UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-4005

October 4, 2002

Mr. T. W. Hardgrove, Manager
Environmental & Regulatory Services
Pathfinder Mines Corporation
935 Pendell Blvd.
P.O. Box 730
Mills, Wyoming 82644

SUBJECT: NRC INSPECTION REPORT 40-6622/02-01 AND NOTICE OF VIOLATION

Dear Mr. Hardgrove:

On September 12, 2002, the NRC completed an inspection at your Shirley Basin Mill site in Carbon County, Wyoming. The inspection consisted of a routine review of site status, decommissioning and reclamation activities, operations review, radiation protection, and environmental monitoring. The inspection findings were presented to you and other members of your staff at the conclusion of the onsite inspection. The enclosed report presents the results of that inspection.

Based on the results of this inspection, the NRC has determined that one violation of NRC requirements occurred. The violation is cited in the enclosed Notice of Violation (Notice) and the circumstances are described in detail in the subject inspection report. The violation involves Pathfinder's failures over the last 2 years to conduct the radiation and occupational safety training program in accordance with license requirements. This violation is being cited because your 11e.(2) disposal operations continue to be the most significant licensed activity at your site with the potential of exposing personnel to radioactive materials. Therefore, it is important to train personnel in radiation safety as prescribed by license requirements.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. The NRC will use your response, in part, to determine whether further enforcement action is necessary to ensure compliance with regulatory requirements. For your consideration and convenience, NRC Information Notice 96-28, "SUGGESTED GUIDANCE RELATING TO DEVELOPMENT AND IMPLEMENTATION OF CORRECTIVE ACTION," is enclosed. In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Should you have any questions concerning this inspection, please contact Mr. Louis C. Carson II at (817) 860-8221 or Jack E. Whitten at (817) 860-8197.

Sincerely,

/RA/

Dwight D. Chamberlain, Director
Division of Nuclear Materials Safety

Docket No.: 40-6622
License No.: SUA-442

Enclosures:
1. Notice of Violation
2. NRC Inspection Report
   40-6622/02-01
3. NRC Information Notice 96-28

cc w/Enclosures 1 & 2:
Mr. Robert Poyser
Pathfinder Mines Corporation
7401 Wisconsin Avenue
Bethesda, Maryland 20814-3416

Mr. David Finley
Solid and Hazardous Waste Division
Department of Environmental Quality
122 W. 25th Street
Cheyenne, Wyoming 82002

John M. Wagner
District 1 Supervisor
Land Quality Division
Herschler Building - Third Floor West
122 W. 25th Street
Cheyenne, Wyoming 82002

Mr. J. Virgona, Project Manager
U.S. Department of Energy
Grand Junction Project Office
P. O. Box 2567
2597 B 3/4 Road
Grand Junction, Colorado 81503

Mr. Pat Mackin, Assistant Director
Systems Engineering & Integration
Center for Nuclear Waste Regulatory Analyses
6220 Culebra Road
San Antonio, Texas 78238-5166

Wyoming Radiation Control Program Director

bcc w/Enclosures 1 & 2 (via ADAMS distrib.):
EWMerschoff
DMGillen
GSJanosko
ESBrummett
DDChamberlain
JEWhitten
CLCain
LCCarsonII
NMLB
MIS System
RIV Nuclear Materials File - 5th Floor

DOCUMENT NAME: S:\dnms\nmlb\lc2\20662201.wpd Final: R:_dnms\

RIV:DNMS:NMLB	AC:NMLB	D:DNMS
LCCarsonII	JEWhitten	DDChamberlain
/RA/	***/RA JECook acting for/***	***/RA/***
10/03/02	10/03/02	10/04/02

OFFICIAL RECORD COPY T=Telephone E=E-mail F=Fax

ENCLOSURE 1

NOTICE OF VIOLATION

Pathfinder Mines Corporation
Carbon County, Wyoming

Docket No. 40-6627
License No. SUA-0442

During an inspection conducted on September 12, 2002, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy And Procedure For NRC Enforcement Actions," NUREG-1600, the violation is described below:

> License Condition 11 requires, in part, that the licensee conduct operations in accordance with the statements, representations, and conditions contained in Sections 4 and 5 of the license application dated November 30, 1994, except where superseded by license conditions.
>
> License Condition 35 requires that in addition to the training program outlined in Section 5.3 of the license application, the licensee shall conduct and document the attendance at the bi-monthly safety meetings for all restricted area facility employees.
>
> Section 5.3.2 of the license application requires that all employees receive annual radiation safety refresher training, and that employees are given a written examination at the conclusion of the refresher training.
>
> Contrary to the above:
>
> (1) The licensee had not conducted nor documented the attendance at bi-monthly safety meetings for all restricted area facility employees at the frequency prescribed by License Condition 35. Specifically, during 2000 and 2001, the licensee had only conducted safety training for employees three times in each year. As of September 13, 2002, the licensee had conducted safety training three times during 2002.
>
> (2) During years 2000 and 2001, licensee employees had not received any annual radiation refresher training.
>
> This is a Severity Level IV violation (Supplement VI).

Pursuant to the provisions of 10 CFR 2.201, Pathfinder Mines Corporation, is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region IV, 611 Ryan Plaza Drive, Suite 400, Arlington, Texas 76011, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each violation: (1) the reason for the violation, or, if contested, the basis for disputing the violation or severity level, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. Your response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified

in this Notice, an order or a Demand for Information may be issued as to why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

Because your response will be placed in the NRC Public Document Room (PDR), to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the basis for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.790(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

Dated this 4th day of October 2002

ENCLOSURE 2

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket No.	40-6622
License No.	SUA-442
Report No.	40-6622/02-01
Licensee:	Pathfinder Mines Company
Facility:	Former Shirley Basin Mill
Location:	Carbon County, Wyoming
Date:	September 12, 2002
Inspector:	Louis C. Carson II, Senior Health Physicist Nuclear Materials Licensing Branch
Approved By:	Charles L. Cain, Chief Nuclear Materials Licensing Branch
Attachment:	Supplementary Inspection Information

EXECUTIVE SUMMARY

Former Shirley Basin Mill Site
NRC Inspection Report 40-6622/02-01

This routine, announced inspection included a review of the site status and decommissioning, management organization and controls, radiation protection, operations review, radioactive waste management, and environmental protection. In general, the licensee was conducting activities in accordance with the license and regulatory requirements. However, one violation was identified.

Site Status and Decommissioning for Uranium Mill Sites

- Site decommissioning activities were reviewed and found to be conducted in accordance with applicable regulatory requirements (Section 1).

Management Organization and Controls

- The licensee's organization structure was found to be in compliance with license requirements. Adequate oversight had been provided for site activities. Procedures were reviewed and were deemed adequate for the work in progress (Section 2).

- The 2001 As Low As is Reasonably Achievable (ALARA) audit report had not been conducted. Licensee management stated that the 2001 ALARA audit would be completed in October 2002 (Section 2).

- A violation was identified for failure to implement the personnel training program as required by License Conditions 11 and 35 (Section 2).

Operations Review and Radioactive Waste Management

- Site operations were being conducted in accordance with license conditions. Site fences, gates, perimeter postings, and security were adequate. Pond levels were below freeboard requirements (Section 3).

- Observations of the licensee’s 11e.(2) by-product disposal operations revealed that the material was handled in an orderly and controlled fashion.(Section 3).

Radiation Protection

- The licensee had implemented a radiation protection program that met the requirements established in 10 CFR Part 20. The radiation protection program was found to be adequate. Personnel exposures during years 2000 and 2001 were well below limits (Section 3).

- Site fences were in good condition and perimeter postings were appropriate. No health or safety hazards were identified (Section 3).

Environmental Protection

- Review of the licensee's environmental protection and land use survey programs indicated that the licensee was in compliance with license requirements (Section 4).

- The semi-annual reports revealed that radioactive effluents to the environment during years 2000, 2001, and for the first half of 2002, were below regulatory limits. Site operations had no measurable radiological impact on the nearest resident (Section 4).

Report Details

1 Site Status and Decommissioning Inspection Procedure for Uranium Mill Sites (87654)

1.1 Inspection Scope

The site status and decommissioning activities were reviewed to determine if licensee activities were being conducted in accordance with the Shirley Basin Reclamation Plan.

1.2 Observations and Findings

Site Status

Since the last inspection, decommissioning and remediation activities were limited to 11e.(2) by-product disposal, groundwater corrective action program and surveys of equipment for release offsite. Most of the mill had been reclaimed and decommissioning work completed. An interim cover had been placed over most of the tailings material. Activities in progress during the inspection included collection of environmental and groundwater monitoring samples, evaporation of excess pond water, implementation of the groundwater corrective action program, receipt and disposal of 11e.(2) by-product waste from in-situ leach facilities and routine equipment maintenance.

At the time of this inspection, the only structures remaining at the site were the office and the shop/warehouse. Activities planned for the future include continuation of groundwater cleanup activities using the two evaporation ponds. Elimination of tailings fluids and evaporation water are still necessary before the licensee can complete site reclamation. The licensee still has to install the radon barrier, final cover, and erosion protection on and around the tailings impoundments. The remediation of the evaporation ponds was not projected to occur until year 2007.

1.3 Conclusions

Site activities were reviewed and found to have been conducted in accordance with applicable license and regulatory requirements.

2 Management Organization and Controls (88005)

2.1 Inspection Scope

The licensee's organizational structure and management controls were reviewed to determine: (1) whether functional responsibilities and personnel qualifications had been clearly established and fulfilled in accordance with license conditions, and (2) what controls were in place to ensure compliance with NRC requirements.

2.2 Observations and Findings

a. Management Organization and Staff

The onsite staff consisted of four individuals; a manager, two mechanic/welders, and one electrician. The offsite staff included the radiation safety officer (RSO), reclamation manager, and a general manager.

b. Standard Operating Procedures

License Condition 33 requires that standard operating procedures (SOPs) be established for non-operational activities to include environmental monitoring, instrument calibrations, and bioassay analyses. The inspector reviewed selected site procedures during the inspection. Overall, the site procedures that had been established were adequate for the work in progress at the site. Records indicated site procedures had been reviewed on an annual basis by the RSO. The RSO had performed the annual SOP review for years 2000 - 2002. The inspector reviewed several SOPs and determined that the licensee had maintained procedures as needed to implement the requirements of License Condition 33.

c. As Low As Reasonably Achievable (ALARA) Reviews

10 CFR 20.1101(c) states that the licensee shall periodically (at least annually) review the radiation protection program content and implementation. License Condition 36 states that the licensee shall submit a copy of their audit report to the NRC. The inspector reviewed the licensee's 1999 and 2000 audit reports. The 1999 ALARA review was conducted in June 2000, and the 2000 ALARA review was completed in March 2001. These ALARA audit reports were timely and met the intent of the license. The licensee's last two annual reviews failed to identify deficiencies in the training program, which will be further discussed below in Section 2.2(c). As of September 12, 2002, the 2001 ALARA audit report had not been conducted. Licensee management stated that the 2001 ALARA audit would be completed in October 2002.

d. Training

License Condition 11 requires, in part, that the licensee conduct operations in accordance with the statements, representations, and conditions contained in Sections 4 and 5 of the license application dated November 30, 1994, except where superseded by license conditions.

License Condition 35 requires that in addition to the training program outlined in Section 5.3 of the license application, the licensee conduct and document the attendance at the bi-monthly safety meetings for all restricted area facility employees.

Section 5.3.2 of the license application requires that all employees receive annual radiation safety refresher training, and that employees are given a written examination at the conclusion of the refresher training.

The inspector reviewed the licensee's training record from May through August 2002. For new employees and contractors, training that had been conducted and documented met the requirements of 10CFR19.12, "Instructions to Workers," and Section 5.3, "Training," of the license application.

The inspector reviewed the licensee's "Tool Box Safety Meeting Reports" that had been conducted since the last inspection. These safety reports covered both radiological and industrial safety issues. Licensee employees were identified as attending the safety meetings that were conducted, but contract workers were not identified. During 2000 and 2001, the licensee had only conducted safety training for employees three times in each year. As of September 13, 2002, the licensee had conducted safety training three times during 2002. Overall, the licensee had not fully conducted bi-monthly safety meetings at the frequency prescribed by License Condition 35 or documented the attendance for all restricted area facility employees. This was an example of a violation of the personnel training requirements in License Conditions 11 and 35 (VIO: 40-6622/0201-01(1)).

The inspector's review also revealed that during years 2000, 2001, and as of September 2002, licensee employees had not received any annual radiation refresher training as required by Section 5.3.2 of the license application. This was a second example of a violation of the personnel training requirements in License Condition 11 and Section 5.3 of the license application (VIO: 40-6622/0201-01(2)).

Licensee management did not have an explanation for not maintaining the training program as required by the license. The inspector considered that conducting training for site personnel was important considering that disposal of 11e.(2) by-product material was the main activity onsite with the potential for exposure to radioactive material.

2.1 Conclusions

The 2001 ALARA audit report had not been conducted, which was considered untimely. Licensee management stated that the 2001 ALARA audit would be completed in October 2002. A violation was identified for failure to implement the personnel training program as required by License Conditions 11 and 35.

3 Operations Review (88020) and Radioactive Waste Management (88035)

3.1 Inspection Scope

The objective of this portion of the inspection was to verify that site activities were being conducted in accordance with applicable regulations and the conditions of the license, and to ensure that operational controls were adequate to protect the health and safety of the workers and members of the general public.

3.2 Observations and Findings

a. Site Tour

Buildings, fences, gates, and operating equipment were observed during the site tours. The access gates were functional and the fences were adequately posted as required by 10 CFR 20.1902. No health or safety hazards were identified during the site tours, and the inspector determined that licensed material was adequately secured within the site property as required by 10 CFR 20.1801.

There were three tailings impoundments at the site. Tailings Impoundment 3 initially held only tailings solutions and no solids. This pond is currently being used for disposal of byproduct material from offsite sources. Portions of Tailings Impoundment 4 were covered with fluids from the tailings dewatering system as well as precipitation. Approximately two-thirds of Tailings Impoundment No. 4 has been covered with an interim cover. The remainder of the pond cannot be covered until the pond water has been removed or has evaporated. Once Tailings Impoundment 4 has been dewatered, the licensee can continue reclamation. Tailings Impoundment 5 has been dewatered since 1996, and an interim cover had been placed over the tailings material.

License Condition 37 states that the licensee shall maintain a minimum of 3 feet of freeboard in Tailings Impoundment 4 and a minimum of 4.5 feet of freeboard in Tailings Impoundment 5. These two ponds were observed during the site tour and the inspector noted that the actual pond levels were well below the freeboard limits. The licensee routinely measured the pond levels and reported these values in the semi-annual effluent reports.

b. License Compliance Review

License Condition 41 requires the licensee to implement a tailings impoundment embankment inspection program. Based on the inspector's review of the licensee's records for 2001 - August 2002, it was concluded that the licensee had conducted and documented the daily visual embankment inspections. The inspector toured the mill tailings area, evaporation ponds, and dam areas and observed no degradation of the embankments and dams.

License Condition 46 authorizes the licensee to dispose of 11e.(2) byproduct material generated either onsite or at other licensed facilities. The licensee received material from three offsite in-situ leach facilities during 2000 - 2002. The licensee received and disposed of 55 shipments in 2000, 73 shipment in 2001 and 83 shipments so far in 2002. The inspector noted the steady increase of 11e.(2) byproduct material disposal shipments. However, the volume of 11e.(2) byproduct material being disposed of was within licensed limits. During the site tour, the inspector observed the current waste disposal pit. The pit was located in Tailings Impoundment 3. The pit was a long, narrow trench that contained several recent waste shipment disposals. The licensee planned to cover the waste material with soil when the trench was completely full.

3.4 Conclusions

Site operations were being conducted in accordance with the conditions of the license. Site fences, gates, and postings were adequate. Site security was also adequate. No health or safety hazard was identified during the tour. Observations of the licensee's 11e.(2) disposal operations revealed that the material was handled in an orderly and controlled fashion.

4 Radiation Protection (83822)

4.1 Inspection Scope

This portion of the inspection effort was to determine if the licensee's radiation protection program was in compliance with the license and 10 CFR Part 20 requirements.

4.2 Observations and Findings

a. Inspection Radiation Surveys

The inspector performed a limited independent radiological survey using an NRC-issued Ludlum Model 19 microRoentgen meter (Serial Number 33541, calibration due date of December 10, 2002), that was calibrated to radium-226. Background radiation measured 0.030-0.045 millirems per hour (mr/hr). The highest exposure rate reading, 0.4 mr/hr was observed near the Tailings Impoundment 3 that also is the 11e.(2) byproduct material disposal site. The exposure rate near Tailings Impoundment 4 measured about 0.2 mr/hr. Overall the site radiation levels remained unchanged since the previous inspection.

b. Occupational Exposure Monitoring

The licensee's exposure monitoring program was reviewed to ensure that no worker had exceeded the occupational dose limits specified in 10 CFR 20.1201. The program consisted of issuance of thermoluminescent dosimeters (TLDs) to site workers, collection of air particulate samples, and collection of bioassay samples. The inspector reviewed the licensee's records for calendar years 2000 and 2001, and the inspector concluded that no individual exceeded the NRC's annual dose limits. TLDs issued to site workers during 2000 and 2001 had been processed by an accredited National Voluntary Laboratory Accreditation Program. Four individuals were monitored during 2000 and 2001. The licensee's TLD records indicate that the individuals received no measurable exposure (0 millirems) during the last 2 years.

The licensee had obtained air samples for determination of natural uranium, thorium-230, and radon daughter concentrations. These sample results were used to determine internal occupational exposures based on the amount of time a worker spent in a particular area of the site with known radioactive material concentration levels. Based on the air sample results, the licensee assigned occupational doses to site workers that varied from 0.2 to 0.7 rems during 2000 and 2001. The assigned doses were mainly from exposure to thorium-230. The inspector noted that the air particulate sample results between 2000 and 2001 were about the same.

The licensee assigned the annual occupational doses to site workers based on the TLD and air sample results. Since the doses measured from the TLDs were zero, no deep dose equivalent values were assigned to the workers. Therefore, the total effective dose equivalents that were assigned to the workers were based exclusively from internal doses. These values were well below the NRC's total effective dose equivalent limit of 5 rems listed in 10 CFR 20.1201.

As a check for intake of radioactive materials, the licensee collected bioassay samples from selected site workers. Under the current license, bioassay samples are required only at the discretion of the RSO. During 2000 and 2001, urine samples were collected from site workers involved with the disposal of 11e.(2) byproduct material from offsite facilities and analyzed for natural uranium concentrations. All sample results were less than the detectable limit of 5 micrograms of uranium per liter of uranium.

c. Contamination Control

License Condition 18 states that the release of equipment or packages from the restricted area shall be in accordance with the document entitled, "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct or Source Materials." The inspector reviewed the equipment release survey records for 2000 - August 2002. The licensee's records indicated that equipment had been released for restricted use at other licensed facilities and for unrestricted use. The licensee had surveyed most vehicles that had been released from the site during the last 2 years. Occasionally, equipment had been removed from the restricted area for maintenance. No equipment had been released from the site with residual contamination in excess of the limits contained in the NRC's guidelines.

d. Instrument Calibrations

License Condition 34 states that radiation monitoring equipment shall be calibrated after repairs and at least semi-annually or at the manufacturer's suggested interval, whichever is sooner. The licensee's instrument calibration records were reviewed. The records indicated that the licensee's four radiological survey meters, four environmental air samplers, and four low volume air samplers had been calibrated at the frequency specified in the license.

4.3 Conclusions

The licensee had implemented a radiation protection program that met the requirements established in 10 CFR Part 20 and the conditions of the license. A radiological survey was conducted by the inspector, and low ambient gamma exposure rates were observed in most areas of the site. Occupational exposures were well below the NRC's annual dose limits.

5 Environmental Monitoring (88045)

5.1 Inspection Scope

The environmental monitoring program was reviewed to assess the effectiveness of the licensee's programs and to evaluate the impact, if any, of site activities on the local environment.

5.2 Observations and Findings

a. Environmental Monitoring

License Condition 38 states that the licensee shall implement the environmental and effluent monitoring program as specified in Table 5.8 and Figure 2-2 of the amended application dated November 1994. Further, License Condition 22 states that the results of all effluent and environmental monitoring required by the license shall be reported in accordance with 10 CFR 40.65. The inspector reviewed the licensee's semi-annual effluent reports for 2000 - June 2002. The semi-annual reports were submitted to the NRC in a timely manner.

The licensee performed air particulate, radon, surface water, soil, vegetation, and ambient gamma radiation monitoring around the site. The stations included a background and a nearest resident station.

Airborne radioactivity concentrations were sampled at the four stations. The air sample filter composites were analyzed quarterly for their natural uranium, thorium-230, radium-226, and lead-210 concentrations. The inspector compared sample results for 2000, 2001, and the first half of 2002 to the effluent concentration limits provided in 10 CFR Part 20, Appendix B, Table 2. All sample results were well below the applicable effluent concentration limits listed in 10 CFR Part 20, Appendix B, Table 2.

Environmental TLDs were used to measure the ambient gamma exposures at the four sample stations. The TLDs were exchanged on a quarterly frequency. The exposure rates at the onsite sample Station 2R were consistently above background levels, while the exposure rates at the nearest resident sample Station 7R were consistently below background levels. The sample results for years 2000, 2001, and the first half of 2002 were all similar.

Soil samples were obtained annually at the four stations. The samples were analyzed for natural uranium, radium-226, thorium-230, and lead-210 concentrations. The inspector noted that the nearest resident sample station results were consistently below the background sample results.

Vegetation samples were obtained annually at the four stations. The samples were analyzed for radium-226 and lead-210 concentrations. No clear trend was observed during the review of this program area.

Surface water samples were obtained on a semi-annual basis at eight stream locations. The samples were analyzed for a number of chemical and radiological constituents. The sample results for each semi-annual report for years 2000, 2001, and the first half of 2002 were all similar.

b. Annual Land Use Survey

License Condition 21 requires that the licensee conduct an annual survey of land use in the area within 5 miles of the mill and submit a report of this survey to the NRC each year. The Land Use Survey Report describes significant land use changes by private residences, nonresidential structures, grazing areas, and potable water and agricultural wells. The inspector reviewed the licensee's 2000 and 2001 Land Use Survey Reports that were submitted to the NRC. The land use around the site had not changed appreciably in years. The inspector concluded that the licensee's 2000 and 2001 Land Use Survey Reports met the intent of License Condition 21.

c. Public Dose Assessment

The inspector performed a public dose assessment to ensure that site operations did not result in a total effective dose equivalent to individual members of the public in excess of 100 millirems per year, the annual limit specified in 10 CFR 20.1301. The environmental monitoring data for 2000, 2001, and the first half of 2002 were used in this assessment, including the data for the nearest resident station 7R and background Station 4R. The nearest resident was located about 3.5 miles from the site. The inspector noted that the radon-222 concentrations were consistently below background levels at the nearest resident station, the air particulate sample results at the nearest resident station were at background levels, and the quarterly ambient gamma exposures at the nearest resident station were consistently below the background exposures. Therefore, the site had no measurable impact on the nearest resident.

4.3 Conclusions

The licensee had implemented the environmental and effluent monitoring programs at the site. Site operations had no measurable radiological impact on the nearest resident.

Sample results were reported to the NRC in the semi-annual effluent reports. The licensee submitted annual land use surveys to the NRC as required.

5 Exit Meeting Summary

The inspector presented the inspection results to the representatives of the licensee at the conclusion of the inspection on September 12, 2002. Licensee representatives acknowledged the findings as presented. The licensee did not identify any information reviewed by the inspector as propriety information.

ATTACHMENT

PARTIAL LIST OF PERSONS CONTACTED

Licensee

T. Hardgrove, Manager, Environmental & Regulatory Services/Radiation Safety Officer
K. Hurley, Manager, Personnel & Safety

ITEMS OPENED, CLOSED AND DISCUSSED

Opened

40-6622/0201-01	VIO	Failure to implement the personnel training as required by License Conditions 11 and 35.

Closed

None

Discussed

None

LIST OF ACRONYMS USED

ALARA	As Low As is Reasonably Achievable
CFR	Code of Federal Regulations
mr/hr	millirems per hour
PDR	Public Document Room
RSO	radiation safety officer
TLD	thermoluminescent dosimeter