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# International Neutron Radiography Newsletter

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### INTERNATIONAL NEUTRON RADIOGRAPHY NEWSLETTER

J. C. Domanus

<u>Abstract</u>. At the First World Conference on Neutron Radiography it was decided to continue the "Neutron Radiography Newsletter", published previously by J.P. Barton, as the "International Neutron Radiography Newsletter" (INRNL), with J.C. Domanus as editor.

The British Journal of Non-Destructive Testing (BJNDT) has agreed to publish the INRNL in its column "NDT Bookcase".

The Revue Practique de Control Industriel has also agreed to publish the French version of the INRNL.

Up till now 12 issues of the INRNL were published in the BJNDT. They are reviewed below.

INIS Descriptors: INFORMATION DISSEMINATION; NEUTRON RADIOGRAP-HY.

Accepted for presentation at the Second World Conference On Neutron Radiography, Paris, 16-20.06.1986.

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#### 1. INTRODUCTION

For several years Dr. J. P. Barton has published the "Neutron Radiography Newsletter" (NRN) which has been printed courtesy of the American Society for Nondestructive Testing.

Unfortunately, this valuable publication, giving current news about the activities of various neutron radiography centers throughout the world has been discontinued.

There was a common feeling that such a publication is still necessary and this problem was discussed at the recent First World Conference on Neutron Radiography. As a conclusion of this discussion it was decided to resume the publication of the NRN in a new, enlarged form as an "International Neutron Radiography Newsletter" (INRNL), with J. C. Domanus (Risø National Laboratory, DK-4000 Roskilde, Denmark) as editor.

The Euratom Neutron Radiography Working Group (NRWG) (to which J. C. Domanus is a chairman) is particularly interested in the publication of the INRNL and will sponsor it.

The newsletter encloses short reports about the activities of various neutron radiography centers throughout the world, reports of the activities of the NRWG and, when appropriate, contributions about special items of interest to all active in the field of neutron radiography.

A French version of the INRNL is also published in Revue Pratique de Controle Industriel.

To facilitate and speed-up the task of collecting information about the activities of NR centers throughout the world, coeditors were chosen: Dr. J. P. Barton (N-Ray Engineering Co., 5709 Waverly Ave, La Jolla CA 92037, USA) for information originating from outside of Europe and Mr. G. Bayon (Services des Piles de Saclay, CEN-Saclay, F-91191 Gif-sur-Yvette, France) for information from the French speaking countries. All information worth publishing in the INRNL ought to be directed to one of the above mentioned persons.

While starting the continuation of publishing of the current news on neutron radiography special thanks must be expressed to Dr. J. P. Barton who has started the pioneering activity in that field. It seems most appropriate to start the new edition of the INRNL with a report on the previous activity of the NRN.

### 2. THE NEUTRON RADIOGRAPHY NEWSLETTER

Between 1964 and 1976 fifteen volumes of the Neutron Radiography Newsletter were prepared and distributed free of charge by direct mail to requestees from around the world.

The purpose, in those pioneering days, was primarily to provide a format whereby researchers in this new and exciting field could keep abreast of each other's progress.

In 1977, in response to the substantial requests for back copies, a combined edition of Volumes 1-15 was prepared.

In contains news submitted by one hundred centers around the world, a classified bibliography of seven hundred reports, and a hundred-page section of review articles.

## 3. THE INTERNATIONAL NEUTRON RADIOGRAPHY NEWSLETTER

The first issue of the INRNL appeared in Vol.26, No. 2 of the BJNDT in February, 1984. It has described the purpose and scope of the INRNL, as mentioned above. It was prepared by J. C. Domanus and J. P. Barton.

The second issue of the INRNL (prepared by J. C. Domanus) was describing the activities of the Euratom Neutron Radiography Working Group. It appeared in Vol. 26, No. 4 of the BJNDT in May 1984. Items like organisation and procedures of the NRWG, classifications of defects, reference neutron radiographs, image quality, accuracy of dimensional measurements, the NRWG Test Program, recommended practices, application of nitrocellulose film and publications and meetings of the NRWG were described.

The third issue of the INRNL (prepared by J. P. Barton) contained news from the USA. It was published in Vol. 26, No. 5 of the BJNDT in July 1984. Information was given on standard practices, terminology, film quality standards, system, specification and personnel qualification.

Although the fourth issue of the INRNL, prepared by J. P. Barton on aircraft inspection systems, was sent to the BJNDT on 20.06.84 it was not published yet.

The fifth issue of the INRNL (prepared by H. Tourwe and V. Stulens) describes the NR facilities at Mol, Belgium. It was published in Vol. 26, No 7 of the BJNDT in November 1984. The design and operation of two NR facilities at the BR1 and BR2 reactors are reviewed.

In the sixth issue of the INRNL H. P. Leeflang describes NR facilities at Petten, Netherlands. It was published in Vol. 27, No 2 of the BJNDT in March, 1985. It describes the pool and dry NR facilities of the High Flux Reactor as well as the optical evaluation equipment.

The seventh issue of the INRNL (prepared by G. Ducros), describes the NR facilities at Grenoble, France. It was published in Vol. 27, No 3 of the BJNDT in May, 1985. The NR facilities at Grenoble are of dry type (reactor Melusine) and pool type (reactor Siloe). In the eigth issue of the INRNL D. H. C. Harris and W. A. J. Seymour describe the NR facility at the Dido reactor at Harwell, England. It was published in Vol. 27, No 4, of the BJNDT in July, 1985. Here the Dido reactor itself and the thermal and cold neutron NR facilities are described.

The ninth issue of the INRNL describes the NR facility at the DRl reactor at Risø, Denmark. It was published in Vol. 27, No 6 of the BJNDT in November, 1985. Here J. C. Domanus describes the double beam NR facility, the radiographic procedure used there and the application of NR.

The tenth issue of the INRNL contains the description of NR activity at NDE laboratory (Department of Nuclear Engineering) at Technion - Israel Institute of Technology in Haifa, Israel. It was contributed by Y. Segal and published in Vol. 28, No 1 of the BJNDT in January, 1986.

In the eleventh issue of the INRNL J. Rant describes the NR and autoradiography activities at the J. Stefan Institute in Ljubljana, Yogoslavia.

The contribution of G. Bayon about the NR facility at the Orphee reactor in Saclay, France, prepared as the twelfth issue of the INRNL, was sent for publication in the BJNDT. It will appear in Vol. 28, No 4, July, 1986. After the description of the facility itself (lay-out, exposure room, adjoining rooms) operation of the facility is explained and its applications summarized.

# Risø National Laboratory

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INTERNATIONAL NEUTRON RADIOGRAPHY NEWSLETTER	Department or group
J. C. Domanus	Metallurgy
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