

APPENDIX C

U. S. NUCLEAR REGULATORY COMMISSION

REGION IV

NRC Inspection Report: 50-458/86-01

License: NPF-40

Docket: 50-458

Licensee: Gulf States Utilities (GSU)
P.O. Box 2951
Beaumont, Texas 77704

Facility Name: River Bend Station (RBS)

Inspection At: River Bend Station, St. Francisville, Louisiana

Inspection Conducted: January 27-31, 1986

Inspector:

Blaine Murray

H. Chaney, Radiation Specialist, Facilities
Radiological Protection Section

3/4/86
Date

Approved:

Blaine Murray

B. Murray, Chief, Facilities Radiological
Protection Section

3/4/86
Date

Inspection Summary

Inspection Conducted January 27-31, 1986 (Report 50-458/86-01)

Areas Inspected: Routine, unannounced inspection of the licensee's Radiation Protection (RP) program (internal and external exposure control, respiratory protection, contamination and radioactive material control, and facilities), Emergency Plan implementing procedures, and results of the reactor power ascension radiation surveys. The inspection involved 40 inspector-hours onsite and 11 inspector-hours offsite by one NRC inspector.

Results: Within the areas inspected, one violation (see paragraph 8) and one deviation (see paragraph 9) were identified.

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DETAILS1. Persons ContactedGSU

*W. J. Cahill, Senior Vice President
 *J. Deddens, Vice President, RBNG
 *T. Plunkett, Plant Manager
 *P. F. Tomlinson, Director Quality Services
 *E. M. Cargill, Supervisor Radiological Programs
 *B. Chustz, GSU Projects
 *S. V. Desai, Chemistry Engineer
 *J. W. Evans, GSU Stenographer
 *C. L. Fantacci, Radiation Protection Supervisor
 *K. J. Giadrosich, Operations - Quality Assurance (QA)
 *D. R. Gipson, Assistant Plant Manager - Operations
 *R. Horn, Nuclear Training Department Representative
 *R. J. King, Licensing Engineer
 *W. J. Lambert, Systems Engineer
 *H. M. McCellan, Acting Plant Services Supervisor
 *J. H. McQuirter, Licensing Engineer
 *C. L. Nash, Chemistry Supervisor
 *K. E. Suhrke, Manager Plant Projects
 *M. E. Walton, Technical Assistant
 J. Cadwallader, Emergency Planning (EP) Supervisor
 J. Spivey, QA Engineer
 A. Kowalczyk, Assistant Plant Manager - Maintenance
 L. T. Owens, Employee Relations Administrator
 D. M. Ross, Radiological Health Supervisor
 E. Hensley, Radiation Protection Foreman
 B. Tunstall, Radiation Protection Foreman
 D. Wells, Radiation Protection Foreman
 B. Spell, Health Physicist
 W. Eisele, Health Physicist
 W. Hardy, Radiological Engineering Supervisor
 R. White, Radiation Protection Technician (RPT)
 J. Onorato, Senior RPT
 D. Sobera, Senior RPT
 M. Bankston, RPT

Others

*D. Chamberlain, NRC Senior Resident Inspector
 W. Jones, NRC Resident Inspector
 *J. B. Nicholas, NRC Radiation Specialist, RIV
 *R. Wise, NRC Radiation Specialist, RIV
 J. Lee, Instrument and Controls (I&C) Engineer, Stone and Webster

*Denotes those present at the exit interview on January 31, 1986.

The NRC inspector also interviewed several other licensee employees including QA/quality control (QC), I&C, and RP personnel.

2. Licensee Action on Previously Identified Inspection Findings

(Closed) Open Item (458/8414-04): Gaseous Radwaste System - This item was previously discussed in NRC Inspection Reports 50-458/84-14, 85-46, 85-53, 85-64, and 85-70, and remained open pending licensee action to complete installation and testing of the offgas system, as referenced in Section 11.3 of the Final Safety Analysis Report (FSAR). The licensee had completed installation and testing of the various components of the gaseous radwaste system (Preoperational Tests 257, 409-3, 408 1 through 4). This item is considered closed.

(Closed) Violation (458/8573-01): Failure to Provide Training - This violation was discussed in NRC Inspection Report 50-458/85-73 and involved the failure to provide training for radiation protection technicians. The licensee's corrective action was reviewed and found adequate. This item is considered closed.

(Closed) Violation (458/8573-02): Failure to Maintain Training Records - This violation was discussed in NRC Inspection Report 50-458/85-73 and involved the failure to maintain proper training records. The licensee's corrective action was reviewed and found adequate. This item is considered closed.

(Closed) Deviation (458/8573-01): Failure to Provide Training - This deviation was discussed in NRC Inspection Report 50-458/85-73 and involved the failure to provide BWR technology training as specified in the FSAR. The licensee's corrective action was reviewed and found adequate. This item is considered closed.

3. Inspector Observations

The following are observations the NRC inspector discussed with the licensee during the inspection and at the exit interview on January 31, 1986. These observations are neither violations nor unresolved items. These items were recommended for licensee consideration for program improvement, but they have no specific regulatory requirement. The licensee did not provide any specific response to these items.

- a. RP Group Stability - A high turnover rate was noted in the RP Group management and technical positions. (See paragraph 4)
- b. Personnel Dosimetry - Problems were noted in the processing of personnel exposure data. (See paragraph 6)
- c. Training - The RP group supervisors responsible for the respiratory protection program have not received training in current respiratory protection practices. (See paragraph 5)

- d. ALARA - The ALARA program does not sufficiently address the minimization of internal exposures and the use of respiratory protection equipment in prejob and post job reviews. (See paragraph 7)
- e. Contractor RPTs - The licensee places a high reliance on contracted RPTs. (See paragraph 4)
- f. Release of Radioactive Material - The licensee's survey program for potentially radioactive materials does not satisfy the recommendations of I&E Information Notice 85-92. (See paragraph 8)

4. RP Program Organization and Management Controls

The NRC inspector examined the organization and staffing of the RP organization to determine compliance with Sections 12.5, 13.1, 13.3 (Emergency Plan - EP), and 13.5 of the FSAR, 10 CFR Part 20, Facility Operating License Technical Specifications (TS) 6.2.2, 6.8.1, and 6.11, and the recommendations of NRC Regulatory Guides (RG) 1.33, 1.8, 8.8, and NUREG-0731, Section II.

The NRC inspector reviewed licensee procedures for routine and emergency activities associated with internal/external radiation exposure control, contamination control, decontamination and first-aid facilities, respiratory protection, and QA audits and reviews.

During this inspection, the Radiological Health Supervisor (external and internal dosimetry group supervisor) terminated employment with GSU effective January 31, 1986. The NRC inspector noted that within the last 6 months, personnel occupying the following positions have terminated employment with GSU: Supervisor Radiological Programs, Radiological Engineering Supervisor, Radiological Health Supervisor, and Staff Radiation Protection Specialist. The NRC inspector noted that the size of the in-house RPT staff is marginal and that the licensee would be hard pressed to handle non-routine activities if the nine contract RPTs had to be terminated. (This item was also discussed in NRC Inspection Report 50-458/85-73). The licensee is currently seeking a person to fill the Radiological Health Supervisor position. The NRC inspector reviewed QA surveillances of RP activities, RP program implementing procedures (see Attachment to this report), RP shift logs, and internal RBS correspondence concerning RP activities.

No violations or deviations were identified.

5. RP Organization Staff Qualifications and Training

The NRC inspector examined the qualifications and training of selected personnel to determine compliance with Sections 12.5, 13.2, 13.3, and 13.5 of the FSAR, 10 CFR Part 19.12, TS 6.3.1, and 6.4.1, and the recommendations of RGs 1.8, 8.2, 8.8, 8.15, and 8.27, and NUREG-0041.

The NRC inspector reviewed training records, discussed individual training achievements with licensee personnel, and reviewed personnel assignments involving dosimetry processing, whole body counting, respiratory protection equipment fit testing and maintenance, and RPT shift assignments.

The NRC inspector discussed with licensee representatives RPT qualification criteria and commitments made to the NRC (see Inspection Reports 50-458/85-05 and 85-32) regarding fully qualified RPTs and equivalent experience.

The NRC inspector noted that the two RP supervisors responsible for implementing the respiratory protection program had not received training in current respiratory protection programs.

No violations or deviations were identified.

6. External Radiation Exposure Control

The external radiation exposure control program was reviewed for compliance with Sections 12.5, and 13.3 of the FSAR, TS 6.8.1, 6.9.1.5.a, 6.10, 6.11, 6.12.1, and 6.12.2, and the requirements contained in 10 CFR Parts 17.12, and .13, and 20.101, .102, .104, .105, .202, .203, .205, .206, .405, .407, .408, and .409, and the recommendations of IE Information Notices 81-26, 82-42, 83-59, 84-59, and 85-42, in NRC Regulatory Guides (RGs) 8.2, 8.4, 8.7, 8.8, 8.13, 8.14, and 8.28, and industry standards ANSI N13.11-1983, N13.5-1972, and N13.27-1981.

The NRC inspector reviewed personnel exposure records, administrative exposure controls, record storage facilities, whole body and extremity exposure control procedures, dosimetry processing procedures, dosimetry quality control methods, data processing and reports. Inspection of station facilities was made and independent radiation dose rate surveys and verification of radiation and high radiation area controls were conducted. The NRC inspector noted that periodic posting reviews are conducted. The NRC inspector reviewed the current certification of the dosimetry processing system and the periodic in-house quality control tests of the dosimetry processing system. The licensee's exposure control program, exposure limits, implementing procedures, and protective action guidance for radiation exposures and dedicated inventories of dosimetry devices (Thermoluminescent (TLD), pocket dosimeters, and alarming dosimeters) for radiological emergencies were reviewed.

The NRC inspector noted during a review of the computer print-outs of personnel radiation exposure reports for 1985 that the licensee had been having problems with the transfer of data between one computer used for the processing of raw exposure data from TLDs and another computer that provides the main radiological control program for access control, pocket dosimeter exposure records, job exposure tracking, and exposure reports. The licensee had determined that there was a difference in the amount of exposure reported in the 1985 yearly report and that reported to have been processed by the TLD computer. The NRC inspector determined that the licensee had,

prior to this inspection, determined that the two computer exposure control system was deficient in the area of quality control over routine data input and data base management. The NRC inspector noted to the licensee during the inspection and at the exit interview that the possible problems concerning the mismanagement of personnel exposure data might be due to the large amount of manual review required to determine if final reported exposure data is accurately transferred between the two independent computer systems.

No violations or deviations were identified.

7. Internal Radiation Exposure Control

The licensee's internal radiation exposure control program including airborne radioactivity monitoring/sampling, and respiratory protection program was reviewed for compliance with Sections 12.1, 12.3, 12.5, and 13.3 of the FSAR, TS 6.3.1, 6.8.4.b, and 6.11, 10 CFR Parts 19.12, and .13, and 20.103, .201, .203, .405, .407, .408, and .409, and the recommendations of ANSI 13.1-1969, N343-1978, NUREG-0041, and RG 8.2, 8.7, 8.8, 8.9, 8.15, 8.20, and 8.26.

The NRC inspector reviewed the licensee's corporate policies, programs and activities involving routine and emergency aspects of the internal dosimetry (in-vivo and in-vitro) and respiratory protection, including agreements with offsite vendors. The licensee's operating, calibration, preuse response checks and exposure evaluation procedures for the two whole body counters (WBC) were reviewed. The NRC inspector noted that the bed type high resolution WBC was inoperable during this inspection. The NRC inspector reviewed the licensee's program for tracking of exposures to airborne radioactive materials, evaluations of exposures from WBC data, and respiratory equipment inventories for routine and emergency activities. Respiratory equipment quality control, inspection, selection, use, maintenance, and breathing air quality control procedures and records were reviewed. The licensee's program for routine determinations of airborne radioactivity concentrations within work areas and personnel breathing zones were reviewed. The licensee was noted to have procedures in place for the calibration and use of lapel air samplers (breathing zone air samplers - BZS); however, since initial start up in October of 1985, there has been no use of BZS even though areas such as routine radiochemistry sampling and laboratory work and recurring tasks such as security tours and maintenance operations could be used for initializing such a program. The NRC inspector discussed with licensee representatives the current industry practices and recommendations concerning breathing zone sampling programs. The licensee ALARA program was noted to be lacking definitive guidance on the minimization of radioactive material intakes or the use of respiratory protection equipment. This was especially noted to be missing in prejob and post job reviews for high exposure jobs.

No violations or deviations were identified.

8. Control of Radioactive Materials (RAM) and Contamination, Surveys, and Monitoring

The licensee's programs for the control of RAM and contamination, radiological surveys and monitoring were reviewed for compliance with Sections 12.5, and 13.3 of the FSAR, TS 6.8.4.b, and 6.11, 10 CFR Parts 19.12, and 20.4, .5, .201, .203, .205, .207, .301, .401, and .402, and NUREG-0737, Item III.D.3.3, and the recommendations of IE Information Notice 85-92 and IE Bulletin 80-10.

The NRC inspector inspected facilities, conducted independent gamma radiation dose rate measurements and loose surface contamination surveys, reviewed ongoing work within the containment building and turbine building, reviewed Radiation Work Permits, radiation, airborne and surface contamination surveys (routine and work related), observed analysis of radiological samples and the use of laboratory counters, response checking of instruments, and the updating of plant radiological information maps. The NRC inspector discussed with licensee representatives scheduling of surveys, release limits for material removed from radiologically controlled areas (RCA), and the licensee's current program for the segregation of radioactive waste. The NRC inspector noted that the licensee is currently surveying bagged waste removed from RCAs with a high sensitivity gamma radiation detection instrument (gamma scintillation detector) in a low background area for disposition determinations. The NRC inspector pointed out that current release limits specified at RBS for equipment and materials were above those discussed in NRC Information Notice 85-92 and significantly above the detection level of the laboratory counters. Licensee RPTs were observed for proper selection and use of radiation detection and sampling equipment. RP equipment selection, use, response check, calibration and maintenance procedures/records were reviewed.

The NRC inspector reviewed the licensee's alarm set-point program for the Digital Radiation Monitoring System. TS 3.3.7.11 states, in part, that "The radioactive gaseous effluent monitoring instrumentation channels shown in Table 3.3.7.11-1 shall be operable with their alarm/trip setpoints set to ensure that the limits of Specification 3.11.2.1 are not exceeded. The alarm/trip setpoints of these channels shall be determined and adjusted in accordance with the methodology and parameters in the Offsite Dose Calculation Manual." The action statement (a) for this TS states, in part, "With a radioactive gaseous effluent monitoring instrumentation channel alarm/trip setpoint less conservative than required by the above Specification, immediately suspend the release of radioactive gaseous effluents . . . or declare the channel inoperable." The NRC inspector determined on January 30, 1986, that the high and low alarm setpoints on the Main Plant Exhaust Duct Monitoring System noble gas activity monitor (1RMS-RE-126 one of two monitors) were set to trip at values as much as two times higher than the setpoints established using the ODCM. This is an apparent violation of TS 3.3.7.11 (458/8601-01).

Further investigation by the licensee, RBS Condition Report No. 86-122, determined that the setpoints on monitors 1RMS-RE-126 and 1RMS-RE-6A (wide

range noble gas effluent monitor for the Radwaste Waste Building Exhaust Ventilation System) had been mistakenly changed from the values established during the routine functional check on December 18, 1985. The setpoints had to be reinstalled during a routine surveillance test conducted on January 16, 1986, per station procedure STP-511-4231 following a power loss to the processors. The values used by the technician to reset the high and low radioactivity alarm setpoints were obtained from an out-of-date Stone and Webster document (S&W File No. 7247.250-329-007, RM-80 Data Base). The ODCM derived setpoint values had been previously established and a modification request (85-572) had been submitted for changing the S&W document on or about October 4, 1985. The licensee took immediate action to identify and document the problem, and reestablished the proper alarm setpoints. The NRC inspector verified that releases during the period of elevated setpoints on RE-126 and 6A did not exceed TS 3.11.2.1 values for gaseous releases and determined that releases at the most would only approach 30 percent of the allowed concentrations.

No deviations were identified.

9. Radiological Control Facilities and Equipment/Instruments

The licensee's facilities for radiological protection activities during routine and emergency situations were reviewed for compliance with Sections 12, and 13.3 (Radiological Emergency Response Plan) of the FSAR, and the recommendations of RG 1.97, 8.8, and 8.25, NUREG-0041, and NUREG-0654/FEMA-REP-1.

The NRC inspector reviewed training facilities, respirator decontamination and maintenance facilities, counting laboratories, post-accident sampling system, calibration facilities, radioactive source storage, locker and toilet facilities for workers, PCA access control points, satellite RPT office, Digital Radiation Monitoring System consoles, first-aid facilities, temporary ventilation and shielding equipment, machine shop, decontamination facilities for personnel and equipment, and emergency equipment inventories (RP response survey equipment, respiratory protection equipment, protective clothing). The NRC inspector also inspected the Service Building, main control room (MCR), Operations Support Center (OSC), and Emergency Operations Facility (EOF). The RBS Emergency Plan is set forth in Section 13.3 of the FSAR, and Appendix E to Section 13.3 establishes the dedicated equipment to be maintained at each emergency facility. Emergency Implementing Procedure (EIP) 2-103, "Emergency Equipment Inventory," provides instructions for the periodic inventory, inspection, and operational checking of emergency equipment and supplies to ensure that the equipment and supplies are available and functional (checklists are provided for each facility emergency kit). The NRC inspector reviewed the contents of selected emergency kits using the EIP-2-103 checklists. The NRC inspector noted that the checklists did not include all the equipment and supplies referenced in the FSAR. The RP group is responsible for the quarterly (as a minimum) inventory of emergency kits in accordance with Radiation Protection Procedure 0049, "Emergency Equipment Inventory". The NRC

inspector determined on January 28, 1986, that the emergency kits in the following facilities did not contain certain equipment committed to in Appendix E, Section 13.2, of the FSAR.

| <u>FACILITY</u> | <u>FSAR/EIP EQUIPMENT MISSING</u> |
|-----------------|--|
| MCR | Spare Breathing Air Bottle (EIP) Containers for RAM/Trash (FSAR) |
| OCS | Two flashlights (EIP) |
| EOF | Spare Flashlight Bulbs (FSAR) Industrial First-Aid Kit (FSAR) Four 0-500 millirem per hour Pocket Dosimeters (EIP) Disposable Safety Razors (FSAR) Nasal Irrigation Equipment (FSAR) Alarming Dosimeters (FSAR) Manual TLD Reader (FSAR) Self Contained Breathing Apparatus (FSAR) Spare Breathing Air Bottles (FSAR) Continuous Air Monitor (FSAR) Radiation Hot Spot Stickers (FSAR) |

The failure to maintain the proper equipment at emergency facilities is an apparent deviation to commitments made to the NRC (458/8601-01). The NRC inspector also noted that the personnel decontamination procedures maintained in the EOF emergency kit were not the current revision.

The licensee's operation of the post-accident sampling system (PASS) for reactor coolant and containment atmosphere was observed. The NRC inspector noted during discussions with licensee representatives that on January 29, 1986, that one of the sample lines external to the PASS cabinet developed a liquid leak. The leak originated at one of the mechanical joints that is scheduled for replacement per licensee commitments to the NRC (see NRC Inspection Report 50-458/85-70). The leak contaminated a small area of the floor near the joint and was subsequently decontaminated. The licensee is still evaluating necessary modifications for replacement of the mechanical joints on the PASS sample lines.

No violations were identified.

10. Reactor Power Ascension/Startup Radiation Surveys

The licensee's conduct of the reactor shielding surveys during power ascension testing were reviewed for compliance with the commitments in Section 14 of the FSAR, and Startup Test 1-ST-2.

The NRC inspector reviewed the test procedure and the survey results for radiation shielding surveys conducted at approximately 20 percent reactor power on December 29, 1985.

No violations or deviations were identified.

11. Exit Interview

The NRC inspector met with the licensee's representatives and the NRC resident inspector identified in paragraph 1 of this report at the conclusion of the inspection on January 31, 1986. The NRC inspector summarized the scope and the results of the inspection.

ATTACHMENT
TO NRC INSPECTION REPORT
50-458/86-01
APPENDIX C

DOCUMENTS REVIEWED

| <u>TITLE</u> | <u>REVISION</u> | <u>DATE</u> |
|---|-----------------|-------------|
| <u>River Bend Nuclear Procedures Manual (RBNP)</u> | | |
| RBNP-020, Policy Statements and Management Directive | 0 | 10/12/84 |
| PS/MD 2, River Bend Station Respiratory Protection Program Policy Statement | | 03/07/85 |
| RBNP-024, Radiation Protection Plan | 1 | 06/10/85 |
| <u>Station Operating Manual</u> | | |
| <u>Administrative Procedures (ADM)</u> | | |
| ADM-0001, Station Staff Organization, Responsibilities and Authorities | 2 | 05/03/85 |
| ADM-0006, Control of Plant Records | 3 | 01/21/86 |
| ADM-0012, Corrective Action Program | 2 | 01/13/86 |
| ADM-0025, Conduct of Radiation Protection Services | 2 | 07/20/85 |
| ADM-0036, Containment Access Management | 1 | 06/17/85 |
| ADM-0038, Radioactive Waste Management Program | 2 | 01/13/86 |
| ADM-0039, ALARA Program | 1 | 06/08/85 |
| ADM-0045, System Management and Utilization of the DRMS | 0 | 05/05/85 |
| ADM-0046, Temporary Shielding Control | 0 | 05/05/85 |
| <u>Maintenance Calibration Procedure (MCP)</u> | | |
| MCP-4183, Function Check & Calibration of the Gamma 10 Portal Monitor | 0 | 07/18/85 |
| MCP-4184, Function Check & Calibration of the APTEC 7M Hand and Foot Monitors | 0 | 11/22/85 |

| TIITLE | REVISION | DATE |
|---|----------|----------|
| <u>Surveillance Test Procedures (STP)</u> | | |
| STP-511-4232, RMS-Main Plant Exhaust Duct Monitoring System Sampler Flow Rate Monitor, Quarterly CHFunct, 18month CHCAL (1RMS-FEX126) | 2 | 12/19/85 |
| STP-511-4215, RMS-Main Plant Exhaust Duct Noble Gas Activity Monitor 18month CHCAL (1RMS-RE126) | 1 | 12/24/85 |
| STP-511-4515, RMS-Main Plant Exhaust Duct Noble Gas Activity Monitor Quarterly CHFunct (1RMS-RE126) | 1 | 12/23/85 |
| <u>Radiation Protection Procedures (RPP)</u> | | |
| RPP-0002, Operation and Calibration of the Baird Centicount APC System | 1 | 06/27/85 |
| RPP-0005, Posting of Radiologically Controlled Areas | 0 | 06/11/85 |
| RPP-0006, Radiological Surveys | 2 | 07/05/85 |
| RPP-0011, Operation and Calibration of the NMC Model DS-33/PC-11T Counting System | 1 | 07/13/85 |
| Temporary Change Notice (TCN) 85-3033 to: RPP-0013, Survey Instrument Response Testing | 1 | 06/18/85 |
| RPP-0014, Operation and Calibration of the Harshaw TASC-12 Counting System | 1 | 07/07/85 |
| RPP-0018, Personnel Decontamination | 1 | 08/24/85 |
| RPP-0019, Decontamination of Areas, Tools and Equipment | 2 | 07/06/85 |
| RPP-0021, Selection and Use of Respiratory Protection Equipment | 1 | 07/02/85 |
| RPP-0022, Respiratory Protection Equipment Cleaning, Inspection, and Repair | 1 | 06/11/85 |
| RPP-0024, Radiological Precautions for Underwater Operations | 1 | 07/02/85 |
| RPP-0026, Operation of Respirator Facepiece and Filter Test Console | 1 | 07/05/85 |
| RPP-0027, Gaseous Effluents Monitor Setpoint Determination | 0 | 12/13/85 |

| TITLE | REVISION | DATE |
|--|----------|----------|
| RPP-0029, Respiratory Protection Equipment Inventory and Issue | 1 | 07/05/85 |
| RPP-0030, Operation and Calibration of the Ludlum 300 Area Monitor | 0 | 10/25/85 |
| RPP-0032, Calibration of the MSA Fixt-Flo Lapel Air Sampler | 0 | 12/13/85 |
| RPP-0033, Setup and Operation of General Atomics Portable Continuous Atmospheric Monitor | 0 | 07/12/85 |
| TCN 85-327 to: | | |
| RPP-0035, Calibration of Digital Radiation Monitoring Process Monitors | 0 | 03/11/85 |
| RPP-0036, Calibration of Digital Radiation Monitoring System Area Monitors | 2 | 04/01/85 |
| RPP-0042, Operation of Stationary and Portable Air Filtration Systems | 1 | 07/24/85 |
| RPP-0043, Personnel Frisking | 1 | 07/05/85 |
| RPP-0048, Operation and Calibration of the Eberline RD-7 | 1 | 07/13/85 |
| RPP-0049, Emergency Equipment Inventory | 1 | 06/28/85 |
| RPP-0050, Response to Abnormal Radiological Conditions | 2 | 07/14/85 |
| TCN 85-1380 to: | | |
| RPP-0051, Operation and Calibration of the Eberline BC-4 Beta Counter | 1 | 07/01/85 |
| RPP-0053, Operation and Calibration of the Eberline Model AMS-3 Continuous Air Monitor | 1 | 06/27/85 |
| RPP-0058, Operation and Maintenance of Radioactive Vacuum Cleaners | 1 | 07/02/85 |
| RPP-0059, Portable HEPA Filtration Units, Tents, and Enclosures | 1 | 06/11/85 |
| RPP-0062, Special Decontamination Applications | 1 | 06/07/85 |
| TCN 85-4828 to: | | |
| RPP-0063, Laundry Operation, Storage, Control and Issue | 1 | 07/05/85 |
| RPP-0064, Use of Lapel Air Sampler | 1 | 06/19/85 |
| RPP-0065, Use of Multiple Dosimetry Devices | 1 | 07/24/85 |

| TITLE | REVISION | DATE |
|---|----------|----------|
| RPP-0070, Operation of the Survivair Test Console | 1 | 07/13/85 |
| RPP-0071, Cleaning and Inspection of Survivair Mark 2 SCBA's | 1 | 07/06/85 |
| RPP-0072, Maintenance of Stationary and Portable Air Filtration Systems | 1 | 07/02/85 |
| RPP-0074, Refilling SCBA Cylinders | 1 | 05/21/85 |
| RPP-0081, Operation and Calibration of the Eberline E-140/E-140N | 1 | 06/13/85 |
| RPP-0082, Operation and Calibration of the Eberline E-520 | 1 | 07/14/85 |
| RPP-0084, Operation and Calibration of the Eberline PNR-4 | 1 | 07/03/85 |
| RPP-0085, Operation and Calibration of the Eberline PRM-6 | 1 | 06/27/85 |
| RPP-0086, Operation and Calibration of the Eberline PRM-7 | 2 | 07/22/85 |
| RPP-0087, Operation and Calibration of the Eberline RM-14 | 1 | 07/05/85 |
| RPP-0088, Operation and Calibration of the Eberline RM-21 | 1 | 06/18/85 |
| RPP-0089, Operation and Calibration of the Eberline RD-2/2A | 1 | 07/05/85 |
| RPP-0091, Operation and Calibration of the Teletector - (6112 B/D) | 1 | 07/25/85 |
| RPP-0092, Calibration of the Radeco Model H-809 | 1 | 07/13/85 |
| RPP-0093, Calibration of the Staplex Model TF-1A | 1 | 06/09/85 |

Radiation Protection Section Procedures (RSP)

| | | |
|---|---|----------|
| RSP-0005, Containment Entry | 0 | 10/25/85 |
| RSP-0200, Radiation Work Permits | 1 | 06/11/85 |
| RSP-0201, Respiratory Protection Program for Radiological Areas | 1 | 06/27/85 |

| TITLE | REVISION | DATE |
|--|----------|----------|
| TCN 85-3035 to: | | |
| RSP-0202, Radiation Protection Calibration Program | 1 | 06/09/85 |
| RSP-0203, Personnel Monitoring | 1 | 08/02/85 |
| RSP-0204, Performance, Control for Respiratory Protection Equipment | 1 | 05/29/85 |
| RSP-0205, Receipt of Radioactive Material | 2 | 06/15/85 |
| RSP-0206, Prenatal Radiation Exposure Policy | 2 | 06/21/85 |
| RSP-0209, Control and Calibration of Radiation Protection Equipment | 2 | 06/07/85 |
| TCNs 85-4009, 85-4152, 85-4323 to: | | |
| RSP-0212, Drywell Entry | 1 | 07/02/85 |
| RSP-0213, Control and Handling of Radioactive Materials | 1 | 06/21/85 |
| <u>Radiation Health Physics Procedures (RHP)</u> | | |
| RHP-0001, Operation of the Panasonic Automatic TLD Reader | 2 | 06/17/85 |
| RHP-0002, Calibration of the Panasonic Automatic TLD Reader | 1 | 06/24/85 |
| RHP-0003, Cleaning and Maintenance of the Panasonic Automatic TLD Reader | 2 | 07/05/85 |
| RHP-0004, Operation of the Panasonic Manual TLD Reader | 1 | 07/24/85 |
| RHP-0005, Calibration of the Panasonic Manual TLD Reader | 1 | 07/29/85 |
| RHP-0006, Cleaning and Maintenance of the Panasonic Manual TLD Reader | 1 | 07/05/85 |
| RHP-0007, TLD Badge Selection | 2 | 06/27/85 |
| RHP-0008, Dose Determination and Reporting | 2 | 07/28/85 |
| RHP-0009, TLD Calibration Exposure | 2 | 06/21/85 |
| RHP-0010, Operation of the Shepherd Model 142-10 Panoramic Irradiator | 2 | 06/23/85 |
| RHP-0011, Cleaning and Inspection of TLD Badges and Holders | 1 | 07/13/85 |
| RHP-0012, Issue and Use of the Pocket Dosimeter | 1 | 07/02/85 |

| TITLE | REVISION | DATE |
|--|----------|----------|
| TCN 85-350 to: RHP-0013, Issue, Collection and Termination of Thermoluminescent Dosimeters | 1 | 04/29/85 |
| TCN 85-356 to: RHP-0014, Pocket Dosimeter Calibration and Control | 0 | 03/13/84 |
| RHP-0015, Operation of the Helgeson Do-It-Yourself In-Vivo Counting System | 1 | 07/13/85 |
| RHP-0016, Operation of the Helgeson Quicky In-Vivo Counting System | 0 | 06/17/85 |
| RHP-0017, Calculation of Internal Doses | 1 | 07/22/85 |
| RHP-0018, Bioassay Sample Analysis | 1 | 07/05/85 |
| TCN 85-2038 to: RHP-0019, Quantitative Mask Fit Testing | 1 | 07/05/85 |
| RHP-0020, Calibration and Maintenance of the Dynatech Model 260B Respirator Fit Test Equipment | 1 | 07/29/85 |
| RHP-0021, Dosimetry Check-In and Check-out | 1 | 07/24/85 |
| RHP-0023, Extremity TLD Badge Selection Processing and Dose Reporting | 0 | 06/25/85 |
| RHP-0024, Calibration and Calibration Verification of the NaI Segment of the Helgeson Do-It Yourself In-Vivo Counting System | 0 | 08/14/85 |
| RHP-0025, Bioassay Sample Collection | 1 | 06/23/85 |
| TCN 85-361 to: RHP-0026, Lost or Damaged Dosimetry Devices | 0 | 07/20/85 |
| RHP-0027, Occupation Exposure Records and Reports | 1 | 07/01/85 |
| RHP-0028, Intercomparison of Dosimetry Devices | 1 | 07/13/85 |
| TCN 85-362 to: RHP-0030, Calculation of Dose Assessment from Skin Contamination | 0 | 03/05/85 |
| RHP-0107, Spirometry Testing | 0 | 06/25/84 |
| <u>Station Support Procedures</u> | | |
| <u>Section 2 - Emergency Implementing Procedures (EIP) /</u> <u>Emergency Planning Procedures (EPP)</u> | | |
| EIP-2-008, Search and Rescue | 1 | 05/08/85 |

| <u>TITLE</u> | <u>REVISION</u> | <u>DATE</u> |
|---|-----------------|-------------|
| EIP-2-009, Medical Emergencies | 1 | 05/10/85 |
| EIP-2-012, Radiation Exposure Controls | 2 | 08/09/85 |
| EIP-2-013, Onsite Radiological Monitoring | 1 | 05/10/85 |
| EIP-2-014, Offsite Radiological Monitoring | 3 | 10/09/85 |
| EIP-2-015, Post-Accident Sampling Operations | 1 | 05/10/85 |
| EIP-2-016, Operations Support Center - Activation | 1 | 05/08/85 |
| EIP-2-017, Operations Support Center - Support Functions | 2 | 10/09/85 |
| EIP-2-018, Technical Support Center - Activation | 1 | 05/08/85 |
| EIP-2-019, Technical Support Center - Support Functions | 1 | 05/10/85 |
| EIP-2-020, Emergency Operations Facility - Activation | 1 | 05/10/85 |
| EIP-2-021, Emergency Operations Facility - Support Functions | 1 | 05/10/85 |
| EIP-2-022, Alternate EDF - Activation and Transfer of Functions | 1 | 05/10/85 |
| EIP-2-028, Recovery | 1 | 05/08/85 |
| EIP-2-103, Emergency Equipment Inventory | 1 | 05/08/85 |
| EPP-2-202, Selection, Training, and Qualification of the Emergency Response Organization | 0 | 10/10/85 |

Section - 7, Training Program Procedures (TPP)

| | | |
|--------------------------------------|---|----------|
| TPP-7-018, General Employee Training | 2 | 01/23/86 |
|--------------------------------------|---|----------|

General Employee Training Lesson Plan Level III
Respiratory Protection Training

Other Documents Reviewed

Training Records of:

- . Dosimetry Personnel (2)
- . Radiation Protection Technicians (3)

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RBS Operations QA Surveillances:

Radiation Protection Task Schedules, OSR2 86-01-10
Instrument Calibration Check, OSR2 85-06-25
Surveillance Test Procedure (STP) 606-8010 (R4), OSOA 85-10-53
STP 511-8207, ISOA 85-08-23
STP 402-8604 (ODCM), ISOA 85-08-11
Fuel Receipt, OSRA 85-02-11
RW Shipment, ISSZ 85-12-18
Leak Test of Sources, OSRZ 84-12-10
Evaluation of Dosimeters for NVLAP, ISRA 85-03
Calibration of Radiation Protection Instruments, OSRA 85-04
Radiation Work Permits, OSRZ 84-10

Preventative Maintenance Task Approval/Schedule for Portal Monitors

Memorandum Subject: Potential for Contamination from Radiation Monitor
Checksources, dated 11/25/85, E. M. Cargill (RBS)