May 25, 1999

Mr. M. Wadley
President, Nuclear Generation
Northern States Power Company
414 Nicollet Mall
Minneapolis, MN 55401

SUBJECT: NRC RADIATION PROTECTION INSPECTION REPORT 50-282/99005(DRS); 50-306/99005(DRS)

Dear Mr. Wadley:

On April 30, 1999, the NRC completed an inspection at your Prairie Island Nuclear Generating Plant. The enclosed report presents the results of that inspection. The inspection examined activities conducted under your license related to radiation safety and to compliance with the Commission's rules and regulations and with the conditions of your license.

Areas examined during the inspection included shutdown chemistry, portions of the internal dose monitoring and assessment program, and work planning to ensure that jobs were evaluated to maintain radiation doses As-Low-As-Is-Reasonably-Achievable (ALARA). Walkdowns within the containment, auxiliary and radwaste buildings were made to evaluate radiation worker practices and control of ongoing radiological work. Within these areas, the inspection consisted of a selective examination of procedures and representative records, observations, and interviews with personnel. No violations of NRC requirements or open items were identified.

Overall, plant radiological controls were effective in maintaining a reasonable collective dose for the work being conducted during the Unit 1 refueling outage. An effective shutdown chemistry program contributed to reduced dose projections for the outage. The radiation protection staff and radiation worker performance was effective in ensuring that outage dose was maintained ALARA, and minor worker performance discrepancies identified during the inspection were addressed promptly by your staff.

In accordance with 10 CFR 2.790 of the NRC's "Rules and Practice," a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

We will gladly discuss any questions you have concerning this inspection.

Sincerely,

Original /s/ G. L. Shear

Gary L. Shear, Chief
Plant Support Branch

Docket Nos. 50-282; 50-306
License Nos. DPR-42; DPR-60

Enclosure: Inspection Report 50-282/99005(DRS); 50-306/99005(DRS)

cc w/encl: Site General Manager, Prairie Island
Plant Manager, Prairie Island
S. Minn, Commissioner, Minnesota
Department of Public Service
State Liaison Officer, State of Wisconsin
Tribal Council, Prairie Island Dakota Community

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos:	50-282; 50-306
License Nos:	DPR-42; DPR-60
Report No:	50-282/99005(DRS); 50-306/99005(DRS)
Licensee:	Northern States Power Company
Facility:	Prairie Island Nuclear Generating Plant
Location:	1717 Wakonade Dr. East Welch, MN 55089
Dates:	April 26-30, 1999
Inspectors:	M. Mitchell, Radiation Specialist W. Slawinski, Senior Radiation Specialist
Approved by:	G. L. Shear, Chief, Plant Support Branch Division of Reactor Safety

EXECUTIVE SUMMARY

Prairie Island Nuclear Generating Plant
NRC Inspection Report 50-282/99005(DRS); 50-306/99005(DRS)

This inspection included a review of the licensee's radiation protection (RP) performance during the Unit 1 refueling outage, shutdown chemistry and crud burst, As-Low-As-Is-Reasonably-Achievable (ALARA) planning and implementation, the internal monitoring and assessment program and radiation worker performance. Overall, activities within the areas examined were well conducted and radiation protection support for the Unit 1 outage was effective.

- The licensee's ALARA reviews and Radiation Work Permit (RWP) processes identified and effectively addressed radiological conditions and controls for outage tasks. ALARA initiatives for this outage were appropriate and were effectively implemented by station staff. (Section R1.1)

- Overall, the RP staff exercised effective control of work practices and radiological conditions within the plant. Monitoring and control of contamination was successful, as evidenced by the low number of personnel contaminations and the low levels of contamination detected. (Section R1.2)

- Overall, the RP staff exercised effective control of work practices and radiological conditions in the containment related to Control Rod Drive (CRD) Partial Length removal and disposal activities. Monitoring and control of radiation worker dose was successful, as evidenced by the low collective dose as compared to dose estimates for specific jobs. The pre-job briefings for these tasks were thorough. (Section R1.3)

- The inspectors determined that the licensee effectively implemented the shutdown chemistry program, which resulted in a substantial reduction of the radiological source term. (Section R1.4)

- The licensee effectively monitored the potential intake of radioactive material through the use of a passive monitoring system that was calibrated and tested in accordance with station procedure and industry guidance. Potential intakes of radioactive material were readily identified, and the plant health physicist assessed dose from internally deposited radioactive material appropriately. (Section R1.5)

- The licensee took appropriate and immediate corrective action regarding the misinterpretation of a contamination incident identified at access control. Long term corrective action, in the form of procedural revision, was tracked in the licensee's corrective action program. Radiological protection planning was adequate to protect public health and safety during a planned public plant tour. (Section R4.1)

- Outage staffing and training for the RP program was effective. The training of contract RP staff was completed in accordance with station procedures and prepared workers for assigned outage tasks. (Section R5.1)

Report Details

IV. Plant Support

R1 Status of Radiation Protection and Chemistry Controls

R1.1 ALARA Reviews and Implementation for the Unit 1 Refueling Outage

a. Inspection Scope (83729)

The inspectors reviewed several ALARA reviews, interviewed radiation protection (RP) supervision regarding ALARA planning for the Unit 1 outage, and observed the implementation of ALARA measures and work activities throughout the containment building. Specifically, the inspectors observed steam generator (SG) eddy current testing (ECT), control rod drive partial length removal and disassembly, in-core thimble removal, remote canopy seal welding and limited reactor coolant pump (RCP) work.

b. Observations and Findings

The inspectors noted that ALARA reviews for specific tasks were conducted by the RP Superintendent prior to the development of the work packages and radiation work permits (RWPs). The ALARA reviews consisted of the following: (1) a review of historical files for radiological data and lessons learned, (2) pre-job briefing material for radiological conditions, protective clothing requirements, and RP coverage, (3) ALARA measures and engineering controls to minimize dose, (4) dosimetry requirements and hold points, and (5) low dose waiting areas. The inspectors noted that the ALARA reviews were thorough and were conducted in accordance with station procedure.

ALARA initiatives included the placement of lead shielding in the number 12 steam generator (SG) vault and the use of a vault valves list. This valve list was available at the containment entry and was used as a reference to help personnel locate the various valves to decrease the time spent locating the valves.

In addition, the RP staff decontaminated the SG manways to decrease both dose rates and contamination levels. During the process of opening the manways, the RP staff identified a 22 Roentgen/hour hot spot on the manway cover. The staff stopped the evolution, performed additional planning, and prepared a new pre-job brief for removing the manway hatch, flange and seal. When removing the manway, the RP staff identified a discreet particle on the flange. This was immediately moved to a shielded waste container, in accordance with the plan and pre-job briefing. The total dose for opening the manway, identifying the source term and disposing of the waste was held below the 200 millirem (mrem) projection. This evolution demonstrated the ALARA initiative by RP to limit dose through proper work control during changing conditions.

The dose levels on the SG platform and in the manway were dramatically improved over the Unit 2 refueling outage, which was the previous low. These low dose rates greatly changed the projected total dose for this outage project. During the Unit 1 outage, almost every planned outage evolution involving the primary system benefitted from the lower doses.

The radiation protection and chemistry (RP&C) staff provided effective support for outage work activities. In particular, the inspectors noted that a radiation protection specialist (RPS) assigned to the in-core thimble replacement group questioned whether

the initial evolution should be stopped and reassessed, based on progress of the job. This questioning led to a consensus, and the staff developed a new plan and conducted a pre-job brief, prior to restarting the job.

The eddy current testing crew worked with an appropriate ALARA focus, and the radiation protection specialist (RPS) effectively used both headsets and remote dosimetry to monitor their work. Radiation Protection coverage was effective in providing dose rate assessment, maintaining control of contamination areas, and servicing the ECT contract staff to reduce the amount of time in high dose rate areas.

The containment RP staff routinely surveyed the number 12 reactor coolant pump (RCP) during the seal replacement work. After seal number 1 was replaced, the staff conducted contamination surveys and mitigation to release the area from the restrictions of being a high contamination area. During specific steps of the RCP seal replacement procedure, the inspectors noted that more employees were present than appeared to be necessary. No radiation worker practice concerns were identified during these tasks.

As part of ALARA planning for the Unit 1 outage, RP management requested the contractor for the remote canopy seal welding project to limit dose by using remote welding techniques. The contractor submitted proposed procedures with consideration of that request. This greatly reduced the total dose for this evolution and saved the Unit 1 refueling outage a projected dose of at least 40 rem.

For the task specific RWPs which were completed at the time of this inspection, the licensee expended less dose than expected, allowing a total outage projected dose reduction of more than 20%. There was no radiation dose attributable to rework at the time of the inspection. Although the RP staff effectively controlled the radiation dose for most outage activities, the SG tube removal work was an emergent evolution that is expected to add 1.1 rem to the estimated dose. Safety Injection valve work was also an expected emergent evolution; however, this will not be completed until plant heat-up and the final dose estimates had not been calculated at the time of the inspection. The revised final dose estimate for the outage was 75.66 rem, down from the original 95 rem estimate.

c. Conclusions

The licensee's ALARA reviews and RWP process had identified and effectively addressed radiological conditions and controls for various outage tasks. The inspectors also noted that ALARA initiatives for this outage were appropriate and that the various ALARA measures were effectively implemented by station staff.

R1.2 Observation of Contamination and Airborne Radioactivity Controls, Radiological Postings, and Housekeeping

a. Inspection Scope (83750)

The inspectors conducted walkdowns and observed various outage activities in the containment, auxiliary, and radwaste buildings. In addition, the inspectors interviewed RP staff regarding control of radiological conditions and reviewed radiological survey, personnel contamination, and whole body count data.

b. Observations and Findings

Independent measurements around the reactor vessel head and the cavity cleanup system demonstrated that the radiological postings and survey maps appropriately reflected current plant conditions. The inspectors noted that the RPS staff conducted routine surveys to ensure the information was current. Although the inspectors noted isolated housekeeping issues, in general, housekeeping was very good, and no radiological impediments to work activities were observed. It was observed that personnel dosimetry was worn as required, that survey meters and air samplers were within calibration, and that effective use had been made of lead blankets in reducing several high source term areas. Also, access to high radiation areas was appropriately controlled.

Contamination controls were effective, for the most part, as potentially contaminated items were either within the designated areas or were bagged and labeled appropriately. However, the inspectors noted that two plastic bags in the filter dryer room were not completely inside a contaminated area boundary. Plant staff promptly secured the bags within the contaminated area. Review of outage personnel contamination data indicated that contaminations were minimal and involved very low levels of radioactivity. Additionally, skin dose assessment had been conducted for only one worker, and the calculated dose was well below the 100 millirem threshold for a skin dose assignment.

Monitoring for airborne radioactivity was extensive, as continuous air monitors (CAM) and air samplers were located throughout containment in close proximity to work areas. The data for a variety of jobs during the refueling outage demonstrated that no airborne radioactivity greater than 1 derived air concentration (DAC) was identified at the time of this inspection.

Radiation Protection coverage for specific jobs and routine rounds was effective. The inspectors observed that RPSs at the radiologically controlled area (RCA) and containment access points adequately briefed workers and exercised appropriate control of various tasks. The RPSs conducted thorough coverage of ongoing jobs, radiation hot spots, remote radiation monitor alarms, and locations that were being setup for work.

c. Conclusions

Overall, the RP staff exercised effective control of work practices and radiological conditions within the plant. Monitoring and control of contamination was successful as evidenced by the low number of personnel contaminations and the low levels of contamination detected.

R1.3 Observation of Control Rod Drive Partial Length Removal and Disposal

a. Inspection Scope (83750)

The inspectors observed the control rod drive (CRD) partial length removal and disposal activities. In addition, the inspectors attended pre-job briefings and interviewed RP staff regarding control of radiological conditions.

b. Observations and Findings

The inspectors attended pre-job briefings for the CRD Partial Length removal and disposal. The briefing consisted of a detailed review of the lifting, moving, and cutting procedures; expected radiological conditions and controls; RP coverage and hold points; safety precautions; the RWP dosimetry and dress requirements; historical case studies; and specific job responsibilities. The staff was engaged and asked appropriate questions for clarification.

The inspectors observed two CRD partial length removal and disposal evolutions and verified that radiological controls, dosimetry monitoring, required protective clothing, use of shielding, control of personnel, and low dose areas were accomplished. The dose rates were closely monitored, and the staff worked efficiently to accomplish the work quickly. As a result of the planning and lower than expected dose rates, the cutting work expended less than one-third of the estimated dose for this activity. The RP coverage for the CRD partial length work was extensive, and the RPS surveyed for discrete particles effectively.

c. Conclusions

Overall, the RP staff exercised effective control of work practices and radiological conditions in the containment related to CRD partial length removal and disposal activities. Monitoring and control of radiation worker dose was successful, as evidenced by the low collective dose as compared to dose estimates for specific jobs. The pre-job briefings for these tasks were thorough.

R1.4 Reactor Coolant System Shutdown Chemistry Controls

a. Inspection Scope (83750)

The inspectors reviewed the reactor coolant system (RCS) shutdown chemistry controls and results and interviewed chemistry supervision regarding crud burst results.

b. Observations and Findings

During the shutdown for this refueling outage, plant personnel performed an early boration of the RCS. Prior to the RCS decreasing below 400 degrees Fahrenheit, the RCS boron concentration was greater than 800 parts per million (ppm). Then, as the boron level was increased to the refueling level of 2500 ppm, hydrogen peroxide (H_2O_2) was added. The early boration, conducted in the presence of hydrogen, created an acid-reducing condition which removed iron from the primary system. Then, through the addition of H_2O_2, an acid-oxidizing condition was established which facilitated a large release of nickel and other corrosion products (crud burst) from the fuel bundles and primary system internals. Crud burst products were subsequently removed from the RCS by the purification system.

For the acid-oxidizing phase, plant staff was able to achieve and maintain the oxygen concentration between 1000-4000 parts per billion with a single addition of H_2O_2. The staff monitored radiochemistry data, which indicated that they had achieved a crud burst which was comparable to previous outages.

Discussions with the management personnel indicated that the shutdown chemistry program resulted in a notably lower source term in the primary system, and the lowest dose rates since Unit 1 startup. At the time of the inspection, the staff was not able to identify any single action that differed from previous shutdowns and led to the reduction in source term. The licensee planned to analyze the possible reasons for this favorable outcome.

c. Conclusions

The inspectors determined that the licensee had effectively implemented the shutdown chemistry program, which resulted in reduction of the source term.

R1.5 Monitoring and Assessment of Internal Exposure

a. Inspection Scope (83750)

The inspectors reviewed the licensee's program for monitoring and assessing personnel intakes of radioactive material. To assess this area, the inspectors evaluated the calibration and test program for selected whole body contamination monitors, observed monitor alarm response testing, observed monitor operations, evaluated the internal dose assessment process, and performed independent dose assessment calculations.

b. Observations and Findings

The licensee maintained beta and gamma sensitive whole body contamination monitors (Friskalls) in the RP access control area, which were used to survey workers exiting the RCA for external contamination and to detect a potential intake of radioactive material. These monitors were used to passively monitor (screen) workers for internally deposited radioactive material in lieu of whole body count analysis, and to determine if additional bioassay monitoring for potential internal dose was warranted. Less sensitive portal monitors were also maintained at access control to initially survey workers for higher levels of contamination or the diversion of radioactive material and were used by workers exiting the RCA prior to the use of the Friskalls. Inspectors observed that

workers correctly used the Friskall and portal monitors and that the RP staff responded to monitor alarms promptly. Prior to departure from the site, whole body counts were completed for contractor and other transient workers as a confirmatory assessment of radioactive material intake and verification of the effectiveness of the passive monitoring system.

Review of the Friskall calibration and surveillance test procedure and monitor test data for 1998 and the first quarter of 1999 determined that the calibration and test program was technically sound and properly implemented. The monitors were calibrated semi-annually using cobalt-60 sources traceable to the National Institute of Standards and Technology and checked daily for operability and alarm function using a check source with an activity equivalent to the monitor alarm set point. Synthetic tubing configured in a geometry that mimicked the human body and containing potassium-40 crystals was employed as the daily check source and was used to simultaneously test each of the monitor's detectors. During the inspection, the licensee successfully demonstrated the alarm sensitivity check procedure for monitors selected by the inspectors, and it was noted that the monitors' response was consistent with recent daily checks and was within procedurally specified tolerances. The detection sensitivity and low alarm set point ensured that an intake of radioactive material that approached 10% of the occupational dose limits in 10 CFR 20.1201 would be readily detected.

The licensee completed whole body count (WBC) analysis on all workers that alarmed the Friskall monitors and exhibited any level of contamination in the head and neck areas. The inspectors reviewed several personnel contamination event reports and verified that WBCs were completed for head and neck contaminations, that skin dose assessments were properly performed, and that shallow dose was assigned as appropriate. Whole body count analysis results confirmed the adequacy of the licensee's passive monitoring system.

The inspectors discussed the internal dose assessment process with the responsible plant health physicist (HP) and selectively reviewed 1997 and 1998 dose assessment calculations. Internal dose assessments were performed for all workers whose WBC results exceeded 5 nanocuries, if a worker was exposed to tritium airborne concentrations or other non-gamma emitting nuclides that exceeded specified derived air concentrations (DAC) thresholds, or as otherwise specified by RP management. The inspectors determined that the assessments were performed consistent with NRC and industry guidance and that doses were appropriately calculated. However, the inspectors noted that the internal dose assessment methodology was not specifically dictated by station procedure and that only the plant HP was well versed in the dose calculations. Although an HP at the utility's corporate office and sister station had the necessary expertise to perform the assessment, the station may be challenged to perform a timely assessment should the plant HP be unavailable.

c. Conclusions

The licensee effectively monitored the potential intake of radioactive material through the use of a passive monitoring system that was calibrated and tested in accordance with station procedure and industry guidance. Potential intakes of radioactive material were readily identified, and the plant HP assessed dose from internally deposited radioactive material appropriately.

R4 Staff Knowledge and Performance in Radiation Protection and Chemistry

R4.1 Access Control and Radiological Surveys

a. Inspection Scope (83750)

The inspectors reviewed the licensee action resulting from an incident on March 15, 1999, where the RP staff authorized an individual to leave access control after alarming a personnel contamination monitor (PCM). Also reviewed was radiological protection planning in support of a public tour.

b. Observations and Findings

Interviews with the radiation protection manager (RPM) and RPS staff indicated that the worker had worked in an area of the RCA that would have the potential for naturally occurring radon gas. The RPS assigned to follow-up the PCM alarm surveyed the radiation worker with a CM-7 alpha detector and misinterpreted the alarm and alpha detector readings as radon gas contamination. The RPS released the individual to other work activities within the controlled area and instructed him to return in two hours. Upon return, the individual alarmed the PCM again. The RPS then properly identified a particle on the inside of the individual's shoe attached to the sock. The contamination was removed for gamma spectroscopy and quantification. The analysis identified 120 nanocuries of cobalt-60. The potential skin dose as a result of the contamination outside the sock was not recordable.

The RPM issued an interim directive outlining the expectation that, prior to releasing anyone from the access control station who alarms the PCM with count rates greater than 50 counts per second, clothing must be counted on a multichannel analyzer to positively verify radon gas. Additionally, the applicable procedure was scheduled for review and revision to include this expectation. The RPM also directed a review of all radon related alarms in the previous six months to substantiate the alarm levels (counts per second) on the PCM. This study verified that radon alarms are typically lower count rate alarms than were identified during this event.

The inspector reviewed the licensee's immediate corrective action and verified that the incident was placed in the licensee's corrective action program. The licensee planned a long term corrective action of procedure review and revision. As of the date of the inspection, the Radiation Protection Implementing Procedure (RPIP) had not yet been revised. However, the temporary instruction was in place and well understood by the staff.

The inspectors reviewed the licensee's RWP and RPIP for the May 1, 1999 public tour of the Prairie Island Nuclear Generating Station. The licensee anticipated that in excess of 1,500 people would attend the open house and tour the facility in recognition of 25 years of plant operation. The plan provided a detailed route for the members of the public including RCA access control measures. The staff planned to conduct surveys of all areas along the route to assure that doses were ALARA. Additionally, the route inside the RCA would be covered with masslin type material. The public would be divided into groups, and an escort assigned to the group. A thermoluminescent dosimeter and electronic dosimeter would be issued to each group. No group or individual in the group was likely to receive 10 mrem.

c. Conclusions

The licensee took appropriate and immediate corrective action regarding misinterpretation of a contamination incident at access control, and long term corrective action in the form of procedural revision was tracked in the licensee's corrective action program. Radiological Protection planning was adequate to protect public health and safety during a planned public plant tour.

R5 Staff Training and Qualifications in Radiation Protection and Chemistry

R5.1 Staffing and Training/Qualifications for Refueling Outage

a. Inspection Scope (83750)

The inspectors reviewed the outage staffing plan for the RP program and the qualifications and training of contract RP staff. The inspectors interviewed radiation protection personnel that coordinated training and assigned duties for contract radiation protection technicians (CRPT), and reviewed training matrices and discussed the training program with licensee staff.

b. Observations and Findings

The station RP staff was supplemented with 23 CRPTs. The RP supervisory activities remained primarily a responsibility of the licensee's permanent staff, although some contract and sister station staff filled supervisory positions. The inspectors noted that there was a high return rate of CRPT staff from previous outages.

Prior to hiring CRPTs, RP supervision reviewed candidate resumes and contacted previous employers of selected candidates to verify experience and references. Industry standardized qualification criteria were established for senior and junior CRPTs. Training requirements for prospective CRPTs included successful completion of the licensee's standardized core training at its Training Center within the previous year, and a minimum score of 80% on the licensee's Health Physics Theory Exam within the previous three years. As part of the on-the-job-training process, CRPTs were trained by licensee authorized trainers and evaluated by authorized and audited evaluators.

The CRPTs were required to demonstrate proficiency in conducting radiation surveys, and to successfully complete other specific task performance evaluations based on planned duty assignments. The CRPTs for the most part, were trained for all duty assignments, and this gave the RP supervisors the option of reassigning personnel to various duties as needed. Written tests were administered and\or task performance was demonstrated to verify that procedure and task specific training was successfully completed. A qualification book maintained by the licensee documented key training and qualification information for each CRPT and was used by outage management to ensure that only qualified CRPTs were assigned specified tasks.

The inspectors noted that the training program was effective in identifying weaknesses in personnel operational practices. Appropriate actions had been taken to retrain individuals or limit the scope of authorized activities based on the outcome of the training program. For the vast majority of CRPT staff, broad authorization was granted.

Although the total number of personnel available was limited, the training and experience, especially plant specific experience, levels were very high.

c. Conclusions

Outage staffing and training for the RP program was effective. The training of contract RP staff was completed in accordance with station procedures and prepared workers for assigned outage tasks.

V. Management Meeting

X1 Exit Meeting Summary

The inspectors presented the inspection results to members of licensee management at an exit meeting on April 30, 1999. The licensee did not indicate that any materials examined during the inspection should be considered proprietary.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

J. Callahan, Superintendent of Technical Training
A. Johnson, General Superintendent of Radiation Protection and Chemistry
S. Lappegaard, Radiochemistry Supervisor
G. Malinowski, Radiation Protection Supervisor
D. Shuelke, Plant Manager
J. Sorensen, Site General Manager

NRC

M. Mitchell, Radiation Specialist
G. Shear, Chief Plant Support Branch, DRS
W. Slawinski, Senior Radiation Specialist

INSPECTION PROCEDURES USED

IP 83750: "Occupational Exposure"
IP 83729: "Occupational Exposure During Extended Outages"

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Closed

None

Discussed

None

LIST OF ACRONYMS USED

ALARA	As Low As Is Reasonably Achievable
ALI	Annual Limit of Intake
CAM	continuous air monitor
CRD	Control Rod Drive
CRPT	Contract Radiation Protection Technician
DAC	Derived Air Concentration
ECT	eddy current testing
HEPA	High Efficiency Particulate Air
HP	Health Physicist
HRA	High Radiation Area
NIST	National Institute of Standards and Technology
PCM	Personnel Contamination Monitor
ppm	parts per million
RCA	Radiologically Controlled Area
RCP	Reactor Coolant Pump
RCS	Reactor Coolant System
RP	Radiation Protection
RP&C	Radiation Protection and Chemistry
RPIP	Radiation Protection Implementing Procedures
RPM	Radiation Protection Manager
RPS	Radiation Protection Specialist
RWP	Radiation Work Permit
SG	Steam Generator
WBC	Whole Body Count

PARTIAL LISTING OF DOCUMENTS REVIEWED

Radiation Protection Implementing Procedures (RPIP)
RPIP 1004, Revision 2, “Radiation Protetion ALARA Program”;
RPIP 1160, Revision 3, “ALARA Reviews”;
RPIP 1103, Revision 10, “Visitor Dosimetry Issue”;
RPIP 1207, Revision 2, “Internal Dose Assessment”;
RPIP 1524, Revision 8, “NNC Friskall Description, Operation and Calibration”;
RPIP1704, Revision 12, “Eddy Current Testing and Steam Generator Primary Side Repair”;
RPIP 1708, Revision 4,“Reactor Coolant Pump Seal Work”;
RPIP 1725, Revision 2, “Reactor Incore Detector Thimble Replacement”; and
RPIP 7710, “Operate Fastscan Wholebody Counter”.

Radiation Work Permits (RWP)
RWP 1092, and associated ALARA Plan, “Incore Thimble Replacement”;
RWP 2001, Revision 2, “Routine Outage Inspections”;
RWP 2024, Revision 1, “Eddy Current Testing of Steam Generator Tubes, Setup/Test/Tube”; and
RWP 2048, Revision 3, “Reactor Coolant Pump Seals Remove/Inspect/Replace”.

Training Procedures
P7910L-007, Revision 6, “OJT Instructor/Evaluator Training”; and
P9080, Revision 4, “Course Outline for Contract Radiation Protection Specialist, Radiation Protection Specialist”.