| U.S. NUCLEAR REGULATORY COMMISSION (07-2012) 10 CFR 2.201 SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION | | | | | | | |
|---|--|---|--|---|---|--|--|
| 1. LICENSEE/LOCATIO | DN INSPECTED: | | 2. NRC/REGIONAL OFFICE | | | | |
| University of N 636 Grace Hall Risk Managem Notre Dame, IN | Notre Dame du Lac ent and Safety N 46556 | | Region III U. S. Nuclear Regulatory Commission 2443 Warrenville Road, Suite 210 Lisle U. 60532 4352 | | | | |
| REPORT NUMBER(| 5) 2018001 | | LISIC, IL 00332-4332 | | | | |
| 3. DOCKET NUMBER(S) 4. L | | 4. LICENSE NUMBER | (S) | 5. DATE(S) OF INSPECT | TION | | |
| 030-00694 | | 13-01983-01- | | OCTOBER 23, | 2018 | | |
| LICENSEE: The inspection was a Regulatory Commiss procedures and repre | n examination of the activities conduct ion (NRC) rules and regulations and th esentative records, interviews with pers | ed under your license e conditions of your l onnel, and observati | e as they relate to radiation safe icense. The inspection consist ons by the inspector. The inspe | ety and to compliance v ed of selective examina ection findings are as fo | vith the Nuclear tions of bllows: | | |
| 1. Based on | the inspection findings, no violations w | vere identified. | | | | | |
| 2. Previous | 2. Previous violation(s) closed. | | | | | | |
| 3. The violat non-repet discretion | tions(s), specifically described to you b itive, and corrective action was or is be , were satisfied. | y the inspector as no ing taken, and the re | n-cited violations, are not being emaining criteria in the NRC En | cited because they we forcement Policy, to exe | ere self-identified, ercise | | |
| | Non-cited violation(s) were discuss | ed involving the follo | wing requirement(s): | | | | |
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| 4. During this inspection, certain of your activities, as described below and/or attached, were in violation of NRC requirements and are being cited in accordance with NRC Enforcement Policy. This form is a NOTICE OF VIOLATION, which may be subject to posting in accordance with 10 CFR 19.11. (Violations and Corrective Actions) | | | | | | | |
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| | Sta | tement of Correc | ctive Actions | | | | |
| I hereby state that, wi corrective actions is n date when full complia | thin 30 days, the actions described by nade in accordance with the requireme ance will be achieved). I understand the lance will be achieved. | me to the Inspector vents of 10 CFR 2.201 nat no further written | will be taken to correct the viola (corrective steps already taken response to NRC will be requin | tions identified. This st n, corrective steps which ed, unless specifically r | atement of h will be taken, equested. | | |
| TITLE | PRINTED NAME | | SIGNATURE | | DATE | | |
| | | | | | | | |
| NRC INSPECTOR | Dennis P. O'Dowd | | Dennis P. D' Down | 0 | 10/23/18 | | |
| BRANCH CHIEF | Aaron T. McCraw | | 1-1L | | 11/15/18 | | |
| NRC FORM 591M PART | 1 (07-2012) | | 71 | e and a family and and a | | | |

| NRC FORM 591M PART 3 (07-2012) 10 CFR 2.201 U.S. NUCLEAR REGULATORY COMMISSION Docket File Information SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION | | | | | | | |
|---|---------------------------------|--|---|--|--|--|--|
| LICENSEE/LOCATION INSPECTE University of Notre Dan 636 Grace Hall Risk Management and S Notre Dame, IN 46556 REPORT NUMBER(S) 201800 | ED: ne du Lac afety D1 | | 2. NRC/REGIONAL OFFICE Region III U. S. Nuclear Regulatory Commission 2443 Warrenville Road, Suite 210 Lisle, IL 60532-4352 | | | | |
| 3. DOCKET NUMBER(S) 030-00694 | | 4. LICENSE NUMBER(S) 13-01983-01 | | 5. DATE(S) OF INSPECTION October 23, 2018 | | | |
| 6. INSPECTION PROCEDURES USE 87122, 87126 | ED | 7. INSPECTION FOCUS AREAS All | | | | | |
| | SUPPLEM | ENTAL INSPECT | ION INFORMATION | | | | |
| 1. PROGRAM CODE(S) 01100, 03520, 22110 | 2. PRIORITY 3 | 3. LICENSEE CONTACT Andrew G. Welding | | 4. TELEPHONE NUMBER (574) 631-5037 | | | |
| ✓ Main Office Inspection Next Inspection Date: 10/23/2021 | | | | | | | |
| ✓ Field Office Inspection Main Campus & 929 Eddy St. South Bend, IN □ Temporary Job Site Inspection | | | | | | | |
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PROGRAM SCOPE

This was routine, unannounced inspection of a large academic institution that operated a Type A academic broad scope program with authorization for byproduct material with atomic numbers 3-83, self-shielded irradiators, and several sealed sources for R&D as defined in 10 CFR 30.4 and/or 10 CFR 70.4, including animal studies and training of students, and other sealed and unsealed byproduct, source, and special nuclear material in specified quantities for research, training, and instrument calibration. The radiation safety department was staffed with a dedicated full-time RSO and a safety specialist. Radioactive wastes are handled by the institutions waste staff, whose training includes handling rad waste. The licensee established a Radiation Safety Committee (RSC) that reviewed and approved users, uses and facilities for the institution. The RSC met quarterly to conduct business. Approximately 32 individuals were approved by the RSC as principle investigators (PIs), approved for research in 70 laboratories on campus; of these, there were 11 PIs who actively conducted research in about 30 labs. Approximately 70 individuals worked under the supervision of the PIs. The majority of the licensee's research involved actinides, as well as P-32, H 3, I-125, and C-14, The radiation safety office conducted audits of the Actinides Research Facility labs on a monthly basis, and at all other research labs every other month.

PERFORMANCE OBSERVATIONS

This inspection consisted of interviews with licensee personnel, observations of laboratory use of RAM, independent measurements, and a review of select records. Accompanied by the radiation safety officer (RSO), the inspector toured several research laboratories on and near the campus, including the Actinides Research Facility labs, and the radioactive waste storage area. Observations by the inspector, along with interviews conducted with available licensee staff, revealed an adequate level of understanding of emergency and materials handling procedures and techniques. The RSO described how inventories, surveys, and periodic laboratory inspections were performed, the process of permit application reviews, and the methods and frequency of radiation training of licensee staff. The inspector reviewed licensee records, including RSC meeting minutes, annual audits, RSO laboratory audit reports, waste manifests, sealed source leak tests, and personnel monitoring. The inspector performed independent and confirmatory radiation surveys and found no readings indicative of residual contamination or exposure in excess of 10 CFR Part 20 dose limits. (cont'd. on next page)

| NRC FORM 591M PART 3 (07-2012) 10 CFR 2.201 U.S. NUCLEAR REGULATORY COMMISSION U.S. NUCLEAR REGULATORY COMMISSION U.S. NUCLEAR REGULATORY COMMISSION Docket File Information SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION | | | | | | | | |
|--|------------------------------------|---|---------------------------------------|--|--|--|--|--|
| 1. LICENSEE/LOCATION INSPECTED: | | 2. NRC/REGIONAL OFFICE | | | | | | |
| University of Notre Dame du Lac 636 Grace Hall Risk Management and Safety Notre Dame, IN 46556 | | Region III U. S. Nuclear Regulatory Commission 2443 Warrenville Road, Suite 210 Lisle, IL 60532-4352 | | | | | | |
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| SUPPLEM | IENTAL INSPECT | ON INFORMATION | | | | | | |
| 1. PROGRAM CODE(S) 2. PRIORITY 01100, 03520, 22110 3 | 3. LICENSEE CONTAC Andrew G. We | т Iding | 4. TELEPHONE NUMBER (574) 631-5037 | | | | | |
| ✓ Main Office Inspection | Next Inspection | Date: 10/23/202 | 21 | | | | | |
| Field Office Inspection Main Campu | ıs & 929 Eddy St. S | South Bend, IN | | | | | | |
| Temporary Job Site Inspection | | | | | | | | |
| | PROGRAM SC | COPE | | | | | | |
| (cont'd. from previous page) | | | | | | | | |
| The inspector reviewed two security-related violations (SLIV) cited in IR 03000694/2015001(DNMS) (ML16012A445) and determined that corrective actions were completed as described and that the violations had not recurred. Based on this, the violations are closed. No violations of NRC requirements were identified during this inspection. | | | | | | | | |
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