August 28, 2007

MEMORANDUM TO:	Terrence Reis, Chief Reactor Inspection Branch Division of Inspection and Regional Support Office of Nuclear Reactor Regulation
FROM:	David W. Pstrak, Chief /RA/ Rules, Inspections and Operations Branch Division of Spent Fuel Storage and Transportation Office of Nuclear Material Safety and Safeguards
SUBJECT:	TEMPORARY INSTRUCTION 2515/161 - TRANSPORTATION OF REACTOR CONTROL ROD DRIVES IN TYPE A PACKAGES - FINAL REPORT

Temporary Instruction (TI) 2515/161, Transportation of Reactor Control Rod Drives in Type A Packages, was issued on March 30, 2005. This TI directed the regional staff to obtain site-specific information regarding the shipment of control rod drive mechanisms in Department of Transportation Type A packages from power reactors. Activities directed by the TI have been completed. Please find enclosed a final report which summarizes the information collected under the TI, and an Office of Nuclear Reactor Regulation Document Issuing Form which requests deletion of the TI.

Enclosures: 1. Final Report 2. NRR DIF

CONTACT: Eric H. Reber 301-492-3280 exr5@nrc.gov

MEMORANDUM TO:	Terrence Reis, Chief Reactor Inspection Branch Division of Inspection and Regional Support Office of Nuclear Reactor Regulation
FROM:	David W. Pstrak, Chief /RA/ Rules, Inspections and Operations Branch Division of Spent Fuel Storage and Transportation Office of Nuclear Material Safety and Safeguards
SUBJECT:	TEMPORARY INSTRUCTION 2515/161 - TRANSPORTATION OF REACTOR CONTROL ROD DRIVES IN TYPE A PACKAGES - FINAL REPORT

Temporary Instruction (TI) 2515/161, Transportation of Reactor Control Rod Drives in Type A Packages, was issued on March 30, 2005. This TI directed the regional staff to obtain site-specific information regarding the shipment of control rod drive mechanisms in Department of Transportation Type A packages from power reactors. Activities directed by the TI have been completed. Please find enclosed a final report which summarizes the information collected under the TI, and an Office of Nuclear Reactor Regulation Document Issuing Form which requests deletion of the TI.

Enclosures:

1. Final Report

2. NRR DIF

CONTACT: Eric H. Reber 301-492-3280 <u>exr5@nrc.gov</u>

C:\Documents and Settings\sih\Application Data\NRC\ADAMSDesktop\Cache\ML0724700611.wpd

OFC:	SFST	SFST E		
NAME:	EReber	DPstrak		
DATE:	08/21/07	8/28/07		

OFFICIAL RECORD COPY Temporary Instruction 2515/161

Transportation of Reactor Control Rod Drives in Type A Packages

Final Report

Objective

The objective of this report is to document the information gathered as directed by Temporary Instruction 2515/161 (TI), Transportation of Reactor Control Rod Drives in Type A Packages. This report is intended to fulfill the requirement in Section 0040-007 of NRC Inspection Manual Chapter 0040 for the preparation of a final report documenting the results of TIs.

Temporary Instruction 2515/161

The objective of the TI was to obtain site-specific information regarding the shipment of Control Rod Drive (CRD) mechanisms in Department of Transportation (DOT) Specification 7A, Type A packages from power reactors holding Part 50 licenses from Calendar Year (CY) 2002 to the time of the review of the issue. In most cases, regional activities associated with this TI were carried out in CY2005.

The TI called for the gathering of information in two phases. During Phase I, NRC regional inspectors determined whether licensees had packaged and shipped irradiated CRDs in DOT Specification 7A, Type A packages. If shipments of this type had been made, Phase II was implemented in which inspectors evaluated whether the shipments were made in accordance with NRC/DOT transportation requirements.

Information Collected

The information collected under this TI was documented in the resident inspector's integrated inspection reports (i.e., quarterly inspection reports). Information gathering commenced when the TI was issued on March 30, 2005, and was completed in approximately one year. A summary of this information is presented in Attachment 1, Tables 1 through 4 for the four NRC regional offices. Documentation from individual inspection reports where non-compliance was identified during Phase II is presented in Attachment 2.

<u>Analysis</u>

Irradiated CRDs were shipped in Type A packages from 14 power reactors during the time period covered by the TI. No findings of significance were identified during the review of these shipments. However, violations of minor significance and non-cited violations were identified at five reactor facilities for non-compliance with the DOT requirement that shippers maintain Type A package documentation for shipments that have been made. Non-cited violations were identified at two facilities for failures to close Type A packages in accordance with package specifications.

Conclusion

The activities directed by the TI have been completed, and therefore, it should be deleted. Further actions that may be taken to address the issues of non-compliance identified under the TI will be addressed separately.

Attachment 1 - Summary of Information Collected

Region I Results - TI 2515/161

Plant	Phase I - CRD Shipment in Type A Package	Phase II Non-Compliance
Beaver Valley	N	N/A
Calvert Cliffs	N	N/A
FitzPatrick	Y	Ν
Ginna	N	N/A
Hope Creek	Y	Ν
Indian Point	Ν	N/A
Limerick	Y	Ν
Millstone	Ν	N/A
Nine Mile Point	Y	Y (See below)
Oyster Creek	Y	N
Peach Bottom	Y	Y (see below)
Pilgrim	Y	Ν
Salem	Ν	N/A
Seabrook	N	N/A
Susquehanna	N	N/A
Three Mile Island	N	N/A
Vermont Yankee	N	N/A
Yankee Rowe	N	N/A
Haddam Neck	N	N/A
Maine Yankee	N	N/A

Nine Mile Point: Shipment of CRDs in Type A packages without package documentation (Green NCV) Peach Bottom: During previous inspection, failure to close CRD in accordance with package specifications (Green NCV)

Region	11	Results	- TI	2515/161
--------	----	---------	------	----------

Plant	Phase I - CRD Shipment in Type A Package	Phase II Non-Compliance	
Browns Ferry	Ν	N/A	
Brunswick	N	N/A	
Catawba	N	N/A	
Crystal River	Y	N	
Farley	N	N/A	
Harris	N	N/A	
Hatch	Y	- Y (See Below)	
McGuire	Ν	N/A	
North Anna	N	N/A	
Oconee	Ν	N/A	
Robinson	N	N/A	
Saint Lucie	Ν	N/A	
Sequoyah	N	N/A	
Summer	N	N/A	
Surry	N	N	
Turkey Point	N	N/A	
Vogtle	N	N/A	
Watts Bar	N	N/A	

Hatch: Failure to close package in accordance with specifications, and shipment of CRDs in Type A packages without package documentation (Green NCV)

Plant	Phase I - CRD Shipment in Type A Package	Phase II Non-Compliance	
Braidwood	N	N/A	
Byron	N	N/A	
Clinton	Y	Y (See Below)	
D.C. Cook	Ν	N/A	
Davis-Besse	Ν	N/A	
Dresden	Y	N	
Duane Arnold	N	N/A	
Fermi	N .	N/A	
Kewaunee	N	N/A	
La Salle	Y	Y (See Below)	
Monticello	N	N/A	
Palisades	N	N/A	
Perry	. N	N/A	
Point Beach	N	N/A	
Prairie Island	N	N/A	
Quad Cities	Υ.	Y (See Below)	
Big Rock Point	N	N/A	
Dresden	N	N/A	
Fermi	N	N/A	
Lacrosse	N	N/A	
Zion	N	N/A	

J.

i.

Clinton, LaSalle, and Quad Cities: Shipment of CRDs in Type A packages without package documentation (Violations of minor significance)

Region IV	'Results -	TI 2515/161
-----------	------------	-------------

Plant	Phase I - CRD Shipment in Type A Package	Phase II Non-Compliance
Arkansas Nuclear	Nuclear N N/A	
Callaway	N	N/A
Columbia Generating Station	N	N/A
Comanche Peak	N	N/A
Cooper	N	N/A
Diablo Canyon	N	N/A
Fort Calhoun	Ν	N/A
Palo Verde 1	N	N/A
River Bend 1	N	N/A
San Onofre	Y	N
South Texas	N	N/A
Waterford 3	N	N/A
Wolf Creek 1	N	N/A
Humboldt Bay	N	N/A
Rancho Secco	N	N/A
Trojan	Ν	N/A

.

.

•

Attachment 2 - Non-Compliance Documentation

July 18, 2005

Mr. James A. Spina Vice President Nine Mile Point Nine Mile Point Nuclear Station, LLC P.O. Box 63 Lycoming, NY 13093

SUBJECT: NINE MILE POINT NUCLEAR STATION - NRC INTEGRATED INSPECTION REPORT 05000220/2005003 and 05000410/2005003

Dear Mr. Spina:

On June 30, 2005, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Nine Mile Point Nuclear Station (NMPNS) Units 1 and 2. The enclosed integrated inspection report documents the inspection results, which were discussed on July 15, 2005, with Mr. Tim O'Connor and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

This report documents one NRC-identified finding of very low safety significance (Green). The finding was determined to involve a violation of NRC requirements. However, because of the very low safety significance and because the violation was entered into your corrective action program, the NRC is treating this violation as a non-cited violation (NCV) consistent with Section VI.A of the NRC Enforcement Policy. If you contest the NCV in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN.: Document Control Desk, Washington, D.C. 20555-0001; with copies to the Regional Administrator Region I; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001; and the NRC Resident Inspector at Nine Mile Point.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publically Available Records (PARS) component of

Mr. James A. Spina

NRC's document system (ADAMS). ADAMS is accessible from the NRC Website at <u>http://www.nrc.gov/reading-rm/adams.html</u> (the Public Electronic Reading Room).

Sincerely,

/RA/

James M. Trapp, Chief Projects Branch 1 Division of Reactor Projects

Docket Nos.: 50-220, 50-410 License Nos.: DPR-63, NPF-69

Enclosure: Inspection Report 05000220/2005003 and 05000410/2005003 w/Attachment: Supplemental Information

<u>cc w/encl</u>:

M. J. Wallace, President, Constellation Generation

M. Heffley, Senior Vice President and Chief Nuclear Officer

C. W. Fleming, Esquire, Senior Counsel, Constellation Energy Group, LLC

M. J. Wetterhahn, Esquire, Winston and Strawn

Mr. William Flynn, President, New York State Energy, Research, and Development Authority

J. Spath, Program Director, New York State Energy Research and Development Authority

P. D. Eddy, Electric Division, NYS Department of Public Service

C. Donaldson, Esquire, Assistant Attorney General, New York Department of Law Supervisor, Town of Scriba

T. Judson, Central NY Citizens Awareness Network

D. Katz, Citizens Awareness Network

J. R. Evans, LIPA

C. Adrienne Rhodes, Chairman and Executive Director, State Consumer Protection Board

Mr. James A. Spina

Distribution w/encl: S. Collins, RA M. Dapas, DRA J. Trapp, DRP C. Khan, DRP S. Lee, RI OEDO R. Laufer, NRR T. Coburn, PM, NRR G. Hunegs, SRI - Nine Mile Point B. Fuller, RI - Nine Mile Point E. Knutson, RI - Nine Mile Point K. Kolek, DRP, OA Region I Docket Room (with concurrences)

DOCUMENT NAME: E:\Filenet\ML051990502.wpd

SISP Review Complete: JMT (Reviewer's Initials)

After declaring this document "An Official Agency Record" it will be released to the Public. To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy

OFFICE	RI/DRP	RI/DRP		
NAME	GHunegs/GKH	JMTrapp/JMT1		
DATE	07/18/05	07/18/05		

OFFICIAL RECORD COPY

40A5 Other Activities

7. TI 2515/161, Transportation of Reactor Control Rod Drives in Type A Packages

a. Inspection Scope

Through inspection and interviews of cognizant personnel, the inspectors examined site specific records pertaining to the licensee's use of DOT Specification 7A Type A packaging for the shipment of Control Rod Drive Mechanisms (CRDM) for the period between CY 2002 and the present. The inspectors examined records for the purpose of determining the licensee's compliance with DOT transportation requirements contained in 49 CFR Parts 173.412 and 173.415. The inspectors determined that Nine Mile Point had undergone refueling activities between January 1, 2002, and the present; and that it had shipped irradiated control rod drives in Department of Transportation (DOT) Specification 7A, Type A packaging.

b. Findings and Observations

No findings of significance were identified.

Title 10 CFR 71.5 requires that NRC licensees comply with all applicable rules and regulations of the DOT when transporting Class 7 materials. DOT regulations contained in 49 CFR 173.415(a) requires that the shipper of a Specification 7A package <u>have available complete documentation</u> of tests and an engineering evaluation or comparative data showing that the construction methods, packaging design, and materials of construction comply with Specification 7A. Contrary to this requirement, Nine Mile Point shipped Class 7 materials, i.e., control rod drives, in Specification 7A packaging in the years 2004-2005 without having available documentation supporting the Specification 7A classification of the package. Although this issue should be corrected, it constitutes a violation of minor significance that is not subject to enforcement action in accordance with Section IV of the Enforcement Policy.

The inspectors reviewed the documentation files for the three irradiated control rod drive shipments made by the licensee in 2004 and 2005. In each instance, the licensee utilized a Specification 7A packaging. Review of these files, together with discussions with licensee personnel and management indicated that the licensee did not have available complete documentation of tests and an engineering evaluation or comparative data showing that the construction methods, packaging design, and materials of construction comply with Specification 7A, as required under Title 49, Code of Federal Regulations (CFR), Part 173.415(a).

The licensee reused DOT Specification 7A packaging from General Electric, which were utilized to transport refurbished control rod drives to the licensee in support of refueling outages. These packaging were reloaded with used control rod drives, which were then transported offsite. A review of these shipments indicated that no packages contained more than four used control rod drives, that the package gross weight did not exceed

ML051990502

7200 pounds, and that all other requirements for the transport of Class 7 material, as specified in 49 CFR Parts 100-177 were met.

This issue was screened in accordance with Manual Chapter 0612, Power Reactor Inspection Reports, Appendix B (Issue Screening). This issue is a performance deficiency, in that the licensee did not meet a requirement [49CFR173.415(a)]. The issue is not subject to traditional enforcement, in that it did not involve an actual safety consequence, did not have the potential to impact the NRC's ability to perform its regulatory function, and had no willful aspects. The issue is not more than minor in that: it cannot be reasonably viewed as a precursor to a more significant event; would not become a more significant safety concern if left uncorrected; is not related to a performance indicator; does not affect the public radiation cornerstone objective of ensuring adequate protection of public health and safety from exposure to radioactive materials released into the public domain as the result of routine civilian nuclear reactor operation; and, does not relate to maintenance risk assessment or risk management.

Nine Mile Point initiated actions to determine if other Specification 7A packaging were utilized without having the appropriate support documentation available, to determine if any additional shipments of irradiated control rod drives were made in the same Specification 7A packaging in earlier years (prior to 2004) and will contact the package vendor to obtain the required support documentation. Nine Mile Point entered this matter into its corrective action program (Deviation Event Report 2005-2626).

2. TI 2515/163, Operational Readiness of Offsite Power

The inspectors performed Temporary Instruction 2515/163, "Operational Readiness of Offsite Power." The inspectors collected and reviewed licensee procedures and supporting information pertaining to the offsite power system specifically relating to the areas of offsite power operability, the maintenance rule (10 CFR 50.65), and the station blackout rule (10 CFR 50.63). The inspectors reviewed this data against the requirements of 10 CFR 50.63; 10 CFR 50.65; 10 CFR 50 Appendix A General Design Criterion 17, Electric Power Systems; and Plant Technical Specifications. This information was forwarded to NRR for further review.

<u>(Closed) URI 05000220/2004004-07</u>: Potential of Unqualified Okonite Cable Splices in Drywell

a. Inspection Scope

During the July 2004 environmental qualification (EQ) followup inspection, the inspectors noted that no devices that required EQ inside the drywell were on the licensee's list for cable splice inspection. The licensee initially stated that they did not believe that there were any unqualified cable splices inside the drywell; however, they initiated a corrective action report to conduct a detailed review. Based on the high percentage of inspected cables outside the drywell that contained unqualified cable splices, the inspectors opened an unresolved item for reviewing the licensee's

November 5, 2004

Mr. Christopher M. Crane President and CNO Exelon Nuclear Exelon Generation Company, LLC 200 Exelon Way KSA 3-E Kennett Square, PA 19348

SUBJECT: PEACH BOTTOM ATOMIC POWER STATION - NRC INTEGRATED INSPECTION REPORT 05000277/2004004 AND 05000278/2004004

Dear Mr. Crane:

On September 30, 2004, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at the Peach Bottom Atomic Power Station, Units 2 and 3. The enclosed integrated inspection report documents the inspection findings, which were discussed on October 14, 2004, with Mr. Grimes and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

The report documents one NRC identified finding and one self-revealing finding of very low safety significance (Green). Both findings were determined to involve violations of NRC requirements. However, because of their very low safety significance and because they were entered into your corrective action program, the NRC is treating these findings as non-cited violations (NCVs), in accordance with Section VI.A of the NRC's Enforcement Policy. If you contest any NCVs in this report, you should provide a response with the basis for your denial, within 30 days of the date of this inspection report, to the Nuclear Regulatory Commission, ATTN.: Document Control Desk, Washington, D.C. 20555-0001; with copies to the Regional Administrator, Region I; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, D.C. 20555-0001; and the NRC Resident Inspector at the Peach Bottom facility.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Mr. Christopher M. Crane

2

If you have any questions, please contact me at 610-337-5209.

Sincerely,

/RA/

Mohamed Shanbaky, Chief Projects Branch 4 Division of Reactor Projects

Docket Nos.: 50-277, 50-278 License Nos.: DPR-44, DPR-56

Enclosure: Inspection Report 05000277/2004004 and 05000278/2004004 w/Attachment: Supplemental Information

cc w/encl:

Chief Operating Officer, Exelon Generation Company, LLC Site Vice President, Peach Bottom Atomic Power Station Plant Manager, Peach Bottom Atomic Power Station **Regulatory Assurance Manager - Peach Bottom** Senior Vice President, Nuclear Services Vice President, Mid-Atlantic Operations Vice President - Operations Support Vice President - Licensing and Regulatory Affairs Director, Licensing and Regulatory Affairs, Exelon Generation Company, LLC Manager, Licensing - Peach Bottom Atomic Power Station Manager License Renewal Vice President, General Counsel and Secretary Associate General Counsel, Exelon Generation Company J. Bradley Fewell, Assistant General Counsel, Exelon Nuclear D. Quinlan, Manager, Financial Control, PSEG R. McLean, Power Plant and Environmental Review Division Director, Nuclear Training **Correspondence Control Desk** D. Allard, Director, Pennsylvania Bureau of Radiation Protection R. Fletcher, Department of Environment, Radiological Health Program Commonwealth of Pennsylvania (c/o R. Janati, Chief, Division of Nuclear Safety, Pennsylvania Bureau of Radiation Protection) Public Service Commission of Maryland, Engineering Division Board of Supervisors, Peach Bottom Township D. Levin, Acting Secretary of Harford County Council Mr. & Mrs. Dennis Hiebert, Peach Bottom Alliance TMI - Alert (TMIA) J. Johnsrud, National Energy Committee, Sierra Club Mr. & Mrs. Kip Adams T. Snyder, Director, Air and Radiation Management Administration, Maryland Department of the Environment (SLO)

Mr. Christopher M. Crane

Distribution w/encl: (via E-mail) S. Collins, RA J. Wiggins, DRA M. Shanbaky, DRP A. Burritt, DRP C. Smith, DRP - NRC Senior Resident Inspector D. Schroeder, DRP - NRC Resident Inspector S. Schmitt, DRP - NRC Resident OA J. Jolicoeur, RI OEDO J. Clifford, NRR G. Wunder, PM, NRR T. Tate, PM, NRR (Backup) T. Kim, Director, DOC

Region I Docket Room (with concurrences)

DOCUMENT NAME: G:\DRP\BRANCH4\Inspection Reports\PB\PB IR2004-004.wpd After declaring this document "An Official Agency Record" it <u>will</u> be released to the Public. <u>To receive a copy of this document, Indicate in the box: "C" = Copy without attachment/enclosure</u> "E" = Copy with attachment/enclosure "N" = No copy

OFFICE	RI/DRP	RI/DRP	RI/DRP	
NAME	Bwelling/ALB1 f/	Aburritt/ALB1	MShanbaky/MMS1	
DATE	11/05/04	11/05/04	11/05/04	

OFFICIAL RECORD COPY

b. <u>Findings</u>

No findings of significance were identified.

Cornerstone: Public Radiation Safety [PS]

2PS2 Radioactive Material Processing and Transportation (71122.02 - 2 Samples)

1. Improper Closure of Department of Transportation Type A Packages

a. Inspection Scope

The inspector directly observed the loading and closure of two non-excepted shipments of radioactive material (PW-04-018, PW-04-019) in Department of Transportation (DOT) Specification 7A packages. The inspector selectively reviewed packaging, ongoing radiation surveys, markings, placarding, vehicle checks, emergency instructions, disposal manifests, shipping papers provided to the driver, and Exelon verification of shipment readiness. The inspector selectivity reviewed the qualification of the packages as Specification 7A packages and reviewed the package loading and closure procedures to determine if the procedures were consistent with the vendor's approved procedures. This inspection activity represented two samples.

The inspector observed the radiation workers during conduct of the radioactive material shipping activities for the above two shipments to determine if the shippers were knowledgeable of shipping regulations and whether shipping personnel demonstrated adequate skills to accomplish the package preparation requirements for public transport. The inspector selectively reviewed the training of personnel conducting the package loading, closure, survey, and shipping activities relative to the training specified in NRC Bulletin 79-19 and 49 CFR 172, Subpart H.

The inspector selectively reviewed the loading of Unit 2 control rod drives into Department of Transportation Type A packages and the closure of the packages.

The review was against criteria contained in 10 CFR 20; 10 CFR 71; applicable Department of Transportation requirements, as contained in 49 CFR 170-189; station procedures; and applicable Certificates of Compliance or vendor procedures.

b. Findings

Introduction. A Green NCV of 10 CFR 71.5 was identified by the NRC associated with workers not properly closing a Type A shipping package (control rod drive shipment box) as required by 49 CFR 173.475 ©) during CRD loading and closure activities on September 20, 2004.

<u>Description</u>. On September 20, 2004, the inspector observed Exelon workers removing control rod drives from the Unit 2 reactor and packaging them in DOT Type A packages (Model IAEA-102.2-3.5-7A-TRF, Spec -01-1524) for eventual shipment offsite. The

inspector observed what appeared to be hand tightening of the internal horizontal CRD hold-down supports. The inspector questioned the apparent hand tightening activity and asked to see the loading and closure procedure for this DOT Type A package to ascertain the specific loading and closure instructions for this package. The inspector determined, after subsequent review, that Exelon was hand tightening the nuts and then tightly securing, both the hold-down supports and closure T-bolts, of the package. The inspector noted that a torque value was not specified for the hold-down supports. However, the package closure T-bolts were to be torqued to values specified in vendor instruction CHP-100, Container Handling and Maintenance. Additional inspector review identified that Exelon had developed a procedure, which was used for loading and closure of the CRD package. However, the package torque value was not used in Exelon's approved loading and closure procedure (RP-AA-602, Rev.7) and Exelon was not able to identify if torque values met specified values at the time of closure. Further, previous shipments had been made with no apparent torque values specified for the T-bolts. However, the bolts were tightly secured.

<u>Analysis.</u> Exelon not properly closing the DOT Type A package, in accordance with 10 CFR 71.5, 49 CFR 173.475, and the vendor procedure, is a performance deficiency since Exelon did not close the package in accordance vendor's instructions and the improper closure was reasonably within Exelon's ability to detect and correct. Traditional enforcement does not apply since the finding did not have any actual safety consequence, did not impact NRC's regulatory function, and was not willful.

The finding was greater than minor, in that it is associated with the public radiation safety cornerstone. The cornerstone objective was affected because the issue involved an occurrence in the radioactive material transportation program that was contrary to NRC or Department of Transportation regulations. Specifically, Exelon did not ensure the DOT Type A package was properly closed. Using the Public Radiation Safety Significance Determination Process (SDP) flow chart, the finding is of very low safety significance (Green), in that; it did involve a radioactive material control issue, it did involve transportation, it did not involve a radiation limit being exceeded or a breach of packaging, but it did involve a use issue, in that it involved compliance with vendor use procedures. In addition, the identified packages were not shipped offsite and the previous shipments made had arrived at their destination with no external contamination indicating no loss of package integrity.

<u>Enforcement.</u> 10 CFR 71.5 requires licensees to conform with the regulations in DOT 49 CFR Parts 170 through 189. 49 CFR 173.475©.) requires that special instructions for closing of the package be followed. On September 20, 2004, and for other previous shipments, Exelon did not follow the package vendor special instructions to close a DOT Type 7A package for shipment, in that specified torque values for package closure was not used.

Exelon documented this issue in its corrective action program (AR 255799), and did not ship the specific packages. Exelon also reviewed previous shipments for anomalies and no external contamination was identified. Consequently, no actual safety consequence was identified. Since this violation is of very low safety significance (Green) and Exelon

20

entered the finding into its corrective action program, this violation is being treated as a Non-Cited violation, consistent with Section VI.A of the NRC Enforcement Policy: NCV 05000277/2004004-02, Failure to Follow DOT Package Closure Requirements.

2. Shipment Records and Documentation (71122.02 - 1 Sample)

a. Inspection Scope

The inspector reviewed the records associated with the two non-excepted shipments of radioactive material as discussed above. This inspection activity represented one sample. The following aspects of the radioactive waste, radioactive material packaging, and radioactive material shipping activities were reviewed.

- Implementation of applicable shipping requirements, including completion of shipping paper/disposal manifest
- Inclusion of emergency response information and 24-hour contact number
- Classification and characterization of waste relative to 10 CFR 61.55 and 61.56

The review was against criteria contained in 10 CFR 20; 10 CFR 61; 10 CFR 71; applicable DOT requirements, as contained in 49 CFR for the above areas; station procedures; applicable disposal facility licenses; and applicable vendor procedures for shipping cask.

b. <u>Findings</u>

No findings of significance were identified.

- 3. Identification and Resolution of Problems
- a. <u>Inspection Scope</u> (71122.02 1 Sample)

The inspector selectively reviewed corrective action documents associated with radioactive waste packaging and shipping activities (ARs 220931, 238826, 238829, 238841, 240959) to verify that identified issues were being included in the corrective action program for evaluation and resolution, as appropriate. This inspection activity represented one sample.

The review was against criteria contained in 10 CFR 20 Appendix G and applicable station procedures.

b. Findings

No findings of significance were identified.



NUCLEAR REGULATORY COMMISSION

REGION II SAM NUNN ATLANTA FEDERAL CENTER 61 FORSYTH STREET, SW, SUITE 23T85 ATLANTA, GEORGIA 30303-8931

April 29, 2005

Southern Nuclear Operating Company, Inc. ATTN: Mr. H. L. Sumner Vice President - Hatch Project P. O. Box 1295 Birmingham, AL 35201-1295

SUBJECT: EDWIN I. HATCH NUCLEAR PLANT - NRC INTEGRATED INSPECTION REPORT 05000321/2005002, 05000366/2005002, AND 072000036/2005001

Dear Mr. Sumner:

CLEAR REGULA

STATES

On March 31, 2005, the U. S. Nuclear Regulatory Commission (NRC) completed an inspection at your Edwin I. Hatch Nuclear Plant, Units 1 and 2. The enclosed integrated inspection report documents the inspection findings, which were discussed on April 7, 2005, with Mr. Dennis Madison and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

This report documents one NRC-identified finding of very low safety significance (Green) which was determined to involve a violation of NRC requirements. Because this violation is of very low safety significance and was entered into your corrective action program, the NRC is treating this violation as a non-cited violation (NCV) consistent with Section VI.A of the NRC Enforcement Policy. If you contest this NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the United States Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region II; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Hatch Nuclear Plant.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response (if any) will be available electronically for public inspection in the

HATCH NIPP. Inspection Report Docume 05000321/366. (ML051190731) A ADAINJ.

Implementation and effectiveness of selected program initiatives with respect to sourceterm reduction were evaluated. Chemistry program ALARA initiatives and their effect on Unit 2 drywell dose rate trends were reviewed. The effectiveness of temporary shielding installed for the current outage was assessed through review of shielding request packages and pre-shielding versus post-shielding dose rate data. The inspectors also reviewed the results of pipe flushing to reduce Unit 2 reactor nozzle dose rates.

Plant exposure history for 2001 through 2003 and data reported to the NRC pursuant to 10 CFR 20.2206 were reviewed as were established goals for reducing collective exposure during the refueling outage. The inspectors reviewed procedural guidance for dosimetry issuance and exposure tracking. The inspectors also examined dose records of declared pregnant workers to evaluate assignment of gestation dose. In addition, selected individual access records were reviewed for dose received during work in areas with high dose rate gradients.

ALARA program activities and their implementation were reviewed against 10 CFR Part 20, and approved procedures. In addition, licensee performance was evaluated against guidance contained in Regulatory Guide (RG) 8.8, Information Relevant to Ensuring that Occupational Radiation Exposures at Nuclear Power Stations will be As Low As Reasonably Achievable, and RG 8.13, Instruction Concerning Prenatal Radiation Exposure. Documents reviewed are listed in the Attachment.

<u>Problem Identification and Resolution</u>. The inspectors reviewed five CRs, two self-assessments, and one corporate audit in the area of exposure control. The inspectors evaluated the licensee's ability to identify, characterize, prioritize, and resolve the identified issues in accordance with procedure NMP-GM-002-GL02. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

2PS2 Radioactive Material Processing and Transportation

a. Inspection Scope

<u>Waste Processing and Characterization</u>. The inspectors reviewed and discussed the currently installed radwaste processing systems as described in the FSAR, Section 11. In addition, stored and disposed radwaste types and quantities as documented in Effluent Release Report for 2004 were discussed with responsible licensee representatives.

The operability and configuration of selected liquid and solid radioactive radwaste processing systems and equipment were evaluated. Inspection activities included document review, interviews with plant personnel, and direct inspection of processing equipment and piping. The inspectors directly observed equipment material condition and configuration for liquid and solid radwaste processing systems and licensee staff were interviewed regarding equipment function and operability. The licensee's policy regarding abandoned radwaste equipment was reviewed and discussed with cognizant

Enclosure Continued on page 12 to 14

licensee representatives. Operations staff were interviewed to assess knowledge of radwaste system processing operations. Procedural guidance involving resin dewatering activities and filling of waste packages was reviewed for consistency with the licensee's Process Control Program and FSAR details.

Licensee radionuclide characterizations of each major waste stream were evaluated. For dry active waste (DAW), primary resin, secondary resin, and filters, the inspectors evaluated PCP and licensee procedural guidance against 10 CFR 61.55 and the Branch Technical Position on Radioactive Waste Classification details. Part 61 data and scaling factors were reviewed and discussed with licensee representatives for radwaste processed or transferred to licensed burial facilities for the period January 1, 2003, through January 31, 2005. The licensee's analyses and current scaling factors for quantifying hard-to-detect nuclides were assessed. The inspectors discussed potential for changes plant operating conditions and reviewed selected DAW waste stream radionuclide data to determine if known plant changes were assessed and radionuclide composition remained consistent for the period reviewed. Documents reviewed are listed in the Attachment.

<u>Transportation</u>. The inspectors evaluated licensee activities related to transportation of radioactive material. The evaluation included review of shipping records and procedures, assessment of worker training and proficiency, and direct observation of shipping activities.

The inspectors assessed shipping-related procedures for compliance to applicable regulatory requirements. Selected shipping records were reviewed for completeness and accuracy, and for consistency with procedures. Training records for individuals qualified to ship radioactive material were checked for completeness. In addition, specific training curricula provided to maintenance workers were assessed. For a shipment of radioactive waste resin to a processing vendor and a shipment of CRDM equipment to a refurbishment facility, the inspectors directly observed initial package preparation; independently verified results of contamination and direct radiation surveys; evaluated shipping paperwork for completeness; and assessed initial loading, bracing, and placarding of the transport vehicles. Responsible staff were interviewed to assess their knowledge of package preparation specifications, and applicable radiation and contamination control limits.

Transportation program guidance and implementation were reviewed against regulations detailed in 10 CFR 71, and 49 CFR 170-189 and applicable procedures. In addition, training activities were assessed against 49 CFR 172 Subpart H, and the guidance documented in NRC Bulletin 79-19. Documents reviewed are listed in the Attachment.

<u>Problem Identification and Resolution</u>. Licensee CAP documents associated with radwaste processing and transportation activities were reviewed and assessed. The inspectors evaluated the licensee's ability to identify, characterize, prioritize, and resolve the identified issues in accordance with procedure NMP-GM-002-GL02. Documents reviewed are listed in the Attachment.

ML051190731

b. Findings

Introduction. A Green NRC-identified non-cited violation (NCV) of 10 CFR 71.5 was identified for failure to implement current package design specifications for proper closing of Type A shipping packages (CRDM shipment boxes) as required by DOT regulations. Specifically, for Type A packages containing CRDM equipment shipped between January 2003 and February 2005, the licensee failed to prepare the package closures in accordance with vendor package specifications as required by 49 CFR 173.475(e).

Description. The inspectors identified significant differences in selected package certification details, design/testing specifications, and associated drawings referenced within container certification and engineering evaluations maintained by the licensee for use in preparation of CRDM equipment DOT Type A packages (Model IAEA-102.2-3.5-7A-TRF). These Type A packages were being used for shipment of CRDM equipment. Subsequent calls to the vendor supplying the Type A packages resulted in receipt of current and accurate package certification and engineering evaluation documentation. The inspectors noted that the documents provided required package preparation specifications including package maximum weight and lid closure device (T-bolt) torgue values and configuration requirements, i.e., required types and numbers, and conditions of the washers used for final lid closure assembly. From review and discussion of quality control documents associated with previous Type A package CRDM equipment shipments made between January 2003 and February 2005, the inspectors noted that required lid closure device torque values and assembly configurations were not specified. Licensee representatives stated that previous package preparation guidance did not specify a required closure torque value nor a closure device configuration, but only required the verification that the 'T-bolts' and lid were secured tightly. After this issue was identified, the inspectors observed subsequent shipment packaging for CRDM equipment and verified that the licensee's preparation met the current and approved engineering document specifications.

<u>Analysis</u>. This finding is more than minor because it is associated with the public radiation cornerstone program and process attribute and it affected the cornerstone objective to ensure adequate protection of public health and safety from exposure to radioactive material released into the public domain. The issue was reviewed using the Public Radiation Safety Significance Determination Process and was <u>determined to be</u> of very low safety significance (Green) because a radiation limit was not exceeded nor was the packaging breached. In addition, previous shipments made by the licensee had arrived at their destination with no identified degradation of the subject packaging and immediate corrective actions assured that on-going CRDM equipment packages were prepared properly prior to shipment.

Enforcement. 10 CFR 71.5 requires licensees to conform with the regulations in DOT 49 CFR Parts 170 through 189. For Type A package shipments, 49 CFR 173.415(a) requires each offeror of a Specification 7A Type A package to maintain complete documentation of tests and engineering evaluation or comparative data showing the construction methods, packaging design and materials of construction to comply with that specification for at least one year after the latest shipment. Further, 49 CFR 173.475(e) requires that each special instruction for closing and preparation of a

ML05/190731

Enclosure

deficiency

package be followed. For shipments of Type A CRDM packages made between January 2003 and February 2005, the licensee failed to implement current design document specifications for closure of the DOT Type 7A packages, in that, T-bolt torque values and closure assembly specifications for package closure were not met. The licensee documented this issue in its CAP as CR No. 2005101950. Since this violation is of very low safety significance and the licensee entered the finding into its CAP, this violation is being treated as a NCV consistent with Section VI.A of the NRC Enforcement Policy: NCV 05000321, 366/2005002-01, Failure to Implement Appropriate DOT Type A Package Closure Requirements.

4. OTHER ACTIVITIES

40A1 Performance Indicator (PI) Verification

a. Inspection Scope

The inspectors sampled licensee data for the PIs listed below. To verify the accuracy of the PI data reported, PI definitions and guidance contained in NEI 99-02, "Regulatory Assessment Indicator Guideline," Rev. 2, were used to screen each data element.

Public Radiation Safety Cornerstone

RETS/ODCM Effluent Occurrence

The inspectors reviewed the PI results for the period April 2004 through December 2004. For the assessment period, the inspectors reviewed cumulative and projected doses to the public, out-of-service effluent radiation monitors and selected compensatory sampling data, and two CRs related to RETS/ODCM issues. The inspectors also reviewed licensee procedural guidance for collecting and documenting PI data. Documents reviewed are listed in the Attachment.

Occupational Radiation Safety Cornerstone

Occupational Exposure Control Effectiveness

The inspectors reviewed the PI results for the period from April 2004 through December, 2004. For the assessment period, the inspectors reviewed electronic dosimeter alarm logs and two CRs related to controls for exposure significant areas. The inspectors also reviewed licensee procedural guidance for collecting and documenting PI data. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

ML051190731



UNITED STATES NUCLEAR REGULATORY COMMISSION LISLE, ILLINOIS 60532

October 11, 2005

MEMORANDUM TO:

Mark Ring, Chief Projects Branch 1 Division of Reactor Projects

FROM:

Steven Orth, Team Leader /RA/ Plant Support Team Division of Reactor Safety

SUBJECT:

CLINTON POWER STATION DRS INPUT TO INTEGRATED REPORT 50-461/05-08

Attached is the report input for Clinton Power Station Inspection Report 50-461/05-08. Specifically, this report input focused on Occupational and Public radiation safety in the areas of radiation monitoring instrumentation and radiological environmental monitoring and radioactive material control programs. I have reviewed this input and have determined it is ready for distribution to the licensee and dissemination to the public.

RPS Inputs are as follows:

IP 71121.03, 9 samples were completed, completing the procedure; IP 71122.03, 10 samples were completed, completing the procedure.

Attachment: Input to Inspection Report 50-461/05-08

CONTACT: Mark Mitchell, DRS (630) 829-9855

 DOCUMENT NAME:C:\temp\Clinton Input to Report 05-08 MWM.wpd

 Publicly Available
 Non-Publicly Available
 Non-Sensitive

 To receive a copy of this document, indicate in the concurrence box "C" = Copy without attact/encl "E" = Copy with attact/encl "N" = No copy

 OFFICE
 RIII
 RIII

 NAME
 MMitchell:co
 SOrth

 DATE
 09/29/05
 10/11/05

OFFICIAL RECORD COPY

lts to ficense

.4 Identification and Resolution of Problems

a. Inspection Scope

The inspectors reviewed licensee corrective action documents originated during 2004 and through July 2005, that related to the REMP or to radioactive material control issues. The results of a Nuclear Oversight (NOS) audit and a REMP self-assessment completed in the same time frame were also reviewed, as were the results of a joint nuclear utility audit of the vendor laboratory. These reviews were conducted to determine if the licensee adequately assessed the effectiveness of these programs and whether the licensee, through its corrective action program, identified individual problems and trends, evaluated contributing causes and extent of condition, and developed corrective actions to achieve lasting results. The inspectors also verified that the licensee's self-assessment program was capable of identifying repetitive deficiencies or significant individual deficiencies in problem identification and resolution.

The inspectors also reviewed corrective action reports from the radioactive effluent treatment and monitoring program since the previous inspection, interviewed staff and reviewed documents to determine if the following activities were being conducted in an effective and timely manner commensurate with their importance to safety and risk:

- Initial problem identification, characterization, and tracking;
- Disposition of operability/reportability issues;
- Evaluation of safety significance/risk and priority for resolution;
- Identification of repetitive problems;
- Identification of contributing causes;
- Identification and implementation of effective corrective actions;
- Resolution of non-cited violations (NCVs) tracked in the corrective action system; and
- Implementation/consideration of risk significant operational experience feedback.

This review represented one sample.

Findings

No findings of significance were identified.

40A5 Other Activities

1. TI 2515/161, Transportation of Reactor Control Rod Drives in Type A Packages

a. Inspection Scope

Through inspection and interviews of cognizant personnel, the inspectors <u>examined</u> site specific records pertaining to the licensee's use of DOT Specification 7A Type A packaging for the shipment of Control Rod Drive Mechanisms (CRDM) for the period between CY 2002 and the present. The inspectors examined records for the purpose of determining the licensee's compliance with DOT transportation requirements contained in 49 CFR Parts 173.412 and 173.415. The inspectors verified that Clinton Power Station had undergone refueling activities between January 1, 2002, and the present

and that it had shipped irradiated control rod drives in Department of Transportation (DOT) Specification 7A, Type A packaging.

b. Findings and Observations

No findings of significance were identified.

Title 10 CFR 71.5 requires that NRC licensees comply with all applicable rules and regulations of the DOT when transporting Class 7 materials. DOT regulations contained in 49 CFR 173.415(a) requires that the shipper of a Specification 7A package have available complete documentation of tests and an engineering evaluation or <u>comparative data showing that the construction methods</u>, packaging design, and materials of construction comply with Specification 7A. Contrary to this requirement, Clinton Power Station shipped Class 7 materials, i.e., control rod drives, in Specification 7A packaging in the year 2002 without having available documentation supporting the Specification 7A classification of the package. Although this issue should be corrected, it constitutes a violation of minor significance that is not subject to enforcement action in accordance with Section IV of the Enforcement Policy.

The inspectors reviewed the documentation files for the two irradiated control rod drive shipments made by the licensee in 2002. In each instance, the licensee utilized a Specification 7A packaging. Review of these files, together with discussions with licensee personnel and management indicated that the licensee did not have available complete documentation of tests and an engineering evaluation or comparative data showing that the construction methods, packaging design, and materials of construction comply with Specification 7A, as required under Title 49, Code of Federal Regulations (CFR), Part 173.415(a).

The licensee reused DOT Specification 7A packaging from General Electric, which were utilized to transport refurbished control rod drives to the licensee in support of refueling outages. The packaging was reloaded with used control rod drives, which were then transported offsite. A review of these shipments indicated that no packages contained more than four used control rod drives, that the package gross weight did not exceed 7200 pounds, and that all other requirements for the transport of Class 7 material, as specified in 49 CFR Parts 100-177 were met.

This issue was screened in accordance with Manual Chapter 0612, Power Reactor Inspection Reports, Appendix B (Issue Screening). This issue is a performance deficiency, in that the licensee did not meet a requirement [49CFR173.415(a)]. The issue is not subject to traditional enforcement, in that it did not involve an actual safety consequence, did not have the potential to impact the NRC's ability to perform its regulatory function, and had no willful aspects. The issue is not more than minor in that it cannot be reasonably viewed as a precursor to a more significant event; would not become a more significant safety concern if left uncorrected; is not related to a performance indicator; does not affect the public radiation cornerstone objective of ensuring adequate protection of public health and safety from exposure to radioactive materials released into the public domain as the result of routine civilian nuclear reactor operation; and, does not relate to maintenance risk assessment or risk management. Clinton Power Station initiated actions to determine if other Specification 7A packaging were utilized without having the appropriate support documentation available, to

determine if any additional shipments of irradiated control rod drives were made in the same Specification 7A packaging in earlier years (prior to 2002) and has contacted the package vendor and obtained the required testing documentation. Clinton Power Station entered this matter into its corrective action program (CR 217867).

40A6 Meetings

.2 Interim Exit Meetings

Interim exit meetings were conducted for:

 Occupational Radiation Safety inspection with Mr. M. McDowell, Plant Manager, on August 26, 2005.

LIST OF DOCUMENTS REVIEWED

2OS3 Radiation Monitoring Instrumentation and Protective Equipment

AR 148086; Licensed Personnel Not Qualified to Use Premair Respirator; dated March 6, 2002

AR 185354; Radioactive Material Stored Under SAM-11; dated November 7, 2003

AR 217867; Enhancement of Radioactive Material Shipping Records; dated April 29, 2004

AR 222129; Whole Body Count Not Performed in Accordance With PR-AA-220; dated May 19, 2004

AR 300383; Instrument Efficiency on Data Sheet Incorrect; dated February 11, 2005

AR 310070; Shelf Life of Iodine Cartridges Expired; dated March 8, 2005

AR 352888; Lack of Control of Portable Radiation Protection Instrumentation; dated July 12, 2005

AR 354911; Nuclear Oversight Identified Incorrect Respiratory Equipment Inventory in TSC; dated July 19, 2005

AR 356401; Radiation Detection Instrument Fails During Use; dated July 25, 2005

AR 366076; NRC Identified Housekeeping Issue, Eagle Air Compressor Shed; dated August 23, 2005

CPS 3214.02; Breathing Air; Revision 11b

CPS 711.05; Radiation Protection Department Survey Instruments Response Checks; Revision 9b

October 24, 2005

Mr. Christopher M. Crane President and Chief Nuclear Officer Exelon Nuclear Exelon Generation Company, LLC 4300 Winfield Road Warrenville, IL 60555

SUBJECT: LASALLE COUNTY STATION, UNITS 1 AND 2 NRC INTEGRATED INSPECTION REPORT 05000373/2005004; 05000374/2005004

Dear Mr. Crane:

On September 30, 2005, the U.S. Nuclear Regulatory Commission (NRC) completed an integrated inspection at your LaSalle County Station, Units 1 and 2. The enclosed report documents the results of this inspection, which were discussed on October 13, 2005, with the Site Vice President, Ms. Susan Landahl, and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, two findings of very low safety significance were identified by the NRC. Both of these findings also involved violations of NRC requirements. However, because the findings associated with these violations were of very low safety significance and because the issues were entered into the licensee's corrective action program, the NRC is treating these issues as Non-Cited Violations in accordance with Section VI.A.1 of the NRC's Enforcement Policy. Additionally, one licensee identified violation is listed in Section 40A7 of this report.

If you contest the subject or severity of any Non-Cited Violation in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region III, 2443 Warrenville Road, Suite 210, Lisle, IL 60532-4352; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspectors' Office at the LaSalle County Station.

C. Crane

-2-

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosures will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Bruce L. Burgess, Chief Branch 2 Division of Reactor Projects

Docket Nos. 50-373; 50-374 License Nos. NPF-11; NPF-18

Enclosure: Inspection Report 05000373/2005004; 05000374/2005004 w/Attachment: Supplemental Information

cc w/encl: Site Vice President - LaSalle County Station LaSalle County Station Plant Manager Regulatory Assurance Manager - LaSalle County Station Chief Operating Officer Senior Vice President - Nuclear Services Senior Vice President - Mid-West Regional **Operating Group** Vice President - Mid-West Operations Support Vice President - Licensing and Regulatory Affairs Director Licensing - Mid-West Regional **Operating Group** Manager Licensing - Clinton and LaSalle Senior Counsel, Nuclear, Mid-West Regional **Operating Group Document Control Desk - Licensing** Assistant Attorney General Illinois Emergency Management Agency State Liaison Officer Chairman, Illinois Commerce Commission

DOCUMEN	T NAME:C:\MyFile	s\Roger\M	11052980015.wpd					
Publicly A	vailable	□ Non-F	ublicly Available	Sensitive	🗆 Non-S	Sensitive		
Fo receive a copy of this document, indicate in the concurrence box "C" = Copy without attach/encl "E" = Copy with attach/encl "N" = No copy								
OFFICE	RIII		RIII	RIII		RIII		
NAME	BBurgess:sls							
DATE	10/24/2005							

OFFICIAL RECORD COPY

C. Crane

.

ADAMS Distribution: GYS DMS6 RidsNrrDipmlipb GEG KGO DEK CAA1 C. Pederson, DRS (hard copy - IR's only) DRPIII DRSIII PLB1 JRK1 ROPreports@nrc.gov (inspection reports, final SDP letters, any letter with an IR number) inspection period were considered a part of the original inspection sample, and did not constitute an additional inspection sample for this TI.

.2 <u>Transportation of Reactor Control Rod Drives in Type A Packages</u> (TI 2515/161)

a. <u>Inspection Scope</u>

Through inspection and interviews of cognizant personnel, the inspectors examined site specific records pertaining to the licensee's use of DOT Specification 7A, Type A, packaging for the shipment of control rod drive mechanisms for the period between 2002 and the present. The inspectors examined records for the purpose of determining the licensee's compliance with DOT transportation requirements contained in 49 FR 173.412 and 173.415. The inspectors determined that the licensee had undergone refueling activities between January 1, 2002, and the present; and that they had shipped irradiated control rod drives in DOT Specification 7A, Type A, packaging.

b. Findings and Observations

No findings of significance were identified.

Under 10 CFR 71.5, the NRC requires that licensees comply with all applicable rules and regulations of the DOT when transporting Class 7 materials. DOT regulations contained in 49 CFR 173.415(a) require that the shipper of a Specification 7A package have available complete documentation of tests and an engineering evaluation or comparative data showing that the construction methods, packaging design, and materials of construction comply with Specification 7A. Contrary to this requirement, the licensee shipped Class 7 materials (i.e., control rod drives) in Specification 7A packaging in the vears 2002 through 2005 without having available documentation supporting the Specification 7A classification of the package. This issue constitutes a violation of minor significance that is not subject to enforcement action in accordance with Section IV of the NRC Enforcement Policy. The inspectors reviewed the documentation files for the seven irradiated control rod drive shipments made by the licensee in 2002 through 2005. In each instance, the licensee utilized a Specification 7A packaging. Review of these files, together with discussions with licensee personnel and management, indicated that the licensee did not have available complete documentation of tests and an engineering evaluation or comparative data showing that the construction methods, packaging design, and materials of construction complied with Specification 7A, as required under 49 CFR 173.415(a) for shipments in 2002 and 2003.

The licensee reused DOT Specification 7A packaging from General Electric, which was utilized to transport refurbished control rod drives to the licensee in support of refueling outages. These packages were reloaded with used control rod drives, which were then transported offsite. A review of these shipments indicated that no packages contained more than four used control rod drives, that the package gross weight did not exceed 7200 pounds, and that all other requirements for the transport of Class 7 material, as specified in 49 CFR 100 through 49 CFR 177 were met.

This issue was screened in accordance with Manual Chapter 0612, Power Reactor Inspection Reports, Appendix B, "Issue Screening," and determined to constitute a performance deficiency. Specifically, the licensee did not meet a requirement under 49 CFR 173.415(a). The issue is not subject to traditional enforcement, in that it did not involve an actual safety consequence, did not have the potential to impact the NRC's ability to perform its regulatory function, and had no willful aspects. The inspectors determined that the issue was of minor safety significance in that it could not be reasonably viewed as a precursor to a more significant event; would not become a more significant safety concern if left uncorrected; was not related to a performance indicator; did not affect the public radiation cornerstone objective of ensuring adequate protection of public health and safety from exposure to radioactive materials released into the public domain as the result of routine civilian nuclear reactor operation; and did not relate to maintenance risk assessment or risk management. The licensee initiated actions to determine if other Specification 7A packaging was utilized without having the appropriate support documentation available. To determine if any additional shipments of irradiated control rod drives were made in the same Specification 7A packaging in earlier years, the licensee has contacted the package vendor and obtained the required support documentation. The licensee entered this matter into their corrective action program as IR 230559.

The inspectors completion of this TI represented a single inspection sample.

January 27, 2006

Mr. Christopher M. Crane President and Chief Nuclear Officer Exelon Nuclear Exelon Generation Company, LLC Quad Cities Nuclear Power Station 4300 Winfield Road Warrenville, IL 60555

SUBJECT: QUAD CITIES NUCLEAR POWER STATION, UNITS 1 AND 2 NRC INTEGRATED INSPECTION REPORT 05000254/2005006; 05000265/2005006; 07200053/2005002

Dear Mr. Crane:

On December 31, 2005, the U. S. Nuclear Regulatory Commission (NRC) completed an integrated inspection at your Quad Cities Nuclear Power Station, Units 1 and 2. The enclosed report documents the inspection findings which were discussed on January 10, 2006, with Mr. Tulon and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and to compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, no findings of significance were identified.

ML 060 300042

C. Crane

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at

-2-

http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Mark A. Ring, Chief Branch 1 Division of Reactor Projects

Docket Nos. 50-254; 50-265; 72-053 License Nos. DPR-29; DPR-30

Enclosure: Inspection Report 05000254/2005006; 05000265/2005006; 07200053/2005002 w/Attachment: Supplemental Information

cc w/encl: Site Vice President - Quad Cities Nuclear Power Station Plant Manager - Quad Cities Nuclear Power Station Regulatory Assurance Manager - Quad Cities Nuclear Power Station Chief Operating Officer Senior Vice President - Nuclear Services Senior Vice President - Mid-West Regional Operating Group Vice President - Mid-West Operations Support Vice President - Licensing and Regulatory Affairs Director Licensing - Mid-West Regional Operating Group Manager Licensing - Dresden and Quad Cities Senior Counsel, Nuclear, Mid-West Regional **Operating Group Document Control Desk - Licensing** Vice President - Law and Regulatory Affairs Mid American Energy Company Assistant Attorney General Illinois Emergency Management Agency State Liaison Officer, State of Illinois State Liaison Officer, State of Iowa Chairman, Illinois Commerce Commission D. Tubbs, Manager of Nuclear MidAmerican Energy Company

C. Crane

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <u>http://www.nrc.gov/reading-rm/adams.html</u> (the Public Electronic Reading Room).

Sincerely,

/RA/

Mark A. Ring, Chief Branch 1 Division of Reactor Projects

Docket Nos. 50-254; 50-265; 72-053 License Nos. DPR-29; DPR-30

Enclosure: Inspection Report 05000254/2005006; 05000265/2005006; 07200053/2005002 w/Attachment: Supplemental Information

Site Vice President - Quad Cities Nuclear Power Station cc w/encl: Plant Manager - Quad Cities Nuclear Power Station Regulatory Assurance Manager - Quad Cities Nuclear Power Station Chief Operating Officer Senior Vice President - Nuclear Services Senior Vice President - Mid-West Regional **Operating Group** Vice President - Mid-West Operations Support Vice President - Licensing and Regulatory Affairs Director Licensing - Mid-West Regional **Operating Group** Manager Licensing - Dresden and Quad Cities Senior Counsel, Nuclear, Mid-West Regional **Operating Group** Document Control Desk - Licensing Vice President - Law and Regulatory Affairs Mid American Energy Company Assistant Attorney General Illinois Emergency Management Agency State Liaison Officer, State of Illinois State Liaison Officer. State of Iowa Chairman, Illinois Commerce Commission D. Tubbs, Manager of Nuclear MidAmerican Energy Company

DOCUMENT NAME:E:\Filenet\ML060300042.wpd								
Publicly Available		Non-Publicly Available		0	Sensitive	🗆 Non-S	Non-Sensitive	
To receive a copy of this document, Indicate In the concurrence box "C" = Copy without attach/encl "E" = Copy with attach/encl "N" = No copy								
OFFICE	RIII	RI		Ε	RIII		RIII	
NAME	MRing:sls							-
DATE	01/27/2006							

OFFICIAL RECORD COPY

To: NRR Manual Coordinator

1. Number and Title of Document: **TI 2515/161, Transportation of Reactor Control Rod Drives in Type A Packages**

2.	ADAMS accession numb	er: N/A				
3.	Type of Document					
	 Inspection Manual Cl Appendix Technical Guidance 	napter (IMC)		Inspection Pro Temporary Ins 10 CFR Guida	ocedure (IP) struction (TI) ance	
4.	Type of Action					
	New document	Revision	\boxtimes	Deletion TI (Complete	
5.	ROP Basis					
	All program documents must conform to Inspection Manual Chapter 0308, "Reactor Oversight Process Basis Document."					
	Does the Program Document require a change to the ROP Basis Document?					
	If Yes, then proposed ch IMC 0308, who will, with incorporate the revisions	anges must be at in approximately o into IMC 0308.	ttached a one yea	and submitted r from the date	to the owner of of submission,	
6.	Baseline Inspection Proc	edures: N/A				
,	If a new IP is being pr cornerstone to which it needed to perform the units), and the inspection	epared for the b applies, the est procedure (with frequency.	aseline imated any vari	inspection pro direct inspecti ations for nur	ogram, give the ion effort (DIE) nber of reactor	
Base	line Program: 📋 Yes	No Cornerst	one:			
Frequ	uency of Inspection:		Quarterl	y, annually, bie	ennially, etc.)	
Annu	al average DIE:	1 unit2-	-unit	3-unit sites	i	
7.	New TIs: N/A					
	If a TI is being issued, stat of plants, or specific plants	e the applicability	of the T	I (i.e., number	of plants, types	

- 8. Document Sensitivity
 - ____ Safeguards Information
 - ____ Security-Related SUNSI
 - ____ Other SUNSI
 - X Not Sensitive
- 9. Route the following to the NRR Manual Coordinator: N/A
 - a. An electronic copy of the final version of the document to be issued, accompanied by a signed paper copy of the document issuing form.
 - b. A paper copy of the comment resolution summary (see Exhibit 2), and a paper copy of the final version of the document to be issued, including color copies of any graphics or exhibits that are intended to be shown in color.
 - c. A completed ADAMS Document Submission Form (Form 665P) for the package that will include the final document to be issued and the comment resolution summary.
- 10. List any feedback forms associated with this document revision: None _____
- 11. Is training needed? \Box YES \boxtimes NO

If "YES." Provide the type of training and date of completion:

12. Approval Signatures (Print AND Signature/ Organization)

a. En Alleh	8/21/200	7c.	
Eric H. Reber	/ /	NRR Manual Coordinator	Date
Originator	Date	1	
b. Inut. Vate	8/28/2007	, d.	
Dave Pstrak	. ,	Deputy Director, DIRS	Date
Originator's Supervisor	Date		

<u>Note</u>: When placing the document into ADAMS, ensure that the NRR Inspection Manual Coordinator has "Owner" rights to the document.

END