UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW, SUITE 23T85
ATLANTA, GEORGIA 30303-8931

September 11, 2007

Duke Power Company, LLC
d/b/a Duke Energy Carolinas, LLC
ATTN: Mr. J. R. Morris
Site Vice President
Catawba Nuclear Station
4800 Concord Road
York, SC 29745

SUBJECT: CATAWBA NUCLEAR STATION – INDEPENDENT SPENT FUEL STORAGE INSTALLATION (ISFSI) DRY RUN AND INITIAL LOADING INSPECTION REPORT 05000413/2007011, 05000414/2007011 AND 07200045/2007001

Dear Mr. Morris:

This report covers five visits made by the U.S. Nuclear Regulatory Commission (NRC) to your Catawba Nuclear Station Independent Spent Fuel Storage Installation (ISFSI) between February 26 and July 30, 2007. The purpose of the site visits was to inspect your dry fuel storage preoperational testing activities and to observe your initial fuel loading operation. The initial loading of spent fuel into dry storage occurred from July 24-30, 2007. The enclosed inspection report presents the results of the inspection, which were discussed with you and members of your staff during the exit held on July 30, 2007.

Based on the results of this inspection, the NRC has determined that a violation of NRC requirements has occurred. The violation involved failure to perform indoctrination and training of personnel performing 10 CFR 72.48 reviews and is discussed in the Quality Assurance section of the enclosure.

This Severity Level IV violation is being treated as a Non-Cited Violation (NCV) consistent with Section VI.A. of the Enforcement Policy. The NCV and the circumstances surrounding the violation are described in the subject inspection report. The violation is not being cited, in part, because your staff issued a deficiency report and took appropriate corrective actions to prevent recurrence. If you contest the violation or significance of the NCV, 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 a copy to the Regional Administrator, Region II and the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001 and the NRC Senior Resident Inspector at the Catawba Nuclear Station.

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

Sincerely,

/RA/

Steven Vias, Chief
Technical Support Branch
Division of Reactor Projects

Docket Nos.: 50-413, 50-414, 72-045
License Nos.: NPF-35, NPF-52

Enclosure: Catawba Nuclear Station –Independent Spent Fuel Storage Installation (ISFSI) Dry Run and Initial Loading Inspection Report

w/Attachments: 1. Supplemental Information
2. Inspector Notes

cc w/encl: (See page 3)

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

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Letter to J. R. Morris from S. Vias dated September 11, 2007

SUBJECT: CATAWBA NUCLEAR STATION – INDEPENDENT SPENT FUEL STORAGE INSTALLATION (ISFSI) DRY RUN AND INITIAL LOADING INSPECTION REPORT 05000413/2007011, 05000414/2007011 AND 07200045/2007001

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CATAWBA NUCLEAR STATION - INDEPENDENT SPENT FUEL STORAGE INSTALLATION (ISFSI) DRY RUN AND INITIAL LOADING INSPECTION REPORT

U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos.:	50-413, 50-414, 72-045
License Nos.:	NPF-35, NPF-52
Report No.:	05000413/2007011, 05000414/2007011 AND 07200045/2007001
Licensee:	Duke Power Company, LLC
Facility:	Catawba Nuclear Station ISFSI
Location:	York, SC 29745
Dates:	February 26, 2007 through July 30, 2007
Inspectors:	R. Kellar, P.E., Health Physicist, Inspection Lead, RIV S. Atwater, Health Physicist, RIV R. Eul, Resident Inspector, RII B. Miller, Reactor Inspector, RI J. Nicholson, Health Physicist, RI R. Temps, Senior Safety Inspector, NMSS G. Williams, Resident Inspector, RII
Accompanied By:	J. Sebrosky, Project Manager, NMSS
Approved by:	Steven Vias, Chief Technical Support Branch Division of Reactor Projects, Region II
Attachments:	1) Supplemental Information 2) Inspector Notes

Enclosure

EXECUTIVE SUMMARY

Catawba Nuclear Station
NRC Inspection Report 05000413/2007011; 05000414/2007011; 07200045/2007001

Duke Energy had selected the NAC-UMS storage system for dry storage of spent nuclear fuel at the Catawba Nuclear Station (CNS). The Nuclear Regulatory Commission (NRC) had certified the NAC-UMS system for storage of irradiated fuel under Certificate of Compliance (CoC) No. 72-1015.

The NRC inspection included five onsite visits by inspectors between February 26 and July 30, 2007 to evaluate the licensee's implementation of the NAC-UMS Certificate of Compliance, Technical Specifications and 10 CFR Part 72 requirements. The onsite inspection effort included the following activities:

1) The Unit 2 spent fuel cask crane and crane support structure were inspected on February 26 through March 1, 2007 as part of the heavy loads program. The NUREG 0612 correspondence between the licensee and the agency, the crane maintenance program, the 10 CFR Part 21 repairs of the Whiting crane and the crane load test documentation were all reviewed by the inspectors.

2) Welding of the NAC-UMS canister lids and associated non destructive examinations (NDE) were demonstrated to the inspectors on April 2-6, 2007. During this site visit the licensee demonstrated the use of the Phoenix 200 vacuum drying system (VDS) to perform vacuum drying, draining of the Transportable Storage Canister (TSC), and helium backfill operations.

3) Portions of the Catawba Nuclear Station 10 CFR Part 50 programs associated with dry fuel storage operations were evaluated on April 9-18, 2007. An inspection team from Region I, Region II, Region IV and the Spent Fuel Storage and Transportation (SFST) office were present to evaluate the programs and observe planned preoperational licensee demonstrations. Demonstrations included heavy load movements inside the spent fuel building from the railroad bay to the decontamination pit and to the upper shelf in the cask loading pit using the overhead spent fuel cask crane. The transfer of the canister from the transfer cask to the concrete storage cask was also demonstrated. The inspectors noted the Part 50 program changes which were not ready for inspection during this site visit as requiring additional evaluation prior to the initial loading. A violation was identified with inadequate indoctrination and training of site personnel that performed 10 CFR 72.48 reviews.

4) Additional preoperational demonstrations were conducted on June 4-7, 2007. Demonstrations included heavy load movements of the transfer cask to the deep end of the cask loading pit, inserting and removing a dummy fuel assembly from the Unit 2 spent fuel pool, hydrogen monitoring during welding operations, in-pool cooling, helium leak testing and re-flooding of the canister. Many of the open items from the earlier inspections were closed during this site visit. Due to the delay in beginning loading operations the licensee planned to move the equipment from Unit 2 and perform the initial dry fuel canister loading from Unit 1. This change in location required additional preoperational demonstrations to be performed before the initial loading campaign.

5) The final portion of the preoperational demonstrations was observed on July 18-23, 2007. Preoperational demonstrations included inserting and removing a dummy fuel

assembly from the Unit 1 spent fuel pool and heavy load movements specific to the Unit 1 spent fuel building. The Unit 1 spent fuel cask crane and supporting structure were also inspected during this site visit. All the open items identified during the earlier inspections were closed during this site visit. The licensee started the loading operations on the initial canister from Unit 1 on July 24, 2007 and placed the cask on the ISFSI pad on July 30, 2007.

The following provides a summary of the results of the inspection. Details are provided in the Inspector Notes contained in Attachment 2 to this report.

Spent Fuel Cask Crane

- The Whiting 125 ton spent fuel cask cranes were shown to meet the requirements of NUREG 0612 for the spent fuel canister lifts. In accordance with the requirements of NUREG 0612 an analysis had been conducted to determine that the consequences of a canister drop would not impact the safe operation of the Part 50 facility, would not cause a release of radioactive material to the environment and that the configuration of the spent fuel would remain sub-critical (Attachment 2, Control of Heavy Loads, Page 1).

- The cranes had recently been modified as part of a 10 CFR Part 21 notice which had been issued on March 30, 2006 by Whiting. The crane upgrades included installing stiffeners on portions of the crane bridge girder end sections. Following the modifications a functional load test was conducted of each crane using a test load of 77 tons. After the functional load test had been completed the licensee performed a visual inspection of the crane structure and critical components, including the main hoist bull and pinion gears. No indications of cracks, galling or other unusual indications were observed (Attachment 2, Load Test – 100%, Page 4).

Emergency Planning & Fire Protection

- The ISFSI emergency plan requirements had been incorporated into the existing Catawba Nuclear Station emergency plan. The highest level of alert classification for the ISFSI was the level of “Unusual Event,” (Attachment 2, ISFSI Emergency Plan, Page 9).

- The potential for fire or explosion was addressed in Calculation CNC-1435.00-00-0041. The specific separation distance requirements between the cask transporter haul path and the source of the flammable or combustible material were included in cask transport Procedure MP/0/A/7650/182 (Attachment 2, Fire Explosion Potential, Pages 10-11).

Fuel Verification

- Two fuel selection issues were identified by the staff during the inspection. The first issue involved the selection and qualification of a fuel assembly as intact based on a visual examination of the exterior portion of the fuel assembly. A four faced exterior visual inspection is estimated to view only 18 percent of the fuel assembly cladding area and would not by itself ensure that a defect no greater than a pinhole leak or hairline crack existed in an interior fuel pin. The licensee indicated that four faced visual inspections were used at McGuire to qualify fuel assemblies as intact and that the NRC

had reviewed this procedure during a previous inspection. The inspectors reviewed the "McGuire Nuclear Station - Independent Spent Fuel Storage Installation (ISFSI) Dry Run NRC Inspection Report 07200038/2004003," dated January 21, 2005 (ADAMS Accession Number ML050250227). After reviewing the McGuire ISFSI Inspection Report, the Catawba inspection team noted that, although no negative issues were identified in the previous McGuire inspection report with using visual inspections as a means to qualify fuel assemblies as intact, this was not an acceptable practice going forward. Based on this discussion, Catawba revised its fuel selection procedure XSFM-009 to provide additional guidance in determining that a fuel assembly met the definition for intact fuel. Regarding McGuire, the staff will pursue any additional regulatory actions that may be needed separate from this inspection report. The staff believes that the storage of potentially damaged fuel in the NAC-UMS storage system at McGuire does not present a safety issue for fuel storage under 10 CFR Part 72. However, the staff is still assessing whether the potentially damaged fuel assemblies which only received a visual examination prior to loading into the NAC-UMS system at McGuire are in compliance with the NAC-UMS CoC. In addition, the staff has not yet determined if there is a safety issue associated with transporting potentially damaged fuel assemblies that are not enclosed in a damaged fuel container and whether McGuire would be in compliance with the 10 CFR Part 71 transportation CoC (71-9270) if it were to use this CoC for offsite transportation.

The second issue involved a potential problem with the early vintage type 304 stainless steel upper guide sleeves which were prone to stress corrosion cracking. The staff agreed with the licensee that the suspect fuel assemblies may meet the definition of intact fuel for the purposes of storage under 10 CFR Part 72 if no evidence of cracking is observed and the assemblies can be placed into the canister. However, the staff has stated to the licensee that the fuel that is known to be susceptible to stress corrosion cracking has not been analyzed for transport under 10 CFR Part 71, and may not be able to be qualified for transportation unless it is placed in a damaged fuel container. Similar to the visual inspection issue discussed above, the staff is aware that McGuire had selected fuel assemblies for loading into the NAC-UMS canisters which were susceptible to stress corrosion cracking. The staff will pursue any additional regulatory actions that may be needed for McGuire separate from this inspection report.

The fuel selected for loading into the first two canisters at Catawba were reviewed to ensure that they met the NAC-UMS Technical Specification definition of Intact Fuel and that the fuel assemblies susceptible to stress corrosion cracking were not selected. The inspectors did not discover any discrepancies with fuel assemblies selected for the initial two canister loadings planned by the licensee (Attachment 2, Classifying Intact Fuel, Pages 11-13).

- Procedure XSFM-009 provided the instructions for selecting fuel assemblies for loading that would meet the requirements of the NAC-UMS Technical Specifications. Each requirement associated with the Technical Specification tables was discussed in detail in the procedure and a description was provided explaining how the requirement was achieved. Selected sources of data used to ensure compliance were reviewed. The inspectors reviewed selected fuel assemblies from Calculation CNEI 0400-143 and CNEI 0400-144 that had been identified for loading into the first and second canisters from Unit 1, respectively. The review compared fuel criteria documented in the

calculations to the Technical Specification requirements, including burnup, initial enrichment and decay heat. No discrepancies were discovered for the selected fuel assemblies reviewed (Attachment 2, Fuel Specifications, Pages 13-14).

General License Requirements

- The licensee performed the required written evaluation confirming that the conditions of the Certificate of Compliance were achieved prior to the first use of the dry cask system (Attachment 2, Initial Compliance Evaluation Against CoC, Page 18).

- The reactor site parameters, including analysis of earthquake intensity and tornado missiles were found to be enveloped by the site conditions existing at Catawba (Attachment 2, Initial Compliance Evaluation Against FSAR, Pages 18-19).

Heavy Loads

- Heavy lifts inside the spent fuel building and along the transport path to the ISFSI were controlled by station procedures. Supporting calculations had been developed to document limiting lift height requirements (Attachment 2, Heavy Loads Safety Evaluation, Page 23).

- A program was in place to perform the annual inspection of the transfer cask. The most recent inspection conducted on March 12, 2007 included appropriate nondestructive examinations (Attachment 2, Transfer Cask Annual Inspection, Page 26).

Hydrostatic Test / Vacuum Drying / Helium Test

- The target pressure range specified during the helium backfill operation included sufficient allowance for instrument errors (Attachment 2, Helium Backfill Pressure, Page 29).

- The final vacuum drying pressure measurements were made after the permanent vent and drain line connections were installed. The minimum pressure specified during the vacuum test was established to allow for instrument error (Attachment 2, Vacuum Drying Pressure, Page 33).

Non-Destructive Examinations (NDE)

- The liquid penetrant test Procedure NDEMAN-NDE-35 used on the canister welds incorporated acceptance standards that were consistent with ASME Section III, Article NB-5352 requirements (Attachment 2, Acceptance Criteria, Page 35).

- The leak standards supplied with the helium mass spectrometer leak detector during the initial preoperational demonstrations were outside the acceptable sensitivity range. During the initial canister loading, a helium leak standard in the correct range with a minimum sensitivity of 6.37 X 10(-8) ref-cc/sec was used to verify that the canister leakage was below 2.0 X 10(-7) ref-cc/sec (Attachment 2, HMSLD Minimum Sensitivity, Page 38).

Preoperational Testing

- The dry run training exercises on loading, closure, handling, unloading and transfer of a NAC-UMS Storage System as required by Technical Specification A.5.2 were achieved by Catawba personnel between April 2, 2007 and July 23, 2007 (Attachment 2, Pre-Operational Testing and Training Exercise, Pages 38-39).

Procedures & Technical Specifications

- Vertical lift height limits for the concrete cask were established in procedures that were based on the NAC-UMS lift height requirements and the more restrictive Catawba analyzed lift height limits specified above the buried Part 50 components (Attachment 2, Drop Limit, Pages 42-43).

- The time to boil limit was based upon the time the canister first broke the spent fuel pool water surface. Contingencies were in place if the time limit was close to expiring or the water in the canister exceeded the time to boil maximum water temperature that was specified in the loading procedure (Attachment 2, Time to Boil Limit, Page 45).

Quality Assurance

- The requirement to provide indoctrination and training of personnel performing 10 CFR 72.48 safety review activities was not implemented during the pre-operational inspection as required by 10 CFR 72.144(d) and a Non-Cited Violation (NCV) has been issued (Attachment 2, 10 CFR 72.48 Training, Pages 46-48).

- Adequate controls had been established for the dry fuel materials, parts, components, assemblies and subassemblies (Attachment 2, Control of Material and Parts, Pages 48-49).

- Comprehensive audits and surveillances were conducted of the dry cask vendor and sub-vendors. The first internal audit of the Catawba dry fuel storage program is scheduled for late in 2007 (Attachment 2, QA Audits, Pages 52-53).

Radiological

- The station had implemented controls to keep the occupational dose exposure as low as reasonably achievable (ALARA). During the initial canister loading process the total personnel exposure was reported to be 244 mrem (Attachment 2, ALARA, Pages 53-54).

- The station had implemented processes to keep the removable contamination on the exterior surfaces of the canister well below the NAC-UMS Technical Specification limits. During the initial canister loading, the maximum removable contamination level measured on the exterior of the canister was recorded as 244 dpm/100 cm^2 (Attachment 2, Contamination Limits for Canister, Pages 54-55).

Slings

- Catawba had established lift plans that governed the lifts associated with dry fuel storage implementation. Included in the lift plans were reviews of the component weight, lifting hardware, sling angles and attachment points as required by ASME B30.9 (Attachment 2, Rigging Practices, Pages 61-62).

- The cask lift rig sets including the slings, were required to be inspected on an annual basis. Defective slings were required to be removed from service (Attachment 2, Sling Inspections – Annual, Page 62).

Special Lifting Devices

- The long lift adapter and long lift adapter extension had been load tested and examined per the requirements of ANSI N14.6 (Attachment 2, Load Bearing Pins, Page 66).

- An annual inspection of the lift yoke had been performed within the past 14 months as required by ANSI N14.6. The results of the yoke inspection were found to be satisfactory (Attachment 2, Yoke Annual Testing, Pages 67-68).

Training

- Physical examinations had been provided to the personnel certified for the operation of equipment and controls that are important to safety as required by 10 CFR 72.194 (Attachment 2, Health Requirement for Certified Personnel, Page 70).

- Training requirements had been established and implemented for operators, maintenance and radiation protection personnel. The Learning Management System database had been updated to indicate the training for the personnel performing dry fuel storage activities (Attachment 2, NRC Approved Training Program, Pages 71-72).

Welding

- Adequate hydrogen monitoring techniques had been implemented using manual processes and through the use of the vacuum drying system during the welding operations (Attachment 2, Hydrogen Gas Monitoring, Pages 77-78).

- The process for performing the liquid penetrant examination of the structural lid weld was adequately implemented (Attachment 2, Weld Exam – Progressive PT on Structural Lid, Pages 78-79).

The NRC made several observations during the licensee preoperational demonstrations. These observations were captured by the licensee in the corrective action program document termed a Problem Identification Report (PIP). A listing and short description of these PIP's are included in Attachment 1.

SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Licensee Personnel:

R. Amos, Maintenance Supervisor
T. Beadle, Emergency Planning
E. Brewer, Operations Training
J. Brown, Nuclear Maintenance Specialist
J. Bumgarner, Quality Assurance – Inspection and Welding Services
G. Cornwell, Project Manager
M. Cornwell, Reactor Engineering
T. Cox, Fuel Handling Supervisor
R. Dove, RP Training Supervisor
R. Dye, Maintenance
J. Elgin, RP Staff Scientist
S. Friend, Reactor Engineering
S. Grier, Nuclear Procurement Quality Manager
G. Hamrick, Engineering Manager
T. Hardin, Maintenance
M. Hogan, Fire Protection Engineer
P. Honeycutt, Nuclear Supply Chain (NSC) - Procurement
J. Jenkins, Nuclear GO Spent Fuel Management
A. Jones-Young, Regulatory Compliance
L. Keller, Reactor Engineering Supervisor
S. Lee, Document Management
W. Madsen, Fuel Handling Supervisor
M. Medlin, Modification Engineer
G. Mitchell, Emergency Planning
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J. Standridge, Nuclear GO Performance Assessments
G. Strickland, Work Control
B. Wise, NSC – Shipping and Receiving
B. Woolweber, Rapid Response Team Engineering

INSPECTION PROCEDURES USED

60854.1	Preoperational Testing of Independent Spent Fuel Storage Facility Installations at Operating Plants
60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants
60856.1	Review of 10 CFR 72.212(b) Evaluations at Operating Plants
60857	Review of 10 CFR 72.48 Evaluations

LIST OF ITEMS OPENED AND CLOSED

Opened & Closed

NCV 72-45/0701-01	Failure to perform indoctrination and training of personnel performing 10 CFR 72.48 reviews.

Discussed

None.

LIST OF ACRONYMS USED

ACI	American Concrete Institute
ALARA	As Low As Reasonably Achievable
ANSI	American National Standards Institute
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials\
AWS	American Welding Society
CoC	Certificate of Compliance
CFR	Code of Federal Regulations
CMAA	Crane Manufacturers Association of America
CNS	Catawba Nuclear Station
DPM	Disintegrations Per Minute
FME	Foreign Material Exclusion
FSAR	Final Safety Analysis Report
GL	Generic Letter
GTAW	Gas Tungsten Arc Weld
HMSLD	Helium Mass Spectrometer Leak Detector
ISFSI	Independent Spent Fuel Storage Installation
ISG	Interim Staff Guidance
Keff	Effective Neutron Multiplication Factor
kW	Kilo-Watt
MT	Magnetic Particle Testing
NDE	Non Destructive Examination
NRC	Nuclear Regulatory Commission
NSD	Nuclear Station Directive
NUPIC	Nuclear Procurement Issues Committee
OJT	On-the-Job Training
PIP	Problem Investigation Process
PQR	Procedure Qualification Record
PSI	Pounds per Square Inch
PSIA	Pounds per Square Inch – Absolute pressure

PSIG	Pounds per Square Inch – Gauge pressure
PT	Dye Penetrant Testing
PWHT	Post Weld Heat Treatment
QA	Quality Assurance
QAP	Quality Assurance Program
RT	Radiographic Testing
SAT	System Approach to Training
SER	Safety Evaluation Report
SNM	Special Nuclear Material
Tech Spec	Technical Specification
TFR	Transfer Cask
TLD	Thermo-Luminescent Dosimeter
TSC	Transportable Storage Container or canister
UFSAR	Updated Final Safety Analysis Report
UMS	Universal Multipurpose System
VCC	Ventilated Concrete Cask or cask
VDS	Vacuum Drying System
WLL	Working Load Limit
WO	Work Order
WPS	Welding Procedure Specification

LIST OF PIP CORRECTIVE ACTION DOCUMENTS

PIP C-07-3832

During the initial ISFSI cask loading process, the lead NRC inspector questioned what process was being used to control the NAC-UMS Technical Specification pressure measurements recorded from gauges located on the vacuum drying skid. The non-calibrated gauges on the vacuum drying skid were used to perform the Technical Specification related measurements and checked against a calibrated instrument before and after the measurements were obtained. No station directives or procedures could be located that provided instructions for using the process described above for control of measuring and test equipment for use on Important-to-Safety applications as provided in Section XII of Appendix B to 10 CFR Part 50. This finding will be monitored by the NRC Resident Inspectors.

PIP C-07-3796

The procedures and processes used to track the NAC-UMS Technical Specification time clocks at Catawba did not provide for automated tracking of the time clock expiration time and date. To accomplish the task of tracking the time clocks during the initial canister loading, Operations had to track the information manually, which created an error trap.

PIP C-07-3683

A PIP was issued to track providing ISFSI awareness training to offsite emergency management and fire fighting agencies responsible for emergency response to CNS, especially fire fighters.

PIP C-07-02892

Portions of approved dry fuel procedures do not correlate with specific requirements located in the NAC-UMS FSAR Section 8.3. The deviations from the FSAR requirements were not identified or evaluated in the approved 10 CFR 72.48 screening performed by station personnel.

PIP C-07-2028

"The Catawba UFSAR Section 9.1 has a requirement for performing additional NDE (MT or PT) on structural welds on the fuel building overhead cranes beyond the requirements of other non-safety related welds. During the Part 21 upgrades required by Whiting, this requirement was missed and welding was performed on additional steel components added as part of the modifications with only visual inspection performed."

PIP C-07-01967
"The ISFSI FSAR needs to be systematically reviewed to ensure any deviations have been evaluated per 10CFR72.48."

PIP C-07-01922
"This PIP is being initiated to track open items from the ISFSI Dry Run Inspection." There were 27 items identified in the PIP.

PIP C-07-01922, CA Sequence No. 36
"Revise NSD 211 to specify specific training requirements to be considered qualified to perform a 72.48 screen or evaluation."

PIP C-07-01922, CA Sequence No. 37
"Develop an ISFSI related training matrix to determine which individuals in the Maintenance, Operations and Radiation Protection organizations are fully qualified and which individuals still require additional training."

PIP C-07-01922, CA Sequence No. 38
"Revise Procedure RP/0/B/5000/029 to include the requirement to perform a visual inspection of the loaded dry fuel storage cask (VCC) within 4 hours following a fire when located in the fuel buildings or along the transport path, as required by NAC-UMS TS A.5.4."

PIP C-07-01922, CA Sequence No. 39
"The NSD 703 technical procedure exemption process for Catawba RP needs to be reviewed in light of NRC concerns raised. Specifically, the Appendix G questionnaire could allow a procedure that is used to verify TS acceptance criteria to be met, to be considered exempt form 50.59 and 72.48 reviews."

PIP C-07-01922, CA Sequence No. 40
"NSD 228 needs to be reviewed for adequacy in terms of determining whether a change requires evaluation under the requirements of 10 CFR 72.48."

PIP C-07-01860
"This PIP documents RP lessons learned and area for improvement identified during the CNS ISFSI Dry Run activities performed 4-3-07 through 4-16-07."

PIP C-07-01805
"Engineering should analyze the lifting sets identified in procedure MP/0/7650/181, Enclosure 13.4; for adequacy for lifts associated with spent fuel cask loading."

PIP C-07-01774
"ISFSI/Calibrated Leaks, used for Helium Leak Detection, were ordered to the wrong leak value for calibrating the helium leak detector."

PIP C-07-01687

“An issue has been raised by the NRC inspector perform an observation of the ISFSI welding activities dry run. The NRC inspector’s position is that the root of the weld consists of a single pass.”

PIP C-07-01020, CA Sequence No. 12
“Evaluate RP/0/B/5000/029 Fire Brigade Response procedure for adding a step to implement Operations PT/0/A/4600/031 NAC UMS CASK Surveillance if a fire occurs that affects the ISFSI area.”

PIP C-07-01015
“This PIP is to track the NRC Exit Meeting minutes from the ISFSI Overhead Crane Inspection.”

PIP C-07-00971
“ISFSI Transfer Cask drop analysis provided by vendor does not conclusively state that the forces exerted on the fuel assemblies during the postulated drop will not result in the reconfiguration of the fuel resulting in a Keff greater than 0.95.”