



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION II
245 PEACHTREE CENTER AVENUE NE, SUITE 1200
ATLANTA, GEORGIA 30303-1257

September 12, 2014

Mrs. Cheryl A. Gayheart
Vice President - Farley
Southern Nuclear Operating Company, Inc.
Joseph M. Farley Nuclear Plant
7388 North State Highway 95
Columbia, AL 36319

**SUBJECT: FARLEY NUCLEAR POWER PLANT - NOTIFICATION OF INSPECTION AND
REQUEST FOR INFORMATION**

Dear Mrs. Gayheart:

On October 20 – 24, 2014, and November 3 – 7, 2014, the U.S. Nuclear Regulatory Commission (NRC) will perform a baseline Radiation Safety Inspection at Farley Nuclear Plant, Units 1 and 2, (NRC Inspection Procedures 71124.01, 71124.02, 71124.03, 71124.04, 71124.05, and the Radiation Safety Sections of 71151). Experience has shown that this inspection is resource-intensive for both the NRC inspectors and your staff. In order to minimize the impact to your onsite resources and to ensure a productive inspection, we have enclosed a request for documents needed for this activity. The NRC requests that these documents be provided to the inspectors no later than October 13, 2014.

We have discussed the schedule for these inspection activities with your staff, and understand that our regulatory contact for this inspection will be William Oldfield of your organization. If there are any questions about this inspection or the material requested, please contact the lead inspector Carmen Dykes at 404-997-4401, or the Plant Support Branch 1 Chief, Brian Bonser at 404-997-4653.

In accordance with Title 10 of the Code of Federal Regulations (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 Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Brian Bonser, Chief
Plant Support Branch 1
Division of Reactor Safety

Docket Nos. 50-348 and 50-364
License Nos. NPF-2 and NPF-9

Enclosure:
Document Request List

cc: Distribution via Listserv

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ADAMS: ☒ Yes ACCESSION NUMBER: ML14255A198 ☒ SUNSI REVIEW COMPLETE ☒ FORM 665 ATTACHED

OFFICE	RII:DRS/PSB1	RII:DRS/PSB1	RII:DRS/PSB1				
SIGNATURE	WSP1 for CMD4	WSP1 via e-mail	BRB1				
NAME	C. Dykes	W. Pursley	B. Bonser				
DATE	9/ 11 /2014	9/ 11 /2014	9/ 12 /2014				
E-MAIL COPY	YES NO	YES NO	YES NO				

OFFICIAL RECORD COPY

Document Request List

SITE: Farley Nuclear Plant Report Number 05000348, 364/2014004

INSPECTION DATES: October 20 – 24, 2014
 November 3 – 7, 2014

NRC INSPECTORS: Carmen Dykes, Carmen.Dykes@nrc.gov 404-997-4401
 William Pursley, William.Pursley@nrc.gov
 Ruben Hamilton, Ruben.Hamilton@nrc.gov
 Robert Kellner, Robert.Kellner@nrc.gov

Inspection Procedures:

IP 71124.01	Radiological Hazard Assessment and Exposure Controls
IP 71124.02	Occupational As Low As Reasonably Achievable Planning and Controls
IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation
IP 71124.04	Occupational Dose Assessment
IP 71124.05	Radiation Monitoring Instrumentation
IP 71151	Performance Indicator Verification

Note: The current version of these documents is expected unless specified otherwise. Electronic media is preferred if readily available (The preferred file format is Word, WordPerfect, or searchable “.pdf” files on CDROM). *[Note that the inspectors cannot accept data provided on USB or “flash” drives due to NRC IT security policies.]* Please organize the information as it is arranged below to the extent possible. Experience has shown that a poorly organized CD leads to a less efficient inspection, and places additional burden on licensee staff. Please provide three copies of the CD submitted. If there are questions regarding the documents requested, please do not hesitate to contact the lead inspector.

Assistance Requested During Onsite Inspection

1. Identification of work activities during the inspection for inspector observations, including notification of pre-job briefings.
2. Health physics (HP) assistance in plant walkdowns assessing radiological hazards and exposure controls (e.g., verifying the posting and locking of entrances to locked high radiation areas (LHRA) and very high radiation areas (VHRA), spent fuel pool (SFP) controls, and radioactive material (RAM) storage areas).

General Information Request

1. List of primary contacts for each inspection area w/phone numbers.
2. Electronic copy of relevant Updated Final Safety Analysis Report (UFSAR) Chapters (e.g., site description, radwaste program, and radiation protection).
3. List of Site and Corporate radiation protection procedures.
4. Corrective Action Program (CAP) procedures including procedure for issuing condition reports (CRs) and assessing issues for significance and action.

Enclosure

5. Procedures for gathering and reporting NRC Performance Indicator (PI) data.
6. Outage schedule of major activities (Gantt chart if available).
7. Most recent 10 CFR 61 results for the dry active waste (DAW) stream.

71124.01 Radiological Hazard Assessment and Exposure Controls

1. List of active Radiation Work Permits (RWPs).
2. Have available and accessible surveys and maps of all LHRAs, and areas with the potential to become a LHRA during routine operations or outages. List of the 10 most exposure significant outage area/activity in radiation areas, (i.e., high radiation areas (<1R/hr), or airborne radioactivity areas in the plant). This may include areas with low dose rates but high collective dose. Identify any potential high radiation areas (HRAs) with significant dose gradients (factor of five or more), including underwater diving activities.
3. Latest surveys of independent spent fuel storage installation (ISFSI) areas.
4. Procedures related to HP controls (e.g., Posting, labeling, surveys, RWPs, contamination control, HRA/LHRA/VHRA control, key control, control of divers, special controls during fuel offload, hot spots, alpha monitoring, etc.).
5. Procedures related to release of personnel and materials (e.g., release surveys, decontamination, guidance for alarm followup, etc.).
6. List of Nationally Tracked Sources and any change-of-ownership transactions.
7. List of all non-fuel items stored in SFP.
8. Inventory list of all sealed sources stored onsite.
9. All self-assessments and audits covering HP controls since March 2013.
10. List of CRs related to HP controls written since March 2013. *[This should be a list of corrective action documents containing a CR number and brief description, not full CRs.]*

71124.02 Occupational As Low As Reasonably Achievable Planning and Controls

1. Site and corporate procedures associated with maintaining site dose as low as reasonably achievable (ALARA); including those involving ALARA work activities. These procedures should include:
 - a. ALARA program implementation, including ALARA committee activities, ALARA planning, briefing, and reviews
 - b. RWP preparation and worker compliance
 - c. Processes used to estimate and track work activity specific exposures
 - d. Making changes to dose estimates during task performance
 - e. Work controls
 - f. Engineering controls
 - g. Exposure mitigation requirements
2. Documentation of plant collective exposure history, current exposure trends, and ongoing or planned outage activities that present exposure challenges. Current status of significant tracked plant source changes, plant fuel performance issues, or changes in plant primary chemistry.
3. Source term reduction strategic plan, if available.
4. List of top five dose jobs for the upcoming refueling outage and ALARA planning packages (including dose estimates, work hour estimates, special HP controls and dose reduction initiatives), if available.

5. List of top five dose jobs for the last refueling outage. Provide completed ALARA packages (including post-job reviews) for the top three work activities that were completed during the last outage, which had the greatest collective dose and/or presented significant radiological risk.
6. Minutes or activity summaries from the last four ALARA Committee Meetings.
7. Audits and self-assessments performed of the ALARA program since April 2012.
8. List of CAP CRs generated since April 2012, related to ALARA planning and controls.

71124.03 In-Plant Airborne Radioactivity Control and Mitigation

1. Site and corporate procedures associated with airborne radioactivity control and mitigation and respiratory protection. Procedures should include but not limited to guidance for the following:
 - a. Maintenance, inspection, and use of respiratory protection equipment including self-contained breathing apparatus (SCBA)
 - b. Total Effective Dose Equivalent (TEDE)-ALARA guidance
 - c. Alpha air sampling
 - d. Use of installed plant systems including containment purge, SFP ventilation, and auxiliary building ventilation
 - e. Use of temporary ventilation systems (e.g., HEPA/charcoal NPUs, tents, etc.)
2. A list of recent activities in which respiratory protection equipment was used (planned outage activities should also be included in the list).
3. Two most recent HEPA filter Dioctylphthalate (DOP) and charcoal test results for the following ventilation systems:
 - a. Main Control Room
 - b. Unit 1 Auxiliary Ventilation Exhaust
4. Air testing data (i.e., Grade D certification) for supplied air devices and SCBA bottles since April 2012.
5. SCBA qualification records:
 - a. Vendor training certificates for all individuals qualified to repair SCBA
 - b. List of all licensed operators qualified to use SCBA
 - c. List of all maintenance personnel qualified to use SCBA
 - d. List of all HP personnel qualified to use SCBA
6. A list of CRs generated since April 2012 related to (1) the control and mitigation of in-plant airborne radioactivity, and (2) respiratory protection.
7. Available for onsite review by inspector during inspection:
 - a. Inventory, inspection, and maintenance records for SCBA equipment
 - b. Training records, including fit-testing, for SCBA-qualified individuals
 - c. Training records/certification for individuals qualified to perform maintenance on vital components (e.g., regulators) on SCBA

71124.04 Occupational Dose Assessment

1. Procedures/Guidance Documents for:
 - a. External dose monitoring
 - dosimetry issuance and use
 - multi-badging, monitoring in steep/highly variable dose rate gradients
 - personnel contamination events
 - storage/care of personal dosimeters

- use of electronic dosimeters including evaluation of any biases identified relative to thermoluminescent dosimeter (TLD) monitoring
- b. Internal dose assessment (i.e., both in vivo and in vitro bioassay and air sampling capabilities). The documents should include guidance for
 - calibration/QC and use of whole body counter (WBC)
 - release of contaminated individuals, use of passive monitoring as screening method for evaluations
 - special in vitro sample collection and analysis
 - actions for declared pregnant workers
- 2. National Voluntary Laboratory Accreditation Program (NVLAP) accreditation documentation for current dosimetry used by site.
- 3. A list of all positive WBC, in vitro, or air sampling analyses which resulted in an assigned Committed Effective Dose Equivalent (CEDE) equal to or exceeding 10 millirem since April 2012. *[Note: Only a listing should be provided for use by the inspectors to select a sample of issues for in-depth review during the onsite inspection.]*
- 4. A list of all personnel contamination events, dispersed contamination/discrete particles identified since April 2012. *[Note: Only a listing should be provided for use by the inspectors to select a sample of issues for in- depth review during the onsite inspection.]*
- 5. A list of declared pregnant workers. *[Note: Do not provide this data – the documents will be reviewed onsite, only have the data readily available during the onsite inspection.]*
- 6. Most recent audits, self-assessments, and/or reviews related to internal or external dosimetry issues, and the most recent audit of the lab that processes site dosimetry. The documents provided should to include any reviews/evaluations conducted of vendor facilities (e.g., corporate or outside vendor/or corporate calibration facilities).
- 7. A list of CR documents generated since April 2012, for internal or external dosimetry issues/events. *[Note: Only titles/summary statement should be provide for use by the inspectors to select a sample of issues for in-depth review.]*

71124.05 Radiation Monitoring and Instrumentation

1. Procedures/Guidance Documents for:
 - a. Use of portable instrument calibrators
 - b. Calibration and functional test/source checks of portable radiation detection instrumentation
 - c. Calibration and functional tests of small article monitor (SAM), personnel contamination monitor (PCM), portal monitor (PM), and whole body counting (WBC) equipment; for area radiation monitor (ARM) and continuous air monitor (CAM) equipment
 - d. Determination of set-points for ARM, CAM, PCM, PM and SAM equipment used for area and personnel monitoring equipment, as applicable
 - e. Collection and analysis of high-range, post accident iodine and effluent samples
 - f. QA program for count room instruments
2. A list of in-service SAM, PCM, PM, and WBC equipment *[Note: the list will be used to select 3 to 5 monitors for evaluation of their calibration/functional check surveillances during the onsite inspection. In addition, portable radiation detection instrumentation will be selected at random to evaluate adequacy of calibrations.]*
3. A list of Out of Service (OOS) [>24hrs] Effluent Monitors and Length of Inoperability since April 2012.
4. Radiation monitoring system Health System Reports from January 2012.

5. The previous two sets of calibration data for the following monitors:
 - a. Unit 2 Plant vent stack effluent monitors, high range
 - b. Unit 1 Plant vent stack
 - c. Unit 2 Containment high range
 - d. Waste Processing System Liquid Effluent Monitor
6. Documentation for the radioactive sources used to calibrate the above requested monitors showing traceability to a National Institute of Standards and Technology (NIST) and traceability to the primary calibration, as applicable.
7. Copies of all audits, self-assessments, and/or reviews of area and personnel monitoring equipment and portable radiation survey instruments generated since April 2012. The records should include any reviews conducted of vendor facilities (e.g., outside calibration laboratories).
8. Chart or procedure listing any emergency action level (EAL) value associated with installed or portable radiation monitoring instrument indication(s).
9. List of CRs generated since April 2012, related to portable instruments, effluent and area monitors, CAMs, Radiological Controlled Area (RCA) release point monitors, WBCs, and count room instruments. *[This should be a list of corrective action documents containing a CR number and brief description, not full CRs.]*

71151 Performance Indicator Verification (occupational and public cornerstones)

1. Procedure/Guidance for gathering and reporting PI data.
2. A list of all CRs related to effluent dose/Offsite Dose Calculation Manual (ODCM) issues since January 2013. *[This should be a list of corrective action documents containing an identification number and brief description.]*
3. A list of all CRs related to TS HRA/VHRA issues since January 2013.
4. Most recent gaseous and liquid effluent release permits.
5. Electronic dosimeter alarm logs since January 2013.
6. Monthly/Quarterly Occupation and Public Radiation Safety PI reports since September 2013.

LIST OF ACRONYMS

ALARA	As Low As Reasonably Achievable
ARM	Area Radiation Monitor
CAM	Continuous Air Monitor
CAP	Corrective Action Program
CEDE	Committed Effective Dose Equivalent
CRs	Condition Reports
DAW	Dry Active Waste
DOP	Diocetylthalate
EAL	Emergency Action Level
HP	Health Physics
HRAs	High Radiation Areas
ISFSI	Independent Spent Fuel Storage Installation
LHRA	Locked High Radiation Area
NIST	National Institute of Standards and Technology
NVLAP	National Voluntary Laboratory Accreditation Program
ODCM	Offsite Dose Calculation Manual

OOS	Out of Service
PCM	Personnel Contamination Monitor
PIs	Performance Indicator
PM	Portal Monitor
RAM	Radioactive Material
RCA	Radiological Controlled Area
RWPs	Radiation Work Permits
SAM	Small Article Monitor
SCBA	Self-contained Breathing Apparatus
SFP	Spent Fuel Pool
TEDE	Total Effective Dose Equivalent
TLD	Thermoluminescent Dosimeter
UFSAR	Updated Final Safety Analysis Report
VHRA	Very High Radiation Area
WBC	Whole Body Counter