No grouting of dilute waste. - No grouting of DSS because of not having retrieval and no retrieval tank available. - Second grout feed tank required for more than 3 vaults per yearSaltwell Liquid Pumping Processing Schedule (Tanks Stabilized) Fiscal Year199019911992199319941995Year1989199019911992199319941995YearlyNA CulmNAPorosityNAOther Facilities S Plant Waste2 kgal/month 16 kgal/month 300/400 Area Waste5 kgal/month | Yearly | 0.5 | 0.5 | 0 | 2 | 3 | 3 | 0 |
| Waste Generation140 kgal/VaultOperations- No grouting of dilute waste. - No grouting of DSS because of not having retrieval and no retrieval tank available. - Second grout feed tank required for more than 3 vaults per yearSaltwell Liquid Pumping Processing Schedule (Tanks Stabilized) Fiscal Year 1989 1990 1991 1992 1993 1994 1995 Yearly NA Culm NAPorosityNAOther Facilities S Plant Waste 17 kgal/month 100 Area Sulfate 300/400 Area Waste2 kgal/month | Culm | 0.5 | 1 | 1 | 3 | 6 | 9 | 9 |
| Operations - No grouting of dilute waste. - No grouting of DSS because of not having retrieval and no retrieval tank available. - Second grout feed tank required for more than 3 vaults per year Saltwell Liquid Pumping Processing Schedule (Tanks Stabilized) Fiscal Year 1989 Yearly NA Culm NA Porosity NA Other Facilities 2 kgal/month S Plant Waste 17 kgal/month 100 Area Sulfate 16 kgal/month 300/400 Area Waste 5 kgal/month | Waste Generatio | n | 140 kga | al/Vault | | | | |
| Saltwell Liquid Pumping Processing Schedule (Tanks Stabilized) Fiscal Year 1989 1990 1991 1992 1993 1994 1995 Yearly NA Culm NA Porosity NA Other Facilities S Plant Waste 2 kgal/month T Plant Waste 17 kgal/month 100 Area Sulfate 16 kgal/month 300/400 Area Waste 5 kgal/month | Operations | | No grouting of dilute waste. No grouting of DSS because of not having retrieval and no retrieval tank available. Second grout feed tank required for more than 3 vaults per v | | | | | nd no ts per year |
| Sattweit Exclusive Charlen Future Future Future Future Future Future Future FieldProcessing Schedule (Tanks Stabilized)FiscalYear1989Year1990YearlyNACulmNAPorosityNAOther FacilitiesS Plant Waste2 kgal/monthT Plant Waste17 kgal/month100 Area Sulfate16 kgal/month300/400 Area Waste5 kgal/month | Saltwall Liquid Dum | nina | | | | | | |
| Year1989199019911992199319941995YearlyNACulmNAPorosityNAOther FacilitiesS Plant Waste2 kgal/monthT Plant Waste17 kgal/month100 Area Sulfate16 kgal/month300/400 Area Waste5 kgal/month | Processing Sched Fiscal | iule (Tanl | s Stabilized | i) | | | | |
| Yearly NA Yearly NA Culm NA Porosity NA Other Facilities S Plant Waste 2 kgal/month T Plant Waste 17 kgal/month 100 Area Sulfate 16 kgal/month 300/400 Area Waste 5 kgal/month | Year | 1989 | 1990 | 19 91 | 1992 | 1993 | 1994 | 1995 |
| CulmNACulmNAPorosityNAOther FacilitiesS Plant Waste2 kgal/monthT Plant Waste17 kgal/month100 Area Sulfate16 kgal/month300/400 Area Waste5 kgal/month | Yearly | | NA | | | | | |
| PorosityNAOther FacilitiesS Plant Waste2 kgal/monthT Plant Waste17 kgal/month100 Area Sulfate16 kgal/month300/400 Area Waste5 kgal/month | Culm | | NA | | | | | |
| Other FacilitiesS Plant Waste2 kgal/monthT Plant Waste17 kgal/month100 Area Sulfate16 kgal/month300/400 Area Waste5 kgal/month | Porosity | | NA | | | | | |
| S Plant Waste2 kgal/monthT Plant Waste17 kgal/month100 Area Sulfate16 kgal/month300/400 Area Waste5 kgal/month | Other Facilities | | | | | | | |
| T Plant Waste17 kgal/month100 Area Sulfate16 kgal/month300/400 Area Waste5 kgal/month | S Plant Waste | | 2 kgal | /month | | | | |
| 100 Area Sulfate16 kgal/month300/400 Area Waste5 kgal/month | T Plant Waste | | 17 kgal | /month | | | | |
| 300/400 Area Waste 5 kgal/month | 100 Area Sulfate | 1 | 16 kgal | /month | | | | |
| | 300/400 Area Wa | nste | 5 kgal | /month | | | | |
| Tank Farms 50 kgal/month | Tank Farms | | 50 kgal | /month | | | | |

Case 1C Assumptions SUPPORT TO TRI-PARTY AGREEMENT

| PUREX | | | | | | | |
|---------------|------------------------|-----------------|---------------|--------------|-------------|---------------|---------------|
| ASF Waste | | <u>Not</u> retu | rned | | | | |
| Stabilization | | 2,100 kg | al - Decembe | r 1989 and . | January 199 | 90 | |
| Processing Sc | hedule (MTU) |) | | | | | |
| Fiscal | | | | | | | |
| Year | <u>1989</u> | <u>1990</u> | <u>1991</u> | <u>1992</u> | <u>1993</u> | <u>1994</u> | <u>1995</u> |
| Weapons | | | | | | | |
| Grade | | NA | | | | | |
| Fuels | | | | | | | |
| Grade | | NA | | | | | |
| PWR II F | uel | NA | | | | | |
| FFTF Fu | el | NA | | | | | |
| Aging Waste | (@ 5M Na) | | | | | | |
| Weapons | Grade | NA gal | /MTU | | | | |
| Fuels Gra | ade | NA gal | /MTU | | | | |
| PWR II F | uel | NA gal | /MTU | | | | |
| FFTF Fu | el | NA gal | /MTU | | | | |
| Miscellaneou | is Waste | | | | | | |
| Plant Do | wn | 101 kga | l/month - 1st | ; month | | | |
| | | 75 kga | l/month - 2n | d month | | | |
| | | 55 kga | l/month - 3r | d month and | lon | | |
| Plant Up | • | NA kga | l/month | | | | |
| NCRW | | NA gal | /MTU | | | | |
| ASF and ASI | כ | • | | • | | | |
| Weapons | Grade | NA gal | /MTU | | | | |
| Fuels Gr | ade | NA gal | I/MTU | | | | |
| AO8 | | NA tin | nes the Agin | g Waste Vol | lume | | |
| PDD | | NA | - | - | | | |
| 000 | | | | | | | |
| <u>PFP</u> | ale ale de la Comercia | | | | | | |
| Fiscal | cnedule (Days | of Operatio |)[]) | | | | |
| Year Th | ru | 1/1/90 | 7/1/90 | 1/1/91 | 7/1/91 | <u>1/1/92</u> | <u>7/1/92</u> |
| PRF | | NA | | | | | |
| RMC | | NA | | | | | |
| Waste Gener | ration | | | | | | |
| PRF Ope | eration | NA ga | l/day of Oper | ration | | | |
| RMC OD | eration | NA ga | I/day of Open | ration | | | |
| Lab Ope | ration | 7 kgal | /month | | | | |
| • | | - | | | | | |

 $(\mathbf{x}_{i},\mathbf{x}_{i}) = (\mathbf{x}_{i},\mathbf{x}_{i}) + (\mathbf{x}_{i},\mathbf{x}_{i})$

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Case 1C Assumptions SUPPORT TO TRI-PARTY AGREEMENT (Continued)

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| <u>B Plant</u> | | | | | | | | | | |
|--|------------------------|--|--|---|------------------------------|------------------------------|---------------|--|--|--|
| Miscellaneous | Waste | 54 kgal | 54 kgal/month (BCP going to tank farms) | | | | | | | |
| *Support of TI Operation | PA s | - Tank 1 - Tank 1 - Tank 1 | - Tank 101-AY cleanout 10/91 (2 year before demo) - Tank 102-AY cleanout 10/92 (1 year before demo) - Tank 102-AY filled with 600 kgal water 10/93 | | | | | | | |
| *Waste Gener | ation | 2 gal/1 g | al feed | | | | | | | |
| Evaporator | | | | | | | | | | |
| Restart date | | NA | | | | | | | | |
| Operations | | NA | | | | | | | | |
| | | NA | | | | | | | | |
| ~ • ~ • • • • | - | | | | | | | | | |
| Grout Treatment | Facility (GT) | | | | | | | | | |
| Fiscal | neaule (vaul | ts Illied) | | | | | | | | |
| Year | <u>1988</u> | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | | | |
| Yearly | 0.5 | 0.5 | 0 | 2 | 3 | 3 | 0 | | | |
| Culm | 0.5 | 1 | 1 | 3 | 6 | 9 | 9 | | | |
| Waste Genera | ition | 140 kga | l/Vault | | | | | | | |
| Operations | | - No gro - No gro - retriev - Second | uting of dilu uting of DSS val tank ava grout feed | ite waste. 5 because of ilable. tank require | not having i d for over 3 | retrieval an vaults per 1 | d no year. | | | |
| Saltwell Liquid P | umping | | | | | | | | | |
| *Processing S Fiscal | chedule (Tar | iks Stabilize | ed) | | | | | | | |
| Year | <u>1989</u> | <u>1990</u> | <u>1991</u> | <u>1992</u> | <u>1993</u> | <u>1994</u> | <u>1995</u> | | | |
| Yearly | 3 | 5 | 9 | 9 | 9 | 9 | 5 | | | |
| Culm | 3 | 8 | 17 | 26 | 35 | 44 | 49 | | | |
| *Porosity | | 35% | | | | | | | | |
| <u>Other Facilities</u> S Plant Waste T Plant Waste 100 Area Sulf 300/400 Area Tank Farms | e e ate Waste | 2 kgal 17 kgal/ 16 kgal/ 5 kgal 50 kgal/ | 'month 'month 'month 'month 'month | | | | | | | |

*Changed from previous case.

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Case 1D Assumptions PFP OPERATION

| PUI | REX | | | | | | | | | | | |
|-----------|-------------------------|-------------|---------------------|---------------|-------------------|-------------|-------------|-------------|--|--|--|--|
| ASF Waste | | | <u>Not</u> returned | | | | | | | | | |
| | Stabilization | | 2,100 kg | al - Decemb | er 1989 and | January 19 | 90 | | | | | |
| | Processing Sched | ule (MTU) | | | | | | | | | | |
| | Fiscal | | | | | | | | | | | |
| | Year | <u>1989</u> | <u>1990</u> | <u>1991</u> | <u>1992</u> | <u>1993</u> | <u>1994</u> | <u>1995</u> | | | | |
| | Weapons | | | | | | | | | | | |
| | Grade | | NA | | | | | | | | | |
| | Fuels | | | | | | | | | | | |
| | Grade | | NA | | | | | | | | | |
| | PWR II Fuel | | NA | | | | | | | | | |
| | FFTF Fuel | | NA | | | | | | | | | |
| | Aging Waste (@ 8 | 5M Na) | | | | | | | | | | |
| | Weapons Gra | de | NA. ga | I/MTU | | | | | | | | |
| | Fuels Grade | | NA ga | NA gal/MTU | | | | | | | | |
| | PWR II Fuel | | | I/MTU | | | | | | | | |
| | FFTF Fuel | | NA gal/MTU | | | | | | | | | |
| | Miscellaneous Wa | aste | | | | | | | | | | |
| | Plant Down | | 101 kga | ul/month - 1s | st month | | | | | | | |
| | | | 75 kg | al/month - 2 | nd month | | | | | | | |
| | | | 50 kg | al/month - 3 | rd month an | d on | | | | | | |
| | Plant Up | | NA kg | al/month | | | | | | | | |
| | NCRW | | NA sa | I/MTU | | | | | | | | |
| | ASF and ASD | | 6 | | | | | | | | | |
| | Weapons Gra | de | NA ga | MTU | | | | | | | | |
| | Fuels Grade | | NA ga | UMTU | | | | | | | | |
| | A08 | | NA tir | nes the Agir | ng Waste Vo | lume | | | | | | |
| | PDD NA | | | | -5 ··· 4500 · · 0 | | | | | | | |
| PF | P | | | | | | | | | | | |
| <u></u> | *Processing Saha | dula (Dava | ofOmorot | ion) | | | | | | | | |

Processing Schedule (Days of Operation) Fiscal

| Year Thru | 1/1/90 | 7/1/90 | <u>1/1/91</u> | 7/1/91 | 1/1/92 | 7/1/92 | | | |
|----------------|--------|--------------------------|---------------|---------|--------|--------|--|--|--|
| PRF | 240 | | 120 | | 120 | 80 | | | |
| RMC | *** | 53 | 26 | 26 | 26 | 26 | | | |
| *Waste Generat | ion | | | | | | | | |
| PRF Operati | ion | 1,344 ga | l/day of Ope | eration | | | | | |
| RMC Operat | ion | 448 gal/day of Operation | | | | | | | |
| Lab Operation | on | 7 kg | gal/month | | | | | | |

*Changed from previous case.

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Case 1D Assumptions PFP OPERATION (Continued)

| <u>B Plant</u> | | | | | | | | | | | |
|---|---|---|---|-------------------------------|-----------------------------|---------------|-------------|--|--|--|--|
| Miscellaneous W | 54 kgal/month (BCP going to tank farms) | | | | | | | | | | |
| Support of TPA | | | | | | | | | | | |
| Operations | | - Tank 10 | - Tank 101-AY cleanout 10/91 (2 year before demo) | | | | | | | | |
| | | - Tank 10 | 02-AY clean | out 10/92 (1 | year before | demo) | | | | | |
| | | - Tank 10 | 02-AY filled | with 600 kg | gal water 10 | /93 | | | | | |
| Waste Gener | ation | 2 gal/1 g | 2 gal/1 gal feed | | | | | | | | |
| Evaporator | | | | | | | | | | | |
| Restart date | | NA | | | | | | | | | |
| Operations | | NA | | | | | | | | | |
| | | NA | | | | | | | | | |
| | | NA | | | | | | | | | |
| Grout Treatment Fa | <u>cility (GTF</u> |) | | | | | | | | | |
| Processing Schee | iule (Vault | s filled) | | | | | | | | | |
| Fiscal | | | | | | | | | | | |
| Year | <u>1988</u> | <u>1989</u> | <u>1990</u> | <u>1991</u> | <u>1992</u> | <u>1993</u> | <u>1994</u> | | | | |
| Yearly | 0.5 | 0.5 | 0 | 2 | 3 | 3 | 0 | | | | |
| Culm | 0.5 | 1 | 1 | 3 | 6 | 9 | 9 | | | | |
| Waste Generation | 140 kgal/Vault | | | | | | | | | | |
| Operations | - No grou - No grou retriev - Second | uting of dilu uting of DSS val tank ava grout feed (| ite waste. 5 because of ilable. cank require | not having 1 ed for over 3 | etrieval an vaults per y | d no vear. | | | | | |
| Saltwell Liquid Pur | ining | | | | | | | | | | |
| Processing Sche | dule (Tank | s Stabilized | n | | | | | | | | |
| Fiscal | | | -, | | | | | | | | |
| Year | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | | | | |
| Yearly | 3 | 5 | 9 | 9 | 9 | 9 | 5 | | | | |
| Culm | 3 | 8 | 17 | . 26 | 35 | 44 | 49 | | | | |
| Porosity | | 35% | | | | | | | | | |
| <u>Other Facilities</u> S Plant Waste T Plant Waste 100 Area Sulfate 300/400 Area W Tank Farms | e aste | 2 kgal/ 17 kgal/ 16 kgal/ 5 kgal/ 50 kgal/ | 'month 'month 'month 'month 'month | | | | | | | | |

*Changed from previous case.

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Case 1E Assumptions PUREX FACILITY OPERATION

| PUREX | | | | | | | | | | |
|------------|-------------|--------------|--|--------------|-------------|--------------|-------------|-------------|--|--|
| ASF Wast | te | | Not returned | | | | | | | |
| Stabilizat | ion | | 2,100 kgal - December 1989 and January 1990 | | | | | | | |
| *Processi | ng Sche | dule (MTU) | | | | | | | | |
| Fiscal | | | | | | | | | | |
| Year | | <u>1989</u> | <u>1990</u> | <u>1991</u> | <u>1992</u> | <u>1993</u> | <u>1994</u> | <u>1995</u> | | |
| Weap | ons | | | | | | | | | |
| Grad | le | 332 | 187 | | | | | | | |
| Fuels | | | | | | | | | | |
| Grad | le | | 380 | 500 | 500 | 430 | | | | |
| PWR | II Fuel | | | | | | 48 | | | |
| FFTF | ' Fuel | | | | | | | 1,366 | | |
| *Aging W | laste (@ |) 5M Na) | | | | | | | | |
| Wear | ons Gra | ade | 281 gal/ | MTU | | | | | | |
| Fuels | Grade | | 245 gal | MTU | | | | | | |
| PWR | II Fuel | | 245 gal | MTU | | | | | | |
| FFTH | Fuel | | 58 gal | /MTU | | | | | | |
| * 7.6 11 . | | 87 4 - | | | | | | | | |
| TMISCEII | | waste | 101 - | l/month 1 | at month | | | | | |
| Flan | , Down | | 75 kg | al/month S | and month | | | | | |
| | | | 55 kg | al/month - 3 | and month a | nd on | | | | |
| Plan | IIn | | 194 km | al/month (6 | 9 kgal/mont | h more thar | standby) | | | |
| I lain | , op | | 124 KBar monai (oo KBar monai moro anar samas) | | | | | | | |
| *NCRW | | | 1,664 ga | I/MTU | | | | | | |
| *ASF and | ASD | | | | | | | | | |
| Weaj | ons Gra | ade | 4,500 ga | l/MTU (pri | or to ammon | ia destructi | on) | | | |
| Fuels | s Grade | | 350 ga | l/MTU (aft | er ammonia | destruction | .) | | | |
| *A08 | | | 6 ti | mes the Ag | ing Waste V | olume | | | | |
| | | | (5 | Sent to tank | farms) | | | | | |
| *PDD | | | Not sent | to DSTs aft | er cleanout | | | | | |
| DFD | | | | | | | | | | |
| Processi | ng Sche | dule (Days o | of Operatio | n) | | | | | | |
| Fisca | | aa.o (aj o o | i o por uno | , | | | | | | |
| Year | Thru | 1/1/90 | 7/1/90 | 1/1/91 | 7/1/91 | 1/1/92 | 7/1/92 | | | |
| PRF | | 240 | | 120 | | 120 | 80 | | | |
| RMC | ; | | 52 | 26 | 26 | 26 | 26 | | | |
| Waste G | eneratio | n | | | | | | | | |
| PRF | Operat | ion | 1,344 ga | l/day of Op | eration | | • | - | | |
| RMC | Operat | tion | 448 g | al/day of Or | peration | | | | | |
| Lab | Operati | on | 7 k | gal/month | | | | | | |
| | | | | | | | | | | |

*Changed from previous case.

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Case IE Assumptions PUREX FACILITY OPERATION (Continued)

| B Plant | | | | | | | | | | |
|-----------------------------------|----------------------------------|--|---|---|-------------------------------|------------------------------|---------------|--|--|--|
| Miscellaneous W Support of TPA | 54 kgal/ | 54 kgal/month (BCP going to tank farms) | | | | | | | | |
| Operations . | - Tank 1 - Tank 1 - Tank 1 | - Tank 101-AY cleanout 10/91 (2 year before demo) - Tank 102-AY cleanout 10/92 (1 year before demo) - Tank 102-AY filled with 600 kgal water 10/93 | | | | | | | | |
| Waste Gener | ation | 2 gal/1 g | gal feed | | | | | | | |
| Evaporator | | | | | | | | | | |
| Restart date | | NA | | | | | | | | |
| Operations | | NA | | | | | | | | |
| | | NA | | | | | | | | |
| | | NA | | | | | | | | |
| Grout Treatment Fac | cility (GTF | ') | | | | | | | | |
| Processing Sched | lule (Vault | s filled) | | | | | | | | |
| Fiscal | | | | | | | | | | |
| Year | <u>1988</u> | <u>1989</u> | <u>1990</u> | <u>1991</u> | <u>1992</u> | <u>1993</u> | 1994 | | | |
| Yearly | 0.5 | 0.5 | 0 | 2 | 3 | 4 | 0 | | | |
| Culm | 0.5 | 1 | 1 | 3 | 6 | 10 | 12 | | | |
| | | 140 kga | l/Vault | | | | | | | |
| Operations | | - No gro - No gro retriev - Second | uting of dilu uting of DSS val tank ava I grout feed (| ite waste. 5 because of ilable. tank require | not having 1 ed for over 3 | retrieval an vaults per j | d no year. | | | |
| Saltwell Liquid Pum | ning | | | | | | | | | |
| Processing Scheo Fiscal | iule (Tank | s Stabilized | i) | | | | | | | |
| Year | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | | | |
| Yearly | 3 | 5 | 9 | 9 | 9 | 9 | 5 | | | |
| Culm | 3 | 8 | 17 | 26 | 35 | 44 | 49 | | | |
| Porosity | | 35% | | | | | | | | |
| Other Facilities | | | | | | | | | | |
| S Plant Waste | | 2 kgal/ | month | | | | | | | |
| T Plant Waste | | 17 kgal/ | month | | | | | | | |
| 100 Area Sulfate |) | 16 kgal/ | month | | | | | | | |
| 300/400 Area Wa | aste | 5 kgal | /month | | | | | | | |
| Tank Farms | | 50 kgal | 50 kgal/month | | | | | | | |

Case 2A Assumptions PUREX FACILITY OPERATION / EVAP RESTART

| PUREX | | | | | | | | | | | |
|------------------|---------------------|--|---|---------------|--------------|-------------|-------------|--|--|--|--|
| ASF Waste | | <u>Not</u> returned 2 100 kgal - December 1989 and January 1990 | | | | | | | | | |
| Stabilization | L . | 2,100 kg | 2,100 kgal - December 1989 and January 1990 | | | | | | | | |
| Processing S | chedule (MTU |) | • | | | | | | | | |
| Fiscal | | | | | | | | | | | |
| Year | <u>1989</u> | <u>1990</u> | <u>1991</u> | <u>1992</u> | <u>1993</u> | <u>1994</u> | <u>1995</u> | | | | |
| Weapons | 1 | | | | | | | | | | |
| Grade | 332 | 187 | | | | | | | | | |
| Fuels | | 400 | 500 | 500 | 017 | .* | | | | | |
| | 5 | 493 | 500 | 500 | 317 | 40 | | | | | |
| PWRIIF FFTFF. | | | | | | 48 | 1 266 | | | | |
| FFIF FU | lei | | | | | | 1,300 | | | | |
| Aging Waste | e (@ 5 <u>M</u> Na) | | | | | | | | | | |
| Weapons | s Grade | 281 gal | /MTU | | | | | | | | |
| Fuels Gr | ade | 245 gai | /MTU | | | | | | | | |
| PWR II F | luel | 245 gal | /MTU | | | | | | | | |
| FFTF Fu | ıel | 58 ga | I/MTU | | | | | | | | |
| Miscellaneou | us Waste | | | | | | | | | | |
| Plant Do | wn | 101 kg | 101 kgal/month - 1st month | | | | | | | | |
| | | 75 kg | 75 kgal/month - 2nd month | | | | | | | | |
| | | 55 kg | al/month - 3 | rd month an | d on | | | | | | |
| Plant Up |) | 124 kg | 124 kgal/month (69 kgal/month more than standby) | | | | | | | | |
| NCRW | | 1.664 99 | 1,664 gal/MTU | | | | | | | | |
| ASF and AS | D | -, | | | | | | | | | |
| Weapons | - s Grade | 4.500 g | 4,500 gal/MTU | | | | | | | | |
| Fuels Gr | ade | 350 gal/MTU | | | | | | | | | |
| A08 | | 6 t | 6 times the Aging Waste Volume (Sent to tank farms) | | | | | | | | |
| PDD | | Not sen | t to DSTs af | ter cleanout | | | | | | | |
| ספס | | | | | | | | | | | |
| Processing S | chedule (Dave | ofOneratio | an) | | | | | | | | |
| Fiscal | chequie (Days | of Operation | 511/ | | | | | | | | |
| Year Th | ru 1/1/90 | 7/1/90 | 1/1/91 | 7/1/91 | 1/1/92 | 7/1/92 | | | | | |
| PRF | 240 | | 120 | | 120 | 80 | | | | | |
| RMC | | 52 | 26 | 26 | 26 | 26 | | | | | |
| Waste Gener | ration | | | | | | | | | | |
| PRF Ope | eration | 1,344 g | al/day of Or | eration | | | | | | | |
| RMC Op | eration | 448 g | al/day of Or | eration | | | | | | | |
| Lab Ope | ration | 7 k | gal/month | | | | | | | | |
| R Diant | | | | | | | | | | | |
| Miscellaneo | us Wasta | 54 k | gal/month (| BCP going to | tank farme | 2) | | | | | |
| Support of T | PA | UT R | Ban | Sor going a | odina idi mi | , | | | | | |
| Oneratic | | - Tank 1 | 01-AY clea | nout 10/91 (S | vears hefo | re demo) | | | | | |
| operant | 7 • • • • • | - Tank 1 | 02-AY clea | nout 10/92 (1 | vears befor | re demo) | | | | | |
| | | - Tank 1 | 102-AY fille | d with 600 k | gal water 1(|)/93 | | | | | |
| | , , . | | 3/4 3 4 4 | | | | | | | | |
| Waste G | eneration | 2 gal/1 gal feed | | | | | | | | | |

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Case 2A Assumptions PUREX FACILITY OPERATION / EVAP RESTART (Continued)

| Evaporator | | | | | | | | | | |
|--|---|--|---|-------------|-------------|-------------|-------------|--|--|--|
| *Restart date | | 12/90 | 12/90 | | | | | | | |
| *Operations | | - Ramp u - The eva is proce - After u kgal/m | Ramp up to 1,000 kgal/month in steps of 250 kgal/month. The evaporator will continue operation until all dilute inventory is processed and then will be down for 11 months for upgrades. After upgrades are completed the evaporator will ramp up to 1,000 kgal/month in steps of 250 kgal/month. | | | | | | | |
| Grout Treatment I | Facility (GTI | <u>F)</u> | | | | | | | | |
| *Processing So Fiscal | chedule (Vau | ilts filled) | | | | | | | | |
| Year | <u>1988</u> | <u>1989</u> | <u>1990</u> | <u>1991</u> | <u>1992</u> | <u>1993</u> | <u>1994</u> | | | |
| Yearly | 0.5 | 0.5 | 0 | 2 | 3 | 4 | 4 | | | |
| Culm | 0.5 | 1 | 1 | 3 | 6 | 10 | 14 | | | |
| Waste Genera | 140 kga | 140 kgal/Vault | | | | | | | | |
| Operations | - No gro - No gro retriev - Second | No grouting of dilute waste. No grouting of DSS because of not having retrieval and no retrieval tank available. Second grout feed tank required for over 3 vaults per year. | | | | | | | | |
| Saltwell Liquid Pu Processing Sch Fiscal | <u>umping</u> hedule (Tanl | s Stabilized | i) | | | | | | | |
| Year | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | | | |
| Yearly | 3 | 5 | 9 | 9 | 9 | 9 | 5 | | | |
| Culm | 3 | 8 | 17 | 26 | 35 | 44 | 49 | | | |
| Porosity | 35% | | | | | | | | | |
| <u>Other Facilities</u> | | | | | | | | | | |
| S Plant Waste | | 2 kgal/ | month | | | | | | | |
| T Plant Waste | • | 17 kgal/ | month | | | | | | | |
| 100 Area Sulf | ate | 16 kgal/ | month | | | | | | | |
| 300/400 Area | Waste | 5 kgal | /month | | | | | | | |
| Tank Farms | 50 kgal/ | 50 kgal/month | | | | | | | | |

*Changed from previous case.

Case 2B Assumptions PFP OPERATION / EVAP RESTART

| PU | REX | | | | | | | | | |
|----|--------------------|----------------|---|--------------|--------------|-------------|---------------|-------------|--|--|
| | ASF Waste | | <u>Not</u> retu | rned | | | | | | |
| | Stabilization | | 2,100 kgal - December 1989 and January 1990 | | | | | | | |
| | *Processing Sche | dule (MTL | J) | | | | | | | |
| | Fiscal | | | | | | | | | |
| | Year | <u>1989</u> | <u>1990</u> | <u>1991</u> | <u>1992</u> | <u>1993</u> | <u>1994</u> | <u>1995</u> | | |
| | Weapons | | | | | | | | | |
| | Grade | | NA | | | | | | | |
| | Fuels | | | | | | | | | |
| | Grade | | NA | | | | | | | |
| | PWR II Fuel | | NA | | | | | | | |
| | FFTF Fuel | | NA | | | | | | | |
| | *Aging Waste (@ | 5 <u>M</u> Na) | | | | | | | | |
| | Weapons Gra | de | NA gal | l/MTU | | | | | | |
| | Fuels Grade | | NA gal | I/MTU | | | | | | |
| | PWR II Fuel | | NA gal | I/MTU | | | | | | |
| | FFTF Fuel | | NA gal | I/MTU | | | | | | |
| | *Miscellaneous V | Vaste | | | | | | | | |
| | Plant Down | | 101 kga | l/month - 1s | t month | | | | | |
| | | | 75 kga | l/month - 21 | nd month | | | | | |
| | | | 55 kga | ul/month - 3 | rd month and | d on | | | | |
| | Plant Up | | NA kga | al/month | | | | | | |
| | *NCRW | | NA ga | l/MTU | | | | | | |
| | *ASF and ASD | | _ | | | | | | | |
| | Weapons Gra | ıde | NA ga | I/MTU | | | | | | |
| | Fuels Grade | | NA ga | l/MTU | | | | | | |
| | *A08 | | NA tir | nes the Agir | ng Waste Vo | lume | | | | |
| | PDD | | NA | | | | | | | |
| PF | P | | | | | | | | | |
| | Processing Sched | lule (Days | of Operatio | on) | | | | | | |
| | Fiscal | | - | | | | | | | |
| | Year Thru | 1/1/90 | 7/1/90 | 1/1/91 | 7/1/91 | 1/1/92 | <u>7/1/92</u> | | | |
| | PRF | 240 | | 120 | | 120 | 80 | | | |
| | RMC | | 52 | 26 | 26 | 26 | 26 | | | |
| | Waste Generatio | n | | | | | | | | |
| | PRF Operati | on | 1,344 g | al/day of Op | eration | | | | | |
| | RMC Operat | ion | 448 | gal/day of O | peration | | | | | |
| | Lab Operatio | n | 7 | kgal/month | | | | | | |

*Changed from previous case.

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Case 2B Assumptions PFP OPERATION / EVAP RESTART (Continued)

| <u>B Plant</u> | | | | | | | | | | | |
|------------------------------|--|---|---|---|-----------------------|-------------|-------------|--|--|--|--|
| Miscellaneous Wast | 54 kgal | 54 kgal/month (BCP going to tank farms) | | | | | | | | | |
| Support of TPA | | | | | | | | | | | |
| Operations | - Tank 10 - Tank 10 - Tank 10 | 01-AY clean 02-AY clean 02-AY filled | out 10/91 (2 out 10/92 (1 with 600 kg | year before year before al water 10 | demo) demo) /93 | | | | | | |
| Waste Generati | on | 2 gal/1 g | al feed | | | | | | | | |
| Evaporator | | | | | | | | | | | |
| Restart date | | 12/90 | | | | | | | | | |
| Operations | - Ramp u - The eva is proce - After u kgal/m | Ramp up to 1,000 kgal/month in steps of 250 kgal/month. The evaporator will continue operation until all dilute inventory is processed and then will be down for 11 months for upgrades. After upgrades are completed the evaporator will ramp up to 1,000 kgal/month in steps of 250 kgal/month. | | | | | | | | | |
| Grout Treatment Facili | tv (GTF | ') | | | | | | | | | |
| Processing Schedul Fiscal | e (Vault | s filled) | | | | | | | | | |
| Year | 1988 | <u>1989</u> | <u>1990</u> | <u>1991</u> | <u>1992</u> | <u>1993</u> | <u>1994</u> | | | | |
| Yearly | 0.5 | 0.5 | 0 | 2 | 3 | 4 | 4 | | | | |
| Culm | 0.5 | 1 | 1 | 3 | 6 | 10 | 14 | | | | |
| Waste Generation | | 140 kgal/Vault | | | | | | | | | |
| Operations | No grouting of dilute waste. No grouting of DSS because of not having retrieval and no retrieval tank available. Second grout feed tank required for over 3 vaults per year. | | | | | | | | | | |
| Saltwall Liquid Dumpin | | | | | | | | | | | |
| Processing Schedul Fiscal | e (Tank | s Stabilized | 1) | | | | | | | | |
| Year | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | | | | |
| Yearly | 3 | 5 | 9 | 9 | 9 | 9 | 5 | | | | |
| Culm | 3 | 8 | 17 | 26 | 35 | 44 | 49 | | | | |
| Porosity | | 35% | | | | | | | | | |
| Other Facilities | | | | | | | | | | | |
| S Plant Waste | | 2 kgal | month | | | | | | | | |
| T Plant Waste | | 17 kgal/ | month | | | | | | | | |
| 100 Area Sulfate | | 16 kgal/ | month | | | | | | | | |
| 300/400 Area Wast | e | 5 kgal/month | | | | | | | | | |
| Tank Farms | - | 50 kgal/ | 50 kgal/month | | | | | | | | |

Case 2C Assumptions MODIFIED PRODUCTION FACILITY **OPERATION / EVAP RESTART**

| Pl | JREX | | | | | | | | |
|-----------|------------------|---------------------|--------------------|---------------|-----------------|---------------|----------------|-------------|-------------|
| | ASF Waste | | <u>Not</u> ref | urned | | | | | |
| | *Stabilization | | 2,100 k | gal - Dec | ember 19 | 89 and Ja | nuary 19 | 90 | |
| | *Processing Sch | edule (MTU | J) | | | | | | |
| | Fiscal | | | | | | | | |
| | Year | <u>1989</u> | <u>1990</u> | <u>1991</u> | <u>1992</u> | <u>1993</u> | <u>1994</u> | <u>1995</u> | <u>1996</u> |
| | Weapons | | | | | | | | |
| | Grade | 144 | 0 | 3751 | | | | | |
| | Fuels | | | | | | | | |
| | Grade | | | 70 | 500 | 500 | 500 | 240 | |
| | PWR II Fuel | | | | | | | 48 | |
| | FFTF Fuel | | | | | | | 797 | 569 |
| | *A ging Waste (6 | D 5M Na) | | | | | | | |
| | Weapong Gr | ado | 281 0 | | | | | | |
| | Fuels Grade | auc | 201 ge | | | | | | |
| | DWR II Fual | | 2410 go | | | | | | |
| | FFTF Fuel | | 440 ge | | | | | | |
| | ff if fuei | | 00 8 | | | | | | |
| | *Miscellaneous | Waste | | | | | | | |
| | Plant Down | | 101 kg | al/month | - 1st mor | nth | | | |
| | | | 75 kg | gal/month | 1 - 2nd mo | onth | | | |
| | | | 55 kg | gal/month | ı - 3rd mo | nth and o | n | | |
| | Plant Up | | 124 kg | al/month | (69 kgal | /month m | ore than | standby) | |
| | *NCRW | | 1,664 | gal/MTU | | | | | |
| | *ASF and ASD | | • | | | | | | |
| | Weapons Gr | ade | 350 ¹ g | al/MTU | | | | | |
| | Fuels Grade | | 350 ga | MTU | | | | | |
| | *A08 | | 6 ti | mes the A | Aging Wa | ste Volur | ne | | |
| | | | | | 00 | | | | |
| <u>11</u> | <u>rp</u> | - 1-1- (D - | | (*) | | | | | |
| | Processing Sch | eau)e (Day | s of Opera | t10n) | | | | | |
| | Fiscal | 1/1/00 | 7 11 10 0 | 1/1/01 | R (1)01 | 1 /1 /00 | 5 /1/00 | | |
| | Year Thru | 1/1/90 | <u>7/1/90</u> | <u>1/1/91</u> | <u>7/1/91</u> | <u>1/1/92</u> | <u>7/1/92</u> | | |
| | PKF | 0 | 40 | 60 | 40 | 6U | 40 | | |
| | RMC | . 0 | 40 | 60 | 40 | 60 | 40 | | |
| | - Waste Generat | 10 n | 1 | | · · · | | | | |
| | PKF Operati | ion | 1,344 | gal/day of | Operatio | on | | | |
| | RMC Operat | t10 n | 448 | gal/day o | f Operati | on | | | |
| | Lab Operation | on | 7 | kgal/moi | nth | | | | |

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Changed from the previous case.
 Weapons Grade processing occurs after the ammonia destruction process is in place.

Case 2C Assumptions MODIFIED PRODUCTION FACILITY OPERATION / EVAP RESTART (Continued)

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| B Plant | | | | | | | | | | | |
|---|----------------------------------|--|---|--|--|---|----------------------------------|--|--|--|--|
| Miscellaneous Waste Support of TPA | | 54 kgal | 54 kgal/month (BCP going to tank farms) | | | | | | | | |
| Öperations | - Tank 1 - Tank 1 - Tank 1 | 01-AY clear 02-AY clear 02-AY filled | out 10/91 (2 out 10/92 (1 l with 600 kg | year before year before gal water 10 | demo) demo) /93 | | | | | | |
| Waste Gener | ation | 2 gal/1 g | al feed | | | | | | | | |
| Evaporator | | | | | | | | | | | |
| Restart date Operations | | 12/90 - Ramp u - The eva is proce - After u 1,000 k | ip to 1,000 k aporator wil essed and th pgrades are gal/month i | gal/month i ll continue o len will be do completed t n steps of 25 | n steps of 25 peration un own for 11 m he evaporat 0 kgal/mont | 0 Kgal/mo. til all dilute nonths for u for will ram th. | inventory pgrades. p up to | | | | |
| Grout Treatment Fac | cility (GTF | ני | | | | | | | | | |
| *Processing Sche Fiscal | edule (Vau | lts filled) | | | | | | | | | |
| Year | <u>1988</u> | <u>1989</u> | <u>1990</u> | <u>1991</u> | <u>1992</u> | <u>1993</u> | <u>1994</u> | | | | |
| Yearly | 0.5 | 0.5 | 0 | 2 | 3 | 4 | 4 | | | | |
| Culm 0 | 0.5 | 1 | 1 | 3 | 6 | 10 | 14 | | | | |
| Waste Generatio | n | 140 kga | l/Vault | | | | | | | | |
| Operations | | - No gro - No gro retriev - Second | uting of dilu uting of DSS val tank ava l grout feed (| ite waste. 5 because of ilable. tank require | not having i d for over 3 | etrieval an vaults per : | id no year. | | | | |
| Saltwell Liquid Pum | ping | | | | | | | | | | |
| Processing Sche Fiscal | dule (Tanl | cs Stabilize | d) | | | | | | | | |
| Year | <u>1989</u> | <u>1990</u> | <u>1991</u> | <u>1992</u> | <u>1993</u> | <u>1994</u> | <u>1995</u> | | | | |
| Yearly | 3 | 5 | 9 | 9 | 9 | 9 | 5 | | | | |
| Culm | 3 | 8 | 17 | 26 | 35 | 44 | 49 | | | | |
| Porosity | | 35% | | | | | | | | | |
| Other Facilities S Plant Waste T Plant Waste 100 Area Sulfate 300/400 Area Wa Tank Farms | e aste | 2 kgal 17 kgal 16 kgal 5 kgal 50 kgal | /month /month /month /month /month | U | | | | | | | |

*Changed from the previous case.

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