ORGANIZATION: INTERNATIONAL NUTRONICS, INC. DOVER, NEW JERSEY

REPURT INSPECTION INSPECTION 99900922/83-01 NO.: DATE(S) 5/3-4/83 ON-SITE HOURS: 32 CORRESPONDENCE ADDRESS: International Nutronics, Inc. ATTN: B. J. Thomas Plant Manager U. S. Highway 46, Schley Street Dover, New Jersey 07801 ORGANIZATIONAL CONTACT: Mr. B. J. Thomas, Plant Manager TELEPHONE NUMBER: (201) 361-0583 PRINCIPAL PRODUCT: In-air gamma irradiation services. NUCLEAR INDUSTRY ACTIVITY: International Nutronics, Inc. (INI) is currently developing a program to control the activities related to the irradiation of Class 1E safety-related equipment for environmental qualification testing. INI anticipates receiving contracts for testing in the future. ASSIGNED INSPECTOR: 6-14-83 A. R. Johnson, Equipment Qualification Section Date (EOS) OTHER INSPECTOR(S): E. A. Salazar, NRC Consultant, Sandia National Laboratories, 6-14-83 tullins APPROVED BY: Phillips, Chief, EQS S. Date INSPECTION BASES AND SCOPE: Α. BASES: 10 CFR Part 21 and 10 CFR Part 50, Appendix B. Β. SCOPE: This inspection consisted of: (1) discussions with INI in their preparation of a quality assurance manual for the INI quality assurance program to control safety-related testing; (2) review of applicable irradiation procedures of INI's quality assurance program for EQ testing; and (3) review of INI's dosimetry procedures and implementation. PLANT SITE APPLICABILITY: DESIGNATED ORIGINAL Certified by Rheanne Clark Not identified. 8307120293 830617 PDR 0A999 EMVINTNU 99900922 PDR

ORGANIZATION: INTERNATIONAL NUTRONICS, INC. DOVER, NEW JERSEY

| REPO NO.: | DRT 99900922/83-01 | INSPECTION RESULTS: | PAGE 2 of 3 | | |
|--------------|---|--|------------------------------------|--|--|
| Α. | VIOLATIONS: | | | | |
| 1 | None | | | | |
| в. | NONCONFORMANCES: | | | | |
| | None | | | | |
| с. | UNRESOLVED ITEMS: | | | | |
| | None | | | | |
| D. | OTHER FINDINGS OR COMMEN | <u>TS</u> : | | | |
| | International Nutronics, Inc., Dover, New Jersey, facility is part of International Nutronics, Inc. headquartered in Palo Alto, California, with irradiating facilities in Palo Alto, Dover, and a newly acquired facility in Irvine, California. The Dover facility, the subject of this report, is an irradiating facility with a 389,000 curie source supplied by Atomic Energy of Canada, Limited (AECL), stored in a 15-foot deep water tank, capable of approximately 3 Mrad/hr in the present configuration. | | | | |
| | INI's present work activ cartons, and sacks. Most foodstuffs to pharmaceut | ities normally involve bulk pro- t are never opened. The produc | duct; i.e., bags, ts range from | | |

cartons, and sacks. Most are never opened. The products range from foodstuffs to pharmaceutical staples, the function being to sterilize by destroying spores, mold or other microorganisms. No safety-related irradiation of test specimens for the nuclear industry is being conducted at this time; however, when the plant manager was initially contacted, he stated that they expect to obtain a contract for nuclear work and requested that Region IV evaluate his present QA program to determine its adequacy for EQ testing.

1. <u>QA Program Review</u>: INI has no quality assurance manual in place to meet the requirements of 10 CFR Part 50, Appendix B to date. INI intends to comply with regulatory requirements in their preparation of a quality assurance manual for the INI quality assurance program to control saftey-related EQ testing. The writing of the quality assurance manual will be addressed by the Palo Alto corporate office to provide uniform programs to each of INI's facilities. A quality assurance manager is expected to join the INI, Dover, New Jersey, facility within 2-3 months. Fifteen applicable criteria out of a total of eighteen will pertain to the Dover, New Jersey, facility. ORGANIZATION: INTERNATIONAL NUTRONICS, INC. DOVER, NEW JERSEY

1 1

| REPORT NO.: | 99900922/83-01 | INSPECTION RESULTS: | PAGE 3 of 3 |
|----------------|---|--|--|
| 2. | Irradiation and Dosimetry Procedure Review: The NRC inspection team reviewed six INI procedures which control their facilities' irradidation and dosimetry system activities. These procedures were adequate to control their present contracts with pharmaceutical/foodstuff manufacturers; however, environmental qualification testing criteria was not specifically addressed. INI intends to upgrade their present procedures to implement the requirements to control safety-related environmental qualification testing. | | |
| | INI is also in the procedures and docu for EQ testing. The The NRC inspection of irradiator operation | process of initiating the neo mentation to satisfy the QA p ney expect to have these in p team also reviewed INI's pro- ators. | cessary additional program requirements lace within 2-3 months. cedure for training |
| 3. | Red Perspex Dosimet INI red perspex typ The NRC inspection methods employed in obtain the absorbed measuring and test maintained at press having known valid The red perspex dos 0.5-5.0 megarads. | ry System: The NRC inspection team also reviewed the calibration using the spectrophotometer dose of the red perspex dost equipment was calibrated, ad; ribed intervals against cert relationships to nationally n simeters are used by INI for o | on team reviewed the nd its implementation. ration procedure and and micrometer to imeters. This justed, and ified standards recognized standards. close ranges of |
| 4. | INI Glass Dosimetry INI glass dosimetry The NRC inspection methods employed in absorbed dose. The against the red per The INI glass dosin | System: The NRC inspection procedure and evaluated its team reviewed the calibration using the spectrophotometer INI glass dosimeters are cro spex dosimeters over the 0.5- meters are used for dose range | team reviewed the implementation. n procedure and to obtain the oss-referenced -0.6 megarad range. es up to 0.7 |

| PERSONS CONTACTED TATERAL PL NEUTRONICS INC. Dates 5/3 - 5/6/83 | | | | | | | |
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| Docket/Report No. 999 | 00922/83-01 | Page 1 of 1 | | | | | |
| NAME(Please Print) | TITLE(Please Print) | ORGANIZATION(Please Print) | | | | | |
| A.R. JOHNSON Bruce J. Thomas | EQUIP QUALY TEST Plant Manager | USNRC REF VPB EQS INI/Doverfacility | | | | | |
| E.A. SALAZAR | MEMBER TECHNICAL STAff | SANDIA NatioNAL LABORATORIES | | | | | |
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A. R. JOHNSON Inspector Scope/Module 99900922/83-01

DOCUMENTS EXAMINED

| | 2 | TITLE/SUBJECT | 3 | 4 |
|---|------|--|----------|-------|
| | 3 | Grocedure - good Irradiation), | N/A | N/A |
| 2 | 3 | Procedure - Good Irradiation, AttachmentA | Alaska | .1.16 |
| 3 | 3 | Attach B - Dosimetry Propagate for alus Dosime | 4/20/83 | 3 N/A |
| - | 8 | Attach C - Dosimetry Log Sheet 1 | 4/19/83 | 1 |
| 5 | 8 | Attach D - Irradiction Cextitication Form | NIA | N/A |
| - | | Attach & intered Standard Irradiation General II Quadrant Shuffle | - Durell | |
| 7 | 5 | Purchase Order No 735845 (2.5 Mradsthy Charcoa | 10/8/14 | N/A |
| 8 | B | Certification of Exposure Charcool 1×10"R | 11/3/76 | N/A |
| 7 | 00 | Audit Keport- Radiation Safety, | 9/1/82 | NA |
| D | 3 | Red Perlipex Dosimetry System Procedure | 4/20/83 | NA |
| 2 | 3 4: | Josimetry Frocedure Hory glass Vosimeter | 4/19/8: | NA |
| 3 | 0 C | Dosimetry Log Sheet | 4/19/83 | NA |
| | | | ' ' / | |

Document Types:

- Drawing 1.
- 2. Specification
- 3. Procedure
- 4. QA Manual
- 5. Purchas Order 6. Internal Memo
- 7. Letter
- 8. Other (Specify-if necessary)

Columns:

- Sequential Item Number 1.
- 2. Type of Document
- Date of Document
 Revision (If applicable)

Docket No. Report No. Page \ of

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183-01 Inspector A.R. JOHNISON Scope/Module 999 00 922

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DOCUMENTS EXAMINED

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Report No. Docket No.

Page 2

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Letter Other (Specify-if necessary)

- Procedure QA Manual Nin 4

- 840.
- Internal Memo

Drawing Specification

Document Types: 1. Drawing

- Purchas Order

- Columns: -
- Sequential Item Numbe Type of Document Date of Document Revision (If applicab 4.9.