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99-377,00-219,00-257

24



RESPONSE TO FREEDOM OF INFORMATION ACT (FOIA) / PRIVACY ACT (PA) REQUEST

RESPONSE TYPE



FINAL



PARTIAL

DATE

NOV 16 2000

REQUESTER

Ms. Kimberly Boggiatto

PART I. - INFORMATION RELEASED

- No additional agency records subject to the request have been located.
- Requested records are available through another public distribution program. See Comments section.
- APPENDICES Agency records subject to the request that are identified in the listed appendices are already available for public inspection and copying at the NRC Public Document Room.
- APPENDICES VV Agency records subject to the request that are identified in the listed appendices are being made available for public inspection and copying at the NRC Public Document Room.
- Enclosed is information on how you may obtain access to and the charges for copying records located at the NRC Public Document Room, 2120 L Street, NW, Washington, DC.
- APPENDICES VV Agency records subject to the request are enclosed.
- Records subject to the request that contain information originated by or of interest to another Federal agency have been referred to that agency (see comments section) for a disclosure determination and direct response to you.
- We are continuing to process your request.
- See Comments.

PART I.A - FEES

AMOUNT *

\$

You will be billed by NRC for the amount listed.

None. Minimum fee threshold not met.

You will receive a refund for the amount listed.

Fees waived.

* See comments for details

PART I.B - INFORMATION NOT LOCATED OR WITHHELD FROM DISCLOSURE

- No agency records subject to the request have been located.
- Certain information in the requested records is being withheld from disclosure pursuant to the exemptions described in and for the reasons stated in Part II.
- This determination may be appealed within 30 days by writing to the FOIA/PA Officer, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001. Clearly state on the envelope and in the letter that it is a "FOIA/PA Appeal."

PART I.C COMMENTS (Use attached Comments continuation page if required)

SIGNATURE - FREEDOM OF INFORMATION ACT AND PRIVACY ACT OFFICER

Carol Ann Reed

RESPONSE TO FREEDOM OF INFORMATION ACT (FOIA) / PRIVACY ACT (PA) REQUEST

99-377,00-219,00-257

NOV 16 2000

PART II.A - APPLICABLE EXEMPTIONS

APPENDICES
VV

Records subject to the request that are described in the enclosed Appendices are being withheld in their entirety or in part under the Exemption No.(s) of the PA and/or the FOIA as indicated below (5 U.S.C. 552a and/or 5 U.S.C. 552(b)).

- Exemption 1: The withheld information is properly classified pursuant to Executive Order 12958.
- Exemption 2: The withheld information relates solely to the internal personnel rules and procedures of NRC.
- Exemption 3: The withheld information is specifically exempted from public disclosure by statute indicated.
 - Sections 141-145 of the Atomic Energy Act, which prohibits the disclosure of Restricted Data or Formerly Restricted Data (42 U.S.C. 2161-2165).
 - Section 147 of the Atomic Energy Act, which prohibits the disclosure of Unclassified Safeguards Information (42 U.S.C. 2167).
 - 41 U.S.C., Section 253(b), subsection (m)(1), prohibits the disclosure of contractor proposals in the possession and control of an executive agency to any person under section 552 of Title 5, U.S.C. (the FOIA), except when incorporated into the contract between the agency and the submitter of the proposal.
- Exemption 4: The withheld information is a trade secret or commercial or financial information that is being withheld for the reason(s) indicated.
 - The information is considered to be confidential business (proprietary) information.
 - The information is considered to be proprietary because it concerns a licensee's or applicant's physical protection or material control and accounting program for special nuclear material pursuant to 10 CFR 2.790(d)(1).
 - The information was submitted by a foreign source and received in confidence pursuant to 10 CFR 2.790(d)(2).
- Exemption 5: The withheld information consists of interagency or intraagency records that are not available through discovery during litigation. Applicable privileges:
 - Deliberative process: Disclosure of predecisional information would tend to inhibit the open and frank exchange of ideas essential to the deliberative process. Where records are withheld in their entirety, the facts are inextricably intertwined with the predecisional information. There also are no reasonably segregable factual portions because the release of the facts would permit an indirect inquiry into the predecisional process of the agency.
 - Attorney work-product privilege. (Documents prepared by an attorney in contemplation of litigation)
 - Attorney-client privilege. (Confidential communications between an attorney and his/her client)
- Exemption 6: The withheld information is exempted from public disclosure because its disclosure would result in a clearly unwarranted invasion of personal privacy.
- Exemption 7: The withheld information consists of records compiled for law enforcement purposes and is being withheld for the reason(s) indicated.
 - (A) Disclosure could reasonably be expected to interfere with an enforcement proceeding (e.g., it would reveal the scope, direction, and focus of enforcement efforts, and thus could possibly allow recipients to take action to shield potential wrongdoing or a violation of NRC requirements from investigators).
 - (C) Disclosure would constitute an unwarranted invasion of personal privacy.
 - (D) The information consists of names of individuals and other information the disclosure of which could reasonably be expected to reveal identities of confidential sources.
 - (E) Disclosure would reveal techniques and procedures for law enforcement investigations or prosecutions, or guidelines that could reasonably be expected to risk circumvention of the law.
 - (F) Disclosure could reasonably be expected to endanger the life or physical safety of an individual.
- OTHER (Specify)

PART II.B - DENYING OFFICIALS

Pursuant to 10 CFR 9.25(g), 9.25(h), and/or 9.65(b) of the U.S. Nuclear Regulatory Commission regulations, it has been determined that the information withheld is exempt from production or disclosure, and that its production or disclosure is contrary to the public interest. The person responsible for the denial are those officials identified below as denying officials and the FOIA/PA Officer for any denials that may be appealed to the Executive Director for Operations (EDO).

DENYING OFFICIAL	TITLE/OFFICE	RECORDS DENIED	APPELLATE OFFICIAL		
			EDO	SECY	IG
Ellis W. Merschoff	Regional Administrator, Region IV	Appendix VV	✓		

Appeal must be made in writing within 30 days of receipt of this response. Appeals should be mailed to the FOIA/Privacy Act Officer, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, for action by the appropriate appellate official(s). You should clearly state on the envelope and letter that it is a "FOIA/PA Appeal."

Re: FOIA/PA-99-377
00-219
00-257

**APPENDIX VV
RECORDS BEING WITHHELD IN PART**

<u>NO.</u>	<u>DATE</u>	<u>DESCRIPTION/(PAGE COUNT)/EXEMPTIONS</u>
1.	05/26/95	Memo to J. Lieberman, OE from J. Callan, RA re: Recommended Enforcement Action - Atlas Corp. (EA 94-117) (59 pages) EX. 6



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV

611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

May 26, 1995

MEMORANDUM TO: James Lieberman, Director, Office of Enforcement
FROM: *Samuel Adams*
L. J. Callan, Regional Administrator
SUBJECT: RECOMMENDED ENFORCEMENT ACTION - ATLAS CORPORATION
(EA 94-117)

I am recommending the issuance of the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (\$6,250) to Atlas Corporation for a 1993 violation that led to contaminated materials being released from Atlas's Moab Mill during the mill's dismantling.

This recommendation is based on inspections in late 1993, early 1994 and in 1995, and an investigation report (4-93-047R) issued February 9, 1995. OI referred its findings to the Department of Justice, which declined prosecution on April 11, 1995. An enforcement conference was held on May 16, 1995, and was transcribed.

The justification for this enforcement action is contained in the enclosed enforcement worksheet. Please note that we do not support basing an enforcement action on deliberate misconduct on the part of Atlas Corporation's radiation control coordinator for the reasons stated in the worksheet. We have discussed our perspectives on this matter with the OI field office.

This case should not be included in calculating regional timeliness statistics. It should be exempt from regional timeliness because of OI/DOJ involvement. Please note that while Regional Counsel agrees with this approach, he was not available to review this package.

I am enclosing a number of documents relevant to this enforcement recommendation. The OI report and the transcript of the enforcement conference are not enclosed since both were previously distributed to all parties. Many of the documents related to this case were provided as exhibits to the OI report. Please contact my enforcement staff for clarification or additional information.

Enclosures:

1. Draft Enforcement Correspondence
2. Regional Recommendation Worksheet
3. Inspection reports dated 4/20/95
4. "Guidelines for Decontamination ..." dated August 1987
5. Document Sequences, undated (RIV document outlining requirements)
6. Declaration of Dale Edwards dated 5/16/95
7. Declaration of Robert E. Mori dated 5/14/95

~~PROPOSED ENFORCEMENT ACTION~~
~~NOT FOR PUBLIC DISCLOSURE WITHOUT APPROVAL OF THE DIRECTOR/OE~~

Information in this record was deleted
in accordance with the Freedom of Information
Act, exemptions 6

FOIA- 99-37700-249,00-257

vll

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV

611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

DRAFT

June XX, 1995

EA 94-117

Atlas Corporation
ATTN: Richard E. Blubaugh, Vice President
Environmental and Governmental Affairs
Republic Plaza
370 Seventeenth Street, Suite 3150
Denver, Colorado 80202

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY -
\$6,250

This is in reference to NRC Inspection Report Nos. 040-3453/93-02 and 95-01 and NRC Investigation Case No. 4-93-047R. The referenced inspection reports were issued on April 20, 1995, and identified two apparent violations that were being considered for escalated enforcement action. The referenced investigation, which was conducted by the NRC's Office of Investigations (OI), concluded that deliberate misconduct on the part of Atlas' radiation control coordinator and a former subcontractor had resulted in one of the apparent violations. These matters were discussed with you and other Atlas Corporation (Atlas) representatives at an enforcement conference in the NRC's Arlington, Texas office on May 16, 1995. A list of conference participants is enclosed.

The NRC has reviewed the information developed during its inspection and investigation, as well as the information obtained from the enforcement conference, and has concluded that the violations described in the inspection reports did occur. These violations involved: 1) a failure to assure that scrap material and components released from Atlas' Moab Mill met NRC release limits for radioactive contamination; and 2) a subsequent failure to conduct one of a series of required audits of Atlas' enhanced contamination survey program for materials being released from the mill.

The first violation, which is of most concern to the NRC, was discovered after a former Atlas subcontractor publicly alleged in October 1993 that material had been released from the mill that exceeded the NRC's contamination limits. The former subcontractor alleged that he had knowingly removed contaminated material from the mill site by taking advantage of a poorly implemented survey program.

The former subcontractor's allegations were confirmed by the NRC and various state radiation control agencies which conducted surveys of material that had been shipped from the Moab Mill to other locations, e.g., ball mills that had been shipped to Spokane, Washington. Furthermore, when the NRC conducted an inspection at the mill site beginning on November 30, 1993, approximately one month after the subcontractor's allegations were made public, NRC inspectors surveyed scrap steel and other material that had previously been released from

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the mill for unrestricted use and found a number of items that exceeded the contamination limits. This finding indicates that Atlas' short-term actions in response to the allegations were neither prompt nor complete.

The second violation occurred after Atlas remedied weaknesses in its program for surveying potentially contaminated material. Although Atlas had proceduralized its commitment to perform quarterly audits of the enhanced program, one such audit was conducted at an interval that exceeded a calendar quarter. This violation is not considered significant because there are no indications that the enhanced survey program was improperly or inadequately implemented. However, it is another example of Atlas not ensuring the completeness of its corrective actions.

The NRC gave careful consideration to whether Atlas' radiation control coordinator's actions constituted deliberate violations of NRC requirements. As indicated in the letter transmitting the inspection reports, the NRC's investigation found that the radiation control coordinator had deliberately failed to conduct complete and accurate surveys and to obtain wipe test results before releasing material from the site. During the enforcement conference, the radiation control coordinator stated that he had never knowingly permitted material that was contaminated in excess of the limits to be released. He also defended his survey practices, stating that wipe surveys for removable contamination were required only if instrument surveys indicated that there was a potential for removable contamination to be present. This appears to be consistent with Atlas' survey procedures, which stated that "Each peice (sic) is monitored for total Alpha and Beta gamma and wipe tests are done on the higher peices (sic) where the total alpha and beta gamma showed the highest." The NRC has concluded that the radiation control coordinator's actions were not indicative of an intent to violate NRC requirements. Therefore, no enforcement action against the radiation control coordinator will be considered.

In retrospect, the contamination surveys performed by Atlas' radiation control coordinator were insufficient to assure that the contamination limits were met in all cases. Another important factor in this case was Atlas' failure to exercise adequate control over potentially contaminated material and its subcontractor's activities, creating the opportunity for the subcontractor to remove material from the mill that had not been adequately cleaned and surveyed. It is apparent that the subcontractor, who was motivated by profit, exploited weaknesses in Atlas' control of this material and survey program in order to get more salvagable material off-site.

The NRC acknowledges the corrective actions that Atlas has taken since the first violation was discovered, including the hiring of a consultant to assist in developing comprehensive revisions to its survey program. NRC's inspections in early 1994 and 1995 confirmed that the revised survey program was being effectively implemented and identified no additional instances of contaminated material being inappropriately released from the mill site.

PROPOSED ENFORCEMENT ACTION

~~NOT FOR PUBLIC DISCLOSURE WITHOUT APPROVAL OF THE DIRECTOR/OE~~

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Notwithstanding these corrective actions, Atlas' failure to adequately control potentially contaminated material, as well as its failure to adequately control the activities of its subcontractor, are matters of significant regulatory concern because they resulted in sending contaminated material to buyers who in most cases had no reason to believe that the material they purchased was radioactively contaminated. The fact that this material posed virtually no health or safety hazard is immaterial in determining the significance of this violation because it was not an isolated failure. This violation reflected programmatic weaknesses in Atlas' system for assuring that the contamination limits were met and that contaminated material was properly controlled. This violation has been classified at Severity Level III in accordance with Supplement IV of the "General Statement of Policy and Procedure for NRC Enforcement Actions," (Enforcement Policy) 10 CFR Part 2, Appendix C.

To emphasize the importance of controlling contaminated material and the activities of contractors, I have been authorized to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) in the amount of \$6,250 for the Severity Level III violation discussed above and in the Notice. The base value of a civil penalty for a Severity III violation is \$5,000. The civil penalty adjustment factors in Section VI.B.2 of the Enforcement Policy were considered and resulted in the following: 1) No adjustment was made under the *Identification* factor because the violation was identified after third-party allegations; 2) Your failure to take prompt action to survey material that was outside the mill's restricted area, as discussed above, as well as your failure to complete a required audit, were balanced against the enhancements you made in the survey program and resulted in a 25-percent increase under the *Corrective Action* factor; and 3) Your generally good performance as a licensee of the NRC was considered but did not result in any mitigation under the *Licensee Performance* factor because the activity involved in this violation, the dismantling of the mill, was substantially different than the past activity of maintaining an idle mill. The other adjustment factors were considered, but no further adjustments to the base civil penalty were considered appropriate. Thus, on balance, the base penalty was increased by 25 percent, resulting in a net increase of \$1,250.

The second violation involving the failure to perform a required audit has been classified at Severity Level IV, as indicated in Section II of the enclosed Notice, and was not assessed a civil penalty.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

~~PROPOSED ENFORCEMENT ACTION
NOT FOR PUBLIC DISCLOSURE WITHOUT APPROVAL OF THE DIRECTOR/OE~~

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In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response will be placed in the NRC Public Document Room (PDR). To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction. However, if you find it necessary to include such information, you should clearly indicate the specific information that you desire not to be placed in the PDR, and provide the legal basis to support your request for withholding the information from the public.

The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, Pub. L. No. 96.511.

Sincerely,

L. J. Callan
Regional Administrator

Docket No. 040-3453
License No. SUA-917

Enclosures:

- 1) Notice of Violation and Proposed Imposition of Civil Penalty
- 2) List of Enforcement Conference Participants

cc w/Enclosures: State of Utah

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NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

DRAFT

Atlas Corporation
Denver, Colorado

Docket No. 040-3453
License No. SUA-917
EA 94-117

During NRC inspections conducted on November 30 to December 2, 1993, and February 9, 1995, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, the Nuclear Regulatory Commission proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violations and associated civil penalties are set forth below:

I. Violation Assessed a Civil Penalty

License Condition 18 requires that released equipment or packages from the restricted area be in accordance with the document entitled, "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of License for Byproduct or Source Materials," dated September, 1984. The guidelines specify the radionuclides and radiation exposure rate limits to be used in decontamination and survey of equipment prior to release for unrestricted use. For natural uranium the specified limits are for alpha contamination not to exceed 15,000 disintegrations per minute per 100 square centimeters (dpm/100 cm²) maximum and 5,000 dpm/100 cm² average, with removable contamination not to exceed 1,000 dpm/100 cm².

Contrary to the above, equipment and materials were released from the licensee's restricted area during 1993 which exceeded the limits specified in the guidelines for unrestricted use. For example, during an NRC inspection conducted November 30 to December 2, 1993, scrap materials released for unrestricted use and contained within a staging area outside of the restricted area were found with an average alpha contamination level in excess of 20,000 dpm/100 cm². Also during 1993, two ball mills with contamination in excess of the limits were released for unrestricted use and shipped to a scrap dealer in Spokane, Washington.

This is a Severity Level III Violation (Supplement VI).
Civil Penalty - \$6,250

II. Violation Not Assessed a Civil Penalty

License Condition 23 requires, in part, that standard written procedures be established and maintained for all activities involving radioactive materials that are handled, processed or stored.

~~PROPOSED ENFORCEMENT ACTION~~
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The licensee's Procedure 4.0, entitled "Survey Locations, Frequencies, and Analyses," provides revised equipment release criteria as implemented during the first quarter of 1994. The procedure requires that a radiation protection consultant conduct two radiation protection and compliance audits of the implementation of the procedure within the first 3 months of procedure implementation. Subsequently, the licensee or their designee is to conduct quarterly audits of the procedure for the next year that equipment is being released offsite.

Contrary to the above, a quarterly audit was not conducted between May 3, 1994, the date of the second (and final) consultant's audit, and August 30, 1994, an interval greater than a quarter.

This is a Severity Level IV Violation (Supplement VI).

Pursuant to the provisions of 10 CFR 2.201, Atlas Corporation is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice of Violation and Proposed Imposition of Civil Penalty (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) admission or denial of the alleged violation, (2) the reasons for the violation if admitted, and if denied, the reasons why, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps that will be taken to avoid further violations, and (5) the date when full compliance will be achieved.

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. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, the Licensee may pay the civil penalty by letter addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, money order, or electronic transfer payable to the Treasurer of the United States in the amount of the civil penalty proposed above, or the cumulative amount of the civil penalties if more than one civil penalty is proposed, or may protest imposition of the civil penalty in whole or in part, by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission. Should the Licensee fail to answer within the time specified, an order imposing the civil penalty will be issued. Should the Licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny the violation listed in this Notice, in whole or in part, (2) demonstrate

~~PROPOSED ENFORCEMENT ACTION~~
~~NOT FOR PUBLIC DISCLOSURE WITHOUT APPROVAL OF THE DIRECTOR/OE~~

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extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty in whole or in part, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the factors addressed in Section VI.B.2 of 10 CFR Part 2, Appendix C, should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the Licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

Upon failure to pay any civil penalty due which subsequently has been determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282c.

The responses noted above (Reply to Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852-2738, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region IV, 611 Ryan Plaza Drive, Suite 400, Arlington, Texas 76011.

Dated at Arlington, Texas
this _____ day of June 1995

~~PROPOSED ENFORCEMENT ACTION
NOT FOR PUBLIC DISCLOSURE WITHOUT APPROVAL OF THE DIRECTOR/OE~~

Enclosure 2

DRAFT

Enforcement Conference participants

May 16, 1995
NRC Region IV office, Arlington, Texas

Atlas Corporation representatives

Richard Blubaugh, Vice President, Environmental & Governmental Affairs
Dale Edwards, Radiation Control Coordinator
Anthony J. Thompson, Counsel to Atlas; Shaw, Pittman, Potts & Trowbridge

U.S. Nuclear Regulatory Commission, Region IV representatives

Sam Collins, Director, Division of Radiation Safety & Safeguards
Chuck Cain, Chief, Fuel Cycle and Decommissioning Branch
Linda McLean, Senior Health Physicist, Fuel Cycle and Decommissioning Branch
J. Vincent Everett, Health Physicist, Fuel Cycle and Decommissioning Branch
William Brown, Regional Counsel
Gary Sanborn, Enforcement Officer

U.S. Nuclear Regulatory Commission, Headquarters representatives

Susan Chidakei, Senior Attorney, Office of the General Counsel
Geoffrey Cant, Enforcement Specialist, Office of Enforcement

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- 1 -

* * REGION IV ENFORCEMENT ACTION RECOMMENDATION WORKSHEET * *

EA 94-117

Licensee: Atlas Corporation

Facility/Location: Moab Mill

A. Recommended Enforcement Action

We recommend that Atlas Corporation be assessed a civil penalty based on its failure to assure that materials released for unrestricted use were within the contamination limits established by License Condition 18. In addition, we recommend that no action be taken against Atlas' radiation control coordinator because we do not believe we can support an enforcement action based on deliberate misconduct (see F, Additional Information). Finally, we recommend that we not pursue enforcement action against a subcontractor to Atlas, even though he may have engaged in deliberate misconduct (see F, Additional Information).

B. Brief Summary of Inspection/Investigation Findings

The inspection was conducted in response to allegations and confirmed that Atlas had released scrap and other materials from the mill that were contaminated in excess of limits established by License Condition 18, which references NRC guidelines. OI investigated and concluded that Atlas' radiation control coordinator "deliberately failed to conduct complete and accurate surveys and to obtain wipe test results as required by the NRC to ensure material contaminated by radiation above the NRC release criteria was not released from the Atlas mill site." OI also concluded that a subcontractor to Atlas "admitted to deliberately removing what he knew to be contaminated material from the mill site." OI did not implicate Atlas management in any deliberate violations.

The inspection also identified a secondary violation involving Atlas' failure to conduct one of several audits that were supposed to have been done following Atlas' development of revised survey procedures.

C. Analysis of Root Cause & Message to be Provided to Licensee

In retrospect, the surveys performed by Atlas' radiation control coordinator were insufficient to assure that the contamination limits were met in all cases. A secondary cause in this case was Atlas' failure to exercise adequate control over potentially contaminated material and the activities of its subcontractor, creating the opportunity for the subcontractor to remove material from the mill that had not been adequately cleaned and surveyed.

~~PROPOSED ENFORCEMENT ACTION~~
~~NOT FOR PUBLIC RELEASE WITHOUT APPROVAL OF THE DIRECTOR, OE~~

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D. Basis for Severity Level (Safety Significance)

Supplement IV, C.8 (1993 edition) -- "A release for unrestricted use of contaminated or radioactive material or equipment that poses a realistic potential for significant exposure to members of the public, or that reflects a programmatic (rather than isolated) weakness in the radiation control program."

Supplement IV, C.11 (1993 EDITION) -- "A significant failure to control licensed material."

The violation in this case reflects a programmatic weakness in the radiation control program as well as a significant failure to control licensed material and therefore warrants classification at Severity Level III.

In accordance with the policy, the severity level could be increased due to willfulness. However, we do not recommend an increase because we do not believe that Atlas personnel engaged in deliberate misconduct. Atlas personnel were negligent in not exercising adequate control over potentially contaminated material and in not assuring that surveys were sufficient in all cases to meet the contamination limits. This negligence was exploited by a subcontractor, whose deliberate actions contributed to or caused the violation. In our view, the violation is appropriately classified at Severity Level III.

E. Escalation and Mitigation Factors

Base civil penalty - \$5,000

Identification: [maximum adjustment +/- 50%]

No adjustment. The violation (or problem requiring corrective action as it is thought of in the draft, revised enforcement policy) was confirmed by the NRC and state radiation control authorities after third-party allegations were made. Clearly there is no reason in this case to give the licensee any credit for identification. Based on the violation in this case being identified only after allegations were made, and the fact that the alleged had a role in causing the violations by exploiting weaknesses in the licensee's control of contaminated material, we recommend no adjustment.

Corrective Action: [maximum adjustment +/- 50%]

Increase by 25%. Although the licensee hired a consultant and developed a thorough survey program in response to this problem, the licensee's

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initial corrective actions were inadequate. Nearly one month after the allegations were aired publicly, NRC inspectors identified a number of items which had been released from the mill for unrestricted use but which were contaminated above the limits. These items were located in the staging area just outside the mill's restricted area and might have been shipped had they not been checked by the NRC inspectors. In addition, the licensee did not complete one of the audits that it committed to in response to the problem (this was the second violation identified during the follow-up inspections). Balancing these oversights against the licensee's comprehensive actions, we recommend partial escalation.

Licensee Performance: [maximum adjustment +/- 100%]

No adjustment. Although Atlas' inspection history prior to the discovery of this problem was good and relatively violation-free, we recommend that no adjustment be made because the dismantling of the mill reflects an activity that is markedly different from maintaining an idle mill. Thus, we view the licensee's compliance history as having little relevance to the activity that was occurring when the violation was discovered.

Prior Opportunity to Identify: [maximum adjustment +100%]

No adjustment. Atlas did not appear to have had any specific prior opportunities to have discovered and corrected the problem. Although some material had been returned to Atlas by scrapyards during the summer of 1993, before the allegations were made, none of the returned material appeared to be contaminated above NRC limits when resurveyed. Thus, these incidents did not suggest to Atlas' radiation control coordinator that they may be violating NRC requirements and in fact may have reinforced his perception that any contamination that was present was below NRC release limits.

Multiple Occurrences: [maximum adjustment +100%]

No adjustment. The severity level III violation is based on a programmatic weakness in the licensee's survey program, not on the individual instances of releasing material above the release limits. There appears to be no basis for escalation.

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Duration: [maximum adjustment +100%]

No adjustment. Duration is assumed in characterizing the violation as a programmatic concern. We recommend that duration not be used as an escalation factor.

Adjusted Civil Penalty - \$6,250

F. Additional Information

1. OI concluded that Atlas' radiation control coordinator, [redacted] deliberately failed to conduct complete and accurate surveys and failed to count wipes before material was released from the mill site. Our perspective following the enforcement conference is that it would be difficult to base an enforcement action on this conclusion. First, there is no evidence that [redacted] deliberately permitted material contaminated above the release limits to be released from the site. Even [redacted] said that [redacted] would not have intentionally let anything leave the site that he knew was still "hot," and blamed the problem on [redacted] negligence and poor method of monitoring. [redacted] monitored everything, but he did a poor job of it (OI report, Page 16). Although we agree that [redacted] surveys were not, in retrospect, complete in every case, this seems to have occurred due to negligence, not a deliberate failure.

With regard to not counting the wipes before releasing material in some cases, [redacted] explained during the enforcement conference that he did this only when his instrument surveys for alpha contamination did not indicate a potential alpha contamination problem. [redacted] stated that everything was monitored for alpha contamination by instrument survey, and that wipes were not required if the instrument survey did not indicate a potential problem. This view is consistent with the procedures that Atlas had developed (handwritten procedures, OI Exhibit 4) which stated that "Each peice (sic) is monitored for total Alpha and Beta gamma and wipe tests are done on the higher peices (sic) where the total alpha and beta gamma showed the highest." The NRC Guidelines referenced in License Condition 18, which form the basis for the violation, do not discuss survey methodology; they establish only the limits for contamination of material that is to be released for unrestricted use. Thus, while [redacted] surveys may not have been sufficient to prevent contaminated material from leaving the mill site, there does not appear to be sufficient evidence to conclude that [redacted] deliberately violated procedures or license conditions.

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2. OI also implicated a subcontractor, [REDACTED], in wrongdoing. The subcontractor told OI that he had knowingly removed contaminated material from the mill. As a matter of policy, we are not recommending that enforcement action against the subcontractor be pursued. First, it is unlikely that [REDACTED] a demolition contractor, is currently, or in the future will be, involved in NRC-licensed activities (he told OI that he did not understand when he took the Atlas job how the contamination problem would affect his work and ability to salvage materials). Thus, tracking him down to pursue enforcement action may not be worth the expenditure of resources. Secondly, Atlas, not the subcontractor, was responsible for controlling material and conducting surveys to assure that the release limits were met. The subcontractor claimed to have taken material out that was inadequately surveyed; by doing so, he exploited what he knew to be weaknesses in Atlas' control of contaminated material. We believe the enforcement action in this case should be focused on Atlas' failure to adequately control material and oversee the subcontractor's activities. Finally, although not all share this view, taking enforcement action against [REDACTED] may not be appropriate from a policy standpoint since [REDACTED] blew the whistle on this problem. Had he not, it is not clear if or when it might have been discovered.

G. **Date Inspection Ended:** OI report issued 2/9/95; DOJ declined 4/11/95.
Exempt from Timeliness: Should be exempt from regional timeliness based on OI and DOJ.
Basis for Exemption: OI/DOJ.

H. **Regional Counsel Review**
No Legal Objection Dated:

Regional counsel is on concurrence for escalated enforcement action.

I. **This Case Meets the Criteria for a Delegated Case**

No

Enforcement Coordinator: Gary Sanborn

DATE: 5/23/95

Document Name: G:\EA\EA94117.WST

PROPOSED ENFORCEMENT ACTION
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UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV

611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

April 20, 1995

EA: 94-117

Atlas Corporation
ATTN: Richard E. Blubaugh, Vice President
Environmental and Governmental Affairs
Republic Plaza
370 Seventeenth Street, Suite 3150
Denver, Colorado 80202

SUBJECT: NRC INSPECTION REPORTS 40-3453/93-02, 40-3453/95-01, and
NOTICE OF VIOLATION

This refers to the inspection conducted by Messrs. Dana Ward and Pete Garcia of the former Uranium Recovery Field Office, Denver, Colorado, from November 30 to December 2, 1993, and to the followup inspection conducted by Dana Ward on February 10 and April 13-14, 1994. These inspections included reviews of activities authorized for the possession of licensed materials associated with Atlas Corporation's former uranium mill facility located in Moab, Utah, under NRC License SUA-917. At the conclusion of these inspections, the findings were discussed with members of your staff. The enclosed NRC Inspection Report 40-3453/93-02 documents these inspections.

In addition, this letter refers to the special, unannounced inspection conducted by Ms. M. Linda McLean accompanied by Mr. Charles L. Cain of this office on February 9, 1995, and to the telephonic conversation with the licensee's consultant, Dr. Noel Savignac, on February 13, 1995. The enclosed NRC Inspection Report 40-3453/95-01 documents this inspection.

The inspections were examinations of activities conducted under the license as they relate to radiation safety and to compliance with the Commission's rules and regulations and the conditions of the license. The inspections consisted of selective examinations of procedures and representative records, interviews of personnel, independent measurements, and observation of activities in progress.

Based on the results of these inspections, two apparent violations were identified that are being considered for escalated enforcement action in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), 10 CFR Part 2, Appendix C. Accordingly, no Notice of Violation is presently being issued for these two violations. One apparent violation involved the failure to perform and document properly the release of equipment and materials from the restricted area in accordance with accepted decontamination and release criteria. The second apparent violation involved the failure to conduct one of four quarterly audits of your procedures for release of equipment and material from the restricted area. In addition, please be advised that the number and characterization of apparent violations described in the enclosed inspection reports may change as a result of further NRC review.

An enforcement conference to discuss these apparent violations has been scheduled for May 16, 1995, at 1:00 p.m. CDT in our office in Arlington, Texas. This meeting was confirmed by telephonic conversation between Richard E. Blubaugh, and Charles L. Cain and M. Linda McLean of our office on April 17, 1995. We understand from this discussion that both Mr. Blubaugh and Mr. Dale Edwards plan to be in attendance at the conference. This discussion also served as an exit briefing for the inspection conducted on February 9, 1995, and included discussion of the second apparent violation mentioned above.

As you know, an investigation was initiated by the NRC Region IV Office of Investigations to determine if employees at Atlas Uranium Mill deliberately failed to properly survey radioactive scrap material resulting in the release of equipment and/or material that exceeded the NRC release criteria. Based on the evidence developed during this investigation, it is concluded that Atlas' Radiation Control Coordinator deliberately failed to conduct complete and accurate surveys and to obtain wipe test results as required by the NRC to ensure material contaminated by radiation above the NRC release criteria was not released from the Atlas mill site. A subcontractor admitted to deliberately removing what he knew to be contaminated material from the site.

This matter will also be a subject for discussion during the conference. In preparation we recommend that you review Section VIII of the NRC Enforcement Policy entitled "Enforcement Action Involving Individuals."

The decision to hold an enforcement conference does not mean that the NRC has determined that a violation has occurred or that enforcement action will be taken. The purposes of this conference are to discuss the apparent violations, their cause and safety significance; to provide you the opportunity to point out any errors in our inspection report; and to provide an opportunity for you to present your proposed corrective action.

In addition, this is an opportunity for you to provide any information concerning your perspectives on 1) the severity of the violations, 2) the application of the factors that the NRC considers when it determines the amount of a civil penalty that may be assessed in accordance with Section VI.B.2 of the Enforcement Policy, and 3) any other application of the Enforcement Policy to this case, including the exercise of discretion in accordance with Section VII. You will be advised by separate correspondence of the results of our deliberations on this matter. No response regarding these apparent violations is required at this time.

Furthermore, based on the results of the 1993-94 inspection, certain other of your activities appeared to be in violation of NRC requirements, as specified in the enclosed Notice of Violation (Notice). This violation involved the failure to utilize proper lower limits of detection for analysis of effluent and environmental samples.

In regard to this violation you are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with 10 CFR Part 2.790 of NRC's "Rules of Practice," a copy of this letter and its enclosure will be placed in the NRC Public Document Room. The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, Pub. L. No. 96.511.

Should you have any questions concerning these inspections, we will be pleased to discuss them with you.

Sincerely,



Samuel J. Collins, Director
Division of Radiation Safety
and Safeguards

Docket: 40-3453
License: SUA-917

Enclosures:

1. Notice of Violation
2. NRC Inspection Report 40-3453/93-02
3. NRC Inspection Report 40-3453/95-01

cc:

Atlas Corporation
ATTN: Dale Edwards
Radiation Control Coordinator
P.O. Box 1207
Moab, Utah 84532

State of Utah
Department of Environmental Quality
Division of Radiation Control
ATTN: William J. Sinclair, Director
168 North 1950 West
Salt Lake City, Utah 84115-4850

bcc:
 DMB - Original (IE-07)
 LJCallan, RA
 SJCollins, D/DRSS
 RAScarano, DD/DRSS
 DWeiss, OC/LFDCB (MS 9 E10)(TWFN)
 JHolonich, NMSS/DWM/HLUR (MS 7 J9)(TWFN)
 CLCain, DRSS/FCDB
 GFSanborn, RA/EO
 JLieberman, OE (MS 7 H5)
 WLBrown, RC
 LCCarson, DRSS/FCDB
 RJEvans, DRSS/FCDB
 JVEverett, DRSS/FCDB
 MLMcLean, DRSS/FCDB
 GMVasquez, DRSS/FCDB
 ATMullins, NMSS/DWM/H (MS 7 J9)(TWFN)
 MHFliegel, NMSS/DWN/H (MS 7 J9)(TWFN)
 MIS System
 RIV Files - 5th Floor
 FCDB Files

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NAME	MLMcLean	<input checked="" type="checkbox"/>	CLCain	<input checked="" type="checkbox"/>	GFSanborn	<input checked="" type="checkbox"/>	RAScarano	<input checked="" type="checkbox"/>	SJCollins	<input checked="" type="checkbox"/>
DATE	4/15/95		4/19/95		4/20/95		4/21/95		4/22/95	

ENCLOSURE 1

NOTICE OF VIOLATION

Atlas Corporation
Moab Uranium Mill
Moab, Utah 84532

Docket No. 40-3453
License No. SUA-917

During an NRC inspection conducted on November 30 to December 2, 1993, and February 10 and April 13-14, 1994, one violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, the violation is listed below:

License Condition No. 49.C of Source Material License SUA-917 requires that the licensee utilize lower limits of detection (LLDs) in accordance with Section 5 of Regulatory Guide 4.14, Revision 1, Dated April 1980, for analysis of effluent and environmental samples. Regulatory Guide 4.14, Revision 1, Section 5 gives LLDs for Ra-226, Th-230, and Pb-210. When actual concentrations exceed the stated LLDs, Section 5 states that the licensee need not meet these LLDs if the standard deviation estimated for the random error of the analysis is no greater than 10 percent of the measured value.

Contrary to the above, the licensee's contractor laboratory was using laboratory methods with LLDs which do not meet the criteria given in Regulatory Guide 4.14 for Ra-226, Th-230, and Pb-210. Furthermore, when the inspectors reviewed selected surface water sample analyses, it was noted that the contractor laboratory met neither the LLD nor the estimated standard deviation criteria.

This is a Severity Level IV Violation (Supplement VI).

Pursuant to the provisions of 10 CFR 2.201, Atlas Corporation is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555, with a copy to the Regional Administrator, 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, (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. If an adequate reply is not received within the time specified in this Notice, an order or a Demand for Information may be issued to show cause 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.

Dated at Arlington, Texas
this *20th* day of *April* 1995

ENCLOSURE 2

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Inspection Reports: 40-3453/93-02

License: SUA-917

Licensee: Atlas Corporation
370 17th Street, Suite 3150
Denver, Colorado 80202

Facility Name: The former Moab Uranium Mill

Inspection At: Moab, Utah

Inspection Conducted: November 30 - December 2, 1993 and
February 10 and April 13-14, 1994

Inspectors: Dana Ward, Project Manager
Pete J. Garcia, Jr., Senior Project Manager
Former NRC Uranium Recovery Field Office

Approved:

Charles L. Cain
Charles L. Cain, Chief
Fuel Cycle and Decommissioning Branch

4/19/95
Date

Inspection Summary

Areas Inspected: The inspection conducted on November 30 - December 2, 1993 was a routine, announced inspection of the uranium mill decommissioning operations and radiation safety program including: Management Organization and Controls/Operations Review; Operator Training/Retraining; Radiation Protection; Radioactive Waste Management; and Environmental Protection. The followup inspection conducted on February 10 and April 13-14, 1994, included a review of the licensee's procedures for release of equipment and material from the restricted area.

Results:

- The licensee's organization and management controls complied with the requirements of the license. In addition, a staffing deficiency had been eliminated by the hiring of two radiation safety technicians (Section 2).
- No problems were identified with the licensee's training program (Section 3).

- The release of materials, such as the exhaust fan and scrap iron, which exceeded release criteria was identified as an apparent violation of License Condition No. 18 (Section 4).
- Many of the mill components were in staging areas awaiting radiological clearance or shipment to various facilities for recycling (Section 4).
- The licensee continues to place interim cover on the tailings pond as conditions allow (Section 5).
- Lower Limit of Detection requirements were not met for analysis of effluent and environmental samples. This was identified as a violation (Section 6).

Summary of Inspection Findings:

- Apparent Violation 40-3453/9302-01 was opened (Section 4).
- Violation 40-3453 9302-02 was opened (Section 6).

Attachment:

- Personnel Contacted and Exit Meeting

DETAILS

1 PLANT STATUS

During this inspection period, Atlas Corporation (Atlas) was in the process of decommissioning the mill building. This work was being conducted by various contractors under the direction of the Radiation Control Coordinator (RCC) and Contract Manager/Assistant Radiation Technician (CM/ART). Some mill components and structural materials had been removed and placed into staging areas for radiological survey and release or burial within the tailings impoundment area. During the November 30-December 2, 1993, inspection it was determined that items were released from the restricted area that failed release criteria. In response to that finding, Atlas returned all available released items back into the restricted area. Atlas had previously suspended release of equipment and materials from site as stated in their letter dated November 18, 1993, which was confirmed by NRC's Confirmatory Action Letter dated November 22, 1993. Under a revised equipment and materials release program, with audits performed by an independent health physics contractor, and authorization from the NRC, Atlas on February 10, 1994, resumed their release program.

During the inspection of April 13-14, 1994, the tailings pond was noted to contain water from a storm event a few days prior to the inspection. The tailings pond had been noted to be dry during the November 30-December 2, 1993, inspection visit. Earth moving equipment was active in placing additional interim cover during the April inspection. The inspector observed on April 14, 1994, where several hundred cubic yards of cover placed on top of the cell had sunk into the saturated portion of the tailings. Additional drying of the tailings is expected to be necessary before Atlas can place interim cover over the entire cell.

2 MANAGEMENT ORGANIZATION AND CONTROLS (88005) OPERATIONS REVIEW (88020)

The inspectors reviewed the licensee's organizational structure and management controls to determine whether functional responsibilities and personnel qualifications had been clearly established and fulfilled and to determine what controls were in place to ensure review and compliance with requirements.

The inspectors also reviewed licensee operations to determine compliance with applicable requirements specified in the license.

2.1 Discussion

The Atlas organizational structure related to decommissioning and reclamation activities remains basically unchanged since the last inspection. The RCC had the responsibility for implementation of the site's radiation safety program. The CM/ART assisted the RCC in day-to-day radiation protection and materials release activities when necessary. The RCC and CM/ART had equal authority at

the site and reported directly to the Vice President of Environmental and Governmental Affairs (VPE&GA) who was located in Denver, Colorado.

The licensee had made one change to the organizational structure since the site visit conducted on February 10, 1993. In response to concerns by the NRC, Atlas employed two additional experienced radiation safety technicians to assist the RCC in the release of equipment and materials off site. The new hires were employed in response to verbal and written concerns from the NRC that the staffing level was not sufficient to conduct a full scale materials release program. Atlas believes that this revised staffing level is sufficient to assure compliance with the license for the facility and to provide for the radiological health and industrial safety of the workers during decommissioning activities.

The licensee conducted daily inspections of all active work areas. The RCC stated that no problems with radiological health and safety were noted during these inspections. Reports containing summary information on the daily inspections were sent to the VPE&GA on a monthly basis for his review. The inspectors reviewed copies of these reports and found no areas of concern. The Atlas staff also conducted tailings embankment inspections, as required by License Condition No. 20, five days a week. No concerns were noted by the inspectors during the review of the embankment inspection reports. Monthly inspections were also conducted of the restricted area fence line by the RCC, and a report was written of the findings. The inspectors noted no problems with the overall integrity of the fence line during the inspections. Very few radioactive materials signs were observed along the west fence line. The RCC stated that he continually replaces these signs, and that they are taken down by vandals as fast as he can put them up. This item was addressed in the last inspection report. The inspector did observe that the west fence line did contain a number of "No Trespassing" signs.

Written procedures maintained by the licensee were reviewed by the inspectors. The content of the procedures appeared to be appropriate. The RCC was noted to have reviewed each procedure annually as required by License Condition No. 23. Copies of some of the procedures had been sent to Denver for review by the VPE&GA. Two sets of procedures were kept on site for use by the RCC and CM/ART.

The licensee had issued 324 Radiation Work Permits since January 1, 1994. An RWP was issued daily for each work crew and each task performed. This system of RWP issuance produced a large number of permits. The inspector reviewed a representative sample of the permits issued and noted that they were in good order. Most of the permits had been issued for various tasks in the former mill structure or ore pad area which is currently used as the decontamination compound.

2.2 Conclusion

The inspectors concluded that the licensee's program in this area was conducted in accordance with license requirements. In addition, the

inspectors noted that a staffing deficiency has been eliminated by the hiring of two radiation safety technicians.

3 OPERATOR TRAINING AND RETRAINING (88010)

The inspectors reviewed licensee training and retraining program to determine compliance with applicable requirements and license conditions.

3.1 Discussion

The inspectors reviewed records of training provided to the employees and contractors. The inspectors noted that all Atlas site personnel and contractor employees had been provided 3 hours of radiation safety training. The content of the training was as recommended in Regulatory Guide 8.31. A written test was given to all workers with an 85 percent correct score needed to attain a passing grade. The licensee also provided prenatal radiation training as recommended by Regulatory Guide 8.13 to all female workers. All visitors to the facility were required to read and sign an information statement on the radiological and safety hazards found on site.

Both the RCC and the CM/ART received radiation safety training in September 1993. This training satisfied the requirement of License Condition No. 31 which requires that the RCC take radiation safety training once every two years.

Safety meetings were not regularly scheduled by the RCC but were conducted on a need basis only. No safety meetings had been conducted by the RCC in 1994. The RCC did state that the decommissioning contractor conducted their own safety meetings. The RCC also stated that he checks industrial safety during his inspections and brings any problems noted to the attention of the contractor.

3.2 Conclusion

No problems were identified during the inspector's review of the licensee's training program.

4 RADIATION PROTECTION (83822)

The inspectors reviewed the licensee's radiation protection program to determine compliance with the license application and 10 CFR Part 20.

4.1 Discussion

During each inspection the licensee's materials and equipment release program was under close scrutiny. The licensee had been releasing large amounts of scrap steel for unrestricted use. There were public allegations that items had been taken from site without the knowledge of the RCC. These allegations were being reviewed by the NRC Office of Investigations. The inspectors determined that the licensee's release program was deficient and that items

had been removed from site with incomplete radiological surveys. These findings are discussed in Section 4.5 below.

4.2 Internal Exposure Determination

The inspectors reviewed records of the internal exposure determination program implemented at the facility. Samples were collected monthly from six locations and quarterly from two locations using a high volume air sampler calibrated to draw 20 liters per minute (lpm). The samples were analyzed on site fluorometrically.

Personal air samplers were used for jobs where the licensee wanted to determine the exposure for one person or small groups of people doing the same work. The licensee uses pumps which are calibrated with a bubble tube to operate at about 3 lpm. Samplers were calibrated before and after each use to determine as accurately as possible the flow rate during operation. Pumps were started and issued to a worker at the beginning of the job, then collected and turned off when the task was completed. The workers were not allowed to activate nor deactivate a sampler during any phase of the operation. Adjustments for sampler downtime were made in the exposure calculation determination.

Radon daughter samples were collected quarterly at 6 locations. Samples were collected using an air sampler calibrated before and after each use. The normal flow range of the sampler was between 18 and 22 lpm. If any samples were over 10 percent of the maximum permissible concentration (MPC) from Part 20 effluent standards, sampling would go to monthly. No monthly sampling was necessary since the last inspection.

A review of the concentration data for all internal sampling data showed that the levels were very low since the last inspection. It was noted for both area airborne and personal air samplers that concentrations were less than 10 percent of the regulatory limits.

4.2 Bioassay and Respiratory Protection

The inspectors reviewed the bioassay program in effect at the facility. All workers were tested for urinary uranium prior to starting the job and at termination of work. Routine samples were collected monthly from all workers. Samples were also collected when the RCC determined a need for additional sampling. Samples were analyzed by a vendor laboratory which used a limit of detection of 5 micrograms per liter ($\mu\text{g}/\text{l}$). A review of the bioassay data indicated that one sample at 18 $\mu\text{g}/\text{l}$ exceeded the initial action level of 15 $\mu\text{g}/\text{l}$. Retesting of this individual produced a result under the action level.

The licensee has an approved respiratory protection program in effect but has rarely issued any respirators since the last inspection due to the very low airborne concentrations. The RCC said that respirators were needed during the dismantling of the yellowcake processing equipment. This work was conducted under an RWP. The inspectors reviewed the exposure data for this operation

and found no concerns. All workers that may use a respirator were given physical examinations and training in accordance with Regulatory Guide 8.15. Written procedures for respiratory protection were reviewed and found to be adequate.

4.3 External Exposure Control

Atlas issued thermoluminescent dosimeters (TLDs) to all site personnel. TLDs are regularly issued to all Atlas employees and all contractor personnel that frequent the restricted area. TLD exchanges were noted to be quarterly. The highest result recorded was for a worker engaged in the dismantling of yellowcake processing equipment at 100 millirem for the second quarter of 1993. This worker also had the highest annual exposure at 330 millirem.

The licensee conducts gamma surveys of seven areas within the mill complex on a quarterly basis. These areas include the ball mill, solvent extraction area, hearth dryer, and scrubber. Many of these areas have been decommissioned and the licensee no longer conducts surveys at these locations. The values ranged from 0.36 to 2.2 milliRoentgen per hour (mR/hr) with the highest readings obtained in the ball mill area.

4.4 Contamination Control

Control of personnel contamination was achieved by requiring all workers and visitors to monitor themselves prior to leaving the restricted area. Visitors are escorted and if necessary were frisked by the RCC or designee prior to exiting the facility. Showers were available to all personnel for contamination control and industrial safety purposes. Quarterly spot checks of workers leaving the site were performed by the RCC.

The licensee performed weekly contamination surveys of the change room, lunch room, and offices used by workers within the restricted area. Removable alpha surveys were conducted using swipes to determine the level of alpha contamination. A review of the data indicated no concerns, with the values ranging from 30 to 118 dpm/100 cm².

4.5 Release of Equipment and Materials from Site

A large amount of scrap material has been released from the Atlas site during mill decommissioning activities, which were conducted primarily between November 1992 and September 1993. A former contractor who worked at the site alleged in October 1993 that scrap material had routinely been improperly released from the site. Prior to the issuance of a Confirmatory Action Letter by the NRC on November 22, 1993, all release surveys had been conducted by the RCC with the assistance of one contractor employee. Items which met release limits were left on the decontamination pad to be removed from the restricted area by the salvage contractor. Items which did not meet release limits were

marked with spray paint and were to be left on site. The licensee's survey procedure is discussed in more detail later in this section.

During the November 30 to December 2, 1993, inspection period, the inspectors conducted radiological surveys of materials released for unrestricted use from the restricted area. These materials, which include scrap metals and mill equipment for resale, were placed in a staging area outside the north boundary of the restricted area adjacent to the fine ore bins. The inspectors conducted both alpha and beta-gamma surveys on approximately 30 percent of the scrap materials and equipment contained in the staging area. Also surveyed during the inspection was a quantity of scrap steel placed on a nearby flat bed trailer in preparation for shipment to a scrap processor.

Atlas is required by License Condition No. 18 of Source Material License SUA-917 to implement criteria for release of materials from the site for unrestricted use as specified in "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of License for Byproduct or Source Material" dated September 1984. For alpha emitters three criteria apply as follows: For direct measurements, contamination levels shall not exceed 5,000 dpm/100 cm² averaged over one square meter, or a maximum value of 15,000 dpm/100 cm². Removable contamination shall not exceed 1,000 dpm/100 cm². For beta/gamma emitters, no item shall exceed surface contamination levels of 0.2 mrad/hr at 1 cm, average, and 1.0 mrad/hr at 1 cm maximum.

The scrap materials contained within the staging area were surveyed in the presence of the RCC. Two steel I-beams were located which had red Xs spray painted on one surface by site personnel indicating that these items had exceeded the release criteria and should not have left the restricted area. Measurements taken on these I-beams by the inspectors found an average alpha contamination level over 20,000 dpm/100 cm², and an average beta-gamma level of 0.7 mR/hr, confirming that the items with the red X should not have left the restricted area.

Two additional unmarked I-beams were located in the staging area which had levels in excess of the average alpha release criteria at 8,333 dpm/100 cm². Two 4-foot lengths of 3-inch diameter ferrous pipe were also noted with an average alpha contamination level of 16,667 dpm/100 cm² and one pipe had a high spot of 20,833 dpm/100 cm². Several sheets of corrugated steel were located that exceeded 41.667 dpm/100 cm² on high spots and averaged in excess of 20,000 dpm/100 cm² over the entire area of the sheet. A round die cast metal plate, possibly an electrical motor housing, was noted with a greasy buildup on one surface. The metal plate emitted very little alpha, but the greasy buildup area registered an average of 0.7 mR/hr. A large 4-foot diameter exhaust fan was surveyed which had a small section of corrugated steel attached. The fan housing passed release criteria, but the attached fragment of corrugated steel averaged about 20,000 dpm/100 cm².

The licensee had released a flat bed trailer that contained approximately 22 tons of ferrous structural components from the mill. This trailer was parked outside the restricted area and was prepared for shipment to a scrap metal processor. The inspectors surveyed this material on December 1, 1993. The RCC was not available at the time of the survey. A 4-foot length of I-beam was found that had an average of 16.667 dpm/100 cm² alpha, with a high area of 25,000 dpm/100 cm². A separate I-beam was noted that averaged 12,500 dpm/100 cm², alpha. A beta-gamma reading of 6 mR/hr was obtained on a greasy patch on a third I-beam. Due to the safety problems in walking over the scrap material contained in the trailer, less than 10 percent of the load was surveyed.

The release of materials, such as the exhaust fan and scrap iron, which exceeded release criteria as noted above was identified as an apparent violation of License Condition No. 18 (40-3453/9302-01).

During the initial inspection period, the inspectors observed the RCC as he demonstrated a routine release of scrap material contained on one of the decontamination pads. The RCC would first survey a length of steel using a beta-gamma detector held at approximately one centimeter from the surface of the object. If no readings exceeded the beta-gamma release criteria the RCC would then perform an alpha survey. The RCC stated, when asked if he took routine swipes, that he took swipes on items that visually contained greasy, dirty, or discolored surfaces. The RCC also stated that he took swipes when an item approached the release criteria for fixed radiation.

The inspectors noted that the RCC surveyed three sides of each I-beam and, if the I-beam was elevated because it was across another I-beam, the bottom was also surveyed. If the steel was placed on the pad such that an I-beam lay flat on the concrete, only three sides of the beam were monitored. There appeared to be no procedure for flipping an I-beam over while the RCC was surveying scrap steel. This could allow for contaminated surfaces to be missed.

The RCC would then proceed to mark in red spray paint any item that failed visual, beta-gamma, or alpha survey criteria. Normally a red X was sprayed on these items that failed the criteria, but to a lesser extent red lines or other red marks were used. The RCC stated that early in the release program that a red line was spray painted on scrap steel to separate contaminated sections from those sections that passed release criteria. The contaminated area on the scrap steel would be removed and retained, while the radiologically acceptable piece would be released for unrestricted use. This procedure was short lived, and later only items that passed in their entirety were released.

The RCC would take notes of his findings during the radiological survey of the scrap material. The inspectors observed that only one release form was completed for each lot of scrap contained on a single decontamination pad while each item for resale such as a ball mill had an individual form. Each form contained only limited information on the results of the survey.

Basically only four results were maintained: total beta-gamma, total alpha, removable beta-gamma, and removable alpha. These results would apply to a decontamination pad that contained several tons of scrap steel. The form appears to be inadequate to properly document the large quantity of steel removed from the restricted area. The inspectors also noted that items were often released from the site before the wipes were counted for removable contamination. The RCC stated this was allowed because removable contamination had not been a problem.

The inspectors also identified additional deficiencies in the materials release program in effect at the site. These deficiencies were as follows:

- The gate through which materials were removed from the site was not locked during workdays, and Atlas personnel were not routinely present to monitor the removal of items from the site. There was therefore no control of items removed from the facility. Removal of items was completely left to the discretion of contractor personnel who were performing the mill demolition for the salvage value of the scrap material.
- Items removed from the site were often dragged from the decontamination pad out through the gate into the unrestricted area. The area between the pad and the gate was often muddy due to runoff of washdown water from the decontamination pad. The soils in the area also have a high potential for contamination due to ore stockpiling and mill process activities which occurred here. There was therefore a significant potential for recontamination of items removed from the site due to contact with the wet soil.
- The mechanical shear which was used to dismantle the mill, including the yellowcake portions of the circuit, was often moved into the unrestricted area to cut up pieces of metal which had previously been removed from the restricted area. The treads of the shear were not radiologically surveyed to assure release limits were met, and the cutting surfaces were not surveyed after being used on potentially contaminated metal.

During the November 30 to December 1, 1993, inspection period, the inspectors discussed with NRC management and the licensee the concerns they had with the release program and the finding of contaminated items released from the restricted area. Previous to the inspection, items released by Atlas were located in the states of Washington, Utah, and Colorado which exceeded release criteria. Subsequent to this finding the NRC issued a Confirmatory Action Letter which confirmed Atlas's commitment dated November 18, 1993, to suspend the release of equipment and materials for unrestricted use from the Atlas Uranium Mill until corrective actions were approved by the NRC. During the November 30 to December 1, 1993, inspection, Atlas workers started the job of returning scrap material back into the restricted area. The February 10, 1994, site visit confirmed that all scrap material, including the

scrap contained on the flat bed trailer, had been moved back into the restricted area.

Atlas contracted the services of a certified health physicist to revise the equipment and materials release program. Substantial changes were made to the release program and the corresponding procedure was submitted to the NRC for comment. The NRC reviewed and approved the procedure by letter dated January 26, 1994, and conducted a site visit on February 10, 1994, to evaluate implementation of the approved procedure.

The inspector observed the RCC and two technicians surveying scrap iron and steel in accordance with the revised procedure. Two laborers were assigned the task of moving scrap around to assure that all exposed surfaces were radiologically surveyed. One technician recorded the data as the two surveyors presented their findings. Alpha and beta-gamma surveys were noted to be conducted on all exposed surfaces. The RCC was observed to reject scrap for being too greasy, having enclosed surfaces, too small for the probe surface, or contaminated above release criteria. The inspector observed the team applying blue paint to any scrap that was not releasable. White paint was applied to any scrap surface that was surveyed to assure that all sides of the releasable item were surveyed. The team appeared to follow the procedure properly, and all members appeared to be sufficiently trained to conduct surveys and record the information properly.

The inspector observed the counting of wipes in the laboratory. A review was made of the calibration of the portable and stationary detection equipment. The RCC also demonstrated how background values were determined and what consistency checks were performed. During the inspection, the gas proportional counter failed to return a wipe paper. The instrument was dismantled, the wipe paper removed, and the instrument reassembled. The RCC ran a blank and performed an additional consistency check to verify that the instrument was operating within normal parameters. The remainder of the wipes were counted without incident. One swipe was noted to fail the removable contamination limit. The scrap section was immediately located and the item removed. The inspector determined that all activities were conducted in accordance with the procedure and good laboratory practice.

The inspector reviewed the training records of those individuals that received training in the revised release procedure on January 27 and 28, 1994. There were seven individuals present for the training, including the RCC and the two technicians assisting the RCC. The inspector also observed that some of the scrap workers as well as other Atlas personnel took the training. There was a test at the end of training which reviewed the release procedure. All personnel were noted to have passed the test.

During the April 13-14, 1994, inspection the inspectors reviewed the release program to determine if the licensee was continuing to follow the revised procedure. Observations of the radiation technicians releasing scrap and reviews of the release documents showed that the program was functioning

adequately. The inspectors during this inspection visit had no concerns with the revised release program.

4.6 Conclusion

During the November 30 to December 2, 1993, inspection period, the inspectors concluded that serious deficiencies existed in the licensee's program for release of equipment and materials from the restricted area. The licensee's survey procedure was inadequate, the RCC was overwhelmed and needed addition personnel to assist with materials releases, and generally, site personnel were poorly trained in release procedures.

Equipment and materials were improperly released from the restricted area. This was identified as an apparent violation of License Condition 18 (40-3453/9302-01).

The licensee made the necessary changes in the release program with the help of a health physics consultant between the November 30, 1993, and February 10, 1994, inspections. Subsequently, the February 10 and April 13-14, 1994, inspections found that the licensee's program appeared to be in full compliance with release criteria.

5 RADIOACTIVE WASTE MANAGEMENT (88035)

5.1 Discussion

The inspectors made observations in the tailings disposal area and surrounding areas, including Moab Wash. The licensee conducts tailings seepage recovery from an array of collection wells installed in the tailings embankment. The licensee reported that each well was equipped with a submersible pump, and water was evacuated every 15 minutes using automatic timers. Water from precipitation events and percolation from the tailings collects atop the impoundment. During nonfreezing weather, the recovered water from the collection wells and impoundment was sprayed into the air to enhance evaporation.

Recent wet weather had increased the volume of water on top of the tailings impoundment. This action has resaturated the tailings material. The inspectors observed where a large area of recently placed interim cover had sunk into the tailings material. The licensee was attempting to meet the interim cover date of April 30, 1994, as stipulated by License Condition No. 55.A. Atlas personnel were very skeptical, due to recent wet weather, that they would be able to meet this date. The inspectors suggested that Atlas submit to the NRC a license amendment request as soon as possible to revise the completion date.

5.2 Conclusion

The licensee's waste management program appeared to be in accordance with license requirements although it is doubtful that interim cover could be placed by April 30, 1994, as required by the license.

6 ENVIRONMENTAL PROTECTION (88045)

6.1 Discussion

The licensee maintained five environmental monitoring stations. Continuous air particulate monitors, radon samplers, and environmental thermoluminescent dosimeters were located at each monitoring site. Air particulate filters were changed weekly and composited quarterly for analysis. Radon sampling was conducted by using an alpha track system with exchanges monthly.

Soil and vegetation samples were collected on a set schedule and analyzed for specific radionuclides to determine trends. Soils were collected at five locations annually, while vegetation was collected at two locations, a background station, and a nearby alfalfa field. Surface waters were collected quarterly from the Colorado River at two locations above and below the mill facility. Four ground-water sampling wells within the vicinity of the tailings pile were sampled quarterly and analyzed off site by a contract laboratory.

The licensee sends all of their environmental samples which require radiometric analyses to a contract laboratory. As of the time of this inspection, the licensee had sent no quality control samples to this laboratory. The inspectors reviewed the contract laboratory's reports. Many instances were noted where calculated error ranges exceeded the values measured. This led the inspectors to review the values used as the analytical detection limits.

The inspectors noted that License Condition No. 49.C requires that the licensee, or their contractor, utilize analytical procedures sensitive enough to meet the lower limits of detection (LLDs) given in Section 5 of Regulatory Guide 4.14, "Radiological Effluent and Environmental Monitoring at Uranium Mills," Revision 1, dated April 1980. Section 5 gives LLDs for Ra-226, Th-230, U-nat, and Pb-210. When actual concentrations exceed the given LLDs, Section 5 states that the licensee need not meet these LLDs if the standard deviation estimated for the random error of the analysis is no greater than 10 percent of the measured value.

The inspectors found that the laboratory was using LLDs and standard deviation criteria for Ra-226, Th-230, and Pb-210 which differed with those given in Regulatory Guide 4.14. This resulted in a reduced analytical sensitivity. Therefore, even though many of the reported values were above the LLDs given in Regulatory Guide 4.14, the laboratory had assigned error ranges which exceeded the reported values. This is equivalent to reporting that they could

not distinguish the measured value from zero (i.e., below detectable levels) at a 95 percent confidence level.

Sensitive analytical procedures are necessary to track and trend the low levels of radioactive material released into the environment from the licensed facility. The LLD and standard deviation criteria given in Regulatory Guide 4.14 and incorporated as License Condition 49.C ensure that the required analytical sensitivity exists.

6.2 Conclusion

The failure to meet the criteria given in Section 5 of Regulatory Guide 4.14, Revision 1, was identified as violation of License Condition No. 49.C (40-3453/9302-02).

ENCLOSURE 3

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Inspection Report: 40-3453/95-01

License: SUA-917

Licensee: Atlas Corporation
370 17th Street, Suite 3150
Denver, Colorado 80202

Facility Name: The former Moab Uranium Mill

Inspection At: Moab, Utah

Inspection Conducted: February 9, 1995

Inspector: M. Linda McLean, Senior Health Physicist, Region IV
Fuel Cycle and Decommissioning Branch (FCDB)

Accompanied by: Charles L. Cain, Chief, FCDB

Approved:

Charles L. Cain
Charles L. Cain, Chief
Fuel Cycle and Decommissioning Branch

4/19/95
Date

Inspection Summary

Areas Inspected:

The inspection conducted on February 9, 1995, was a special, unannounced inspection of the licensee's radiation protection program including Operations Review and Radiation Protection. Specifically, the inspection consisted of a review of selective examinations of procedures, representative records, interviews of personnel, independent measurements, and observation of activities in progress related to the release of equipment and materials from the restricted area.

Results:

- The failure to conduct a quarterly audit of the release procedure was identified as an apparent violation (Section 2).
- The facility's equipment release procedures were determined to be effective (Section 2).

- The licensee's radiation protection program regarding equipment and material release was in compliance with the license and applicable portions of 10 CFR Part 20 (Section 3).

Summary of Inspection Findings

- Apparent Violation 40-3453/9501-01 was opened (Section 2).

Attachment:

- Personnel Contacted and Exit Meeting

DETAILS

1 PURPOSE/SITE STATUS

The inspection conducted on February 9, 1995, was a special, unannounced inspection of the licensee's radiation protection program as it related to the release of equipment and material from the licensee's restricted area. Specifically, the inspection consisted of examination of the licensee's Radiation Safety Procedures Manual, Section 4.4, "Release of Equipment from the Mill During Decommissioning"; representative records documenting the release surveys; interviews of personnel performing the surveys; and independent measurements of released equipment and material.

Atlas had three employees involved with site activities. These individuals included the Radiation Control Coordinator (RCC), the Contract Manager/RCC Assistant, and a part-time Assistant Radiation Technician. Also, a reclamation contracting company was on site with four employees involved with equipment reclamation activities. The reclamation company has purchased salvageable equipment from Atlas since mill dismantlement. In addition, employees of the company were assigned the task of moving heavy equipment around to assure that all exposed surfaces were monitored for radiation contamination.

2 OPERATIONS REVIEW (88020)

The inspector reviewed licensee operations to determine compliance with the licensee's Radiation Safety Procedures Manual and other applicable requirements specifically related to the release of material from the restricted area.

2.1 Discussion

The current licensee procedure for release of equipment from the licensee's site was reviewed during the inspection. Substantial changes were made to the release program and the corresponding procedure was submitted to the NRC for comment by letter dated December 22, 1993. The NRC reviewed and approved the procedure by letter dated January 26, 1994. The revised procedure was implemented after the licensee received NRC's approval.

Section 4.4, "Release of Equipment from the Mill During Decommissioning," of the licensee's Radiation Safety Procedures Manual described the procedures for releasing equipment or packages from the licensee's restricted area. The procedure referenced the use of NRC's "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of License for Byproduct or Source Materials," dated September 1984, as their release criteria.

The "Quality Assurance" procedure in Section 4.4 states that "a Radiation Protection Consultant is to conduct two radiation protection and compliance audits of the implementation of this procedure within the first 3 months of procedure implementation," and that "the reports of those audits will be made available to the NRC within 30 days of the receipt of the audit report by Atlas Minerals."

The inspector reviewed the first two audit reports required after the implementation of the revised release procedure. The audits were conducted on March 22, 1994, and May 3, 1994, respectively, and were submitted to NRC as required. The March 22, 1994, audit documented "four minor deficiencies" which were the following:

- Not all entries on the record keeping form had been completed, but the entries were corrected during the audit;
- A 2.5-foot gap was observed between the gate and the fence around the equipment transfer yard;
- No all equipment in the transfer yard, outside the restricted area of the mill, was marked as noncontaminated; and
- Not all releasable equipment was stored in the transfer yard, or stored for 10 days or less on the clean ore pads.

The May 3, 1994, audit documented "two minor deficiencies" which were the following:

- A few pieces of equipment in the transfer yard, outside the restricted area of the mill, were not marked as noncontaminated; and
- The reclamation contractor had not completed the "To (Consignee):" and "To (Shipper):" entries on two bills of lading.

The procedure also stated that subsequent audits would be conducted by the licensee or their designee quarterly for the next year that equipment is released off site. Furthermore, the procedure stated that thereafter the audits will be part of the annual ALARA audit.

The inspector determined that only one audit was conducted between May 1994 and January 1995, a period of nine months. The quarterly audit which was due sometime during the months of June through August had not been conducted. The failure to conduct the required audit of the release procedure was identified as an apparent violation of License Condition 23 (40-3453/9501-01). This condition requires that standard written procedures be established and maintained for all activities involving radioactive materials that are handled, processed, or stored.

The licensee stated that an audit had been conducted by the corporate Vice President of Environmental and Government Affairs in September 1994 but had not been documented. The last audit was conducted on January 31, 1995, by an outside consultant. The consultant provided NRC with a copy of the report by facsimile on February 10, 1995. The inspector reviewed the January 31, 1995, audit report and noted that two deficiencies were identified in the report. The deficiencies were that the September 1994 audit had not been documented and that one required audit had not been conducted.

2.2 Conclusion

The facility's equipment release procedure was determined to be of sufficient detail for the activities in progress.

The failure to conduct the first quarter audit of the release procedure was identified as an apparent violation (40-3453/9501-01).

3 RADIATION PROTECTION (83822)

The inspector reviewed the licensee's radiation protection program to determine compliance with their procedures for release of equipment and material from their restricted area.

3.1 Discussion

A major portion of the licensee's radiation safety program activities consisted of mill equipment and material release from the restricted area. The inspector reviewed survey records for material release from February 1994 through February 1995. These records also included the release of vehicles entering and exiting the restricted area. Most of the surveys were performed by the radiation technician; however, the RCC performed spot checks at least weekly on the released equipment. The records documented the results of surveys for both fixed and removable contamination. Four results were documented: total beta-gamma; total alpha; removable beta-gamma; and removable alpha. No problems were identified with the records.

The inspector reviewed the calibration records of the portable and stationary radiation detection equipment used for the release surveys. No problems were identified.

The inspector toured the former mill site area including the transfer storage yard where the licensee held released equipment and the decontamination ore pad area which is located in the restricted area. The decontamination ore pad area was where the licensee performed the preliminary radiation surveys of the equipment prior to release. The inspector observed that there was still a lot of scrap metal in piles around the former mill site. The RCC stated that the majority of the salvageable material had already been sold, and that the remaining material will be disposed of on site. However, the disposition of several asbestos covered autoclaves classified as mixed waste was undetermined.

Section 4.4, "Release of Equipment from the Mill During Decommissioning," of the licensee's Radiation Safety Procedures Manual required that releasable items were to be marked with fluorescent orange paint. White paint or another identifying mark was to be used on each side of an item that has been surveyed, and blue paint marked items that were surveyed and were above release criteria. The inspector observed many items marked with white and blue paint in the decontamination ore pad area. The licensee stated that the equipment and material above release criteria would be disposed of on site.

The inspector performed confirmatory fixed alpha and gamma surveys on equipment in the storage yard. All material located in the storage yard area had been marked with orange paint classifying the material as releasable. The equipment surveyed by the inspector met the release criteria specified in NRC's "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of License for Byproduct or Source Materials" dated September 1984. The gate through which materials were removed from the site was observed to be locked and properly posted.

The licensee stated that all contaminated materials that had been located at other sites had either been returned or decontaminated. The only exceptions were two ball mills that were being stored at a scrap yard in Spokane, Washington. Negotiations were continuing to have these materials decontaminated by the licensee.

3.2 Conclusion

The revised release program was functioning adequately. The licensee's radiation protection program regarding equipment and material release was in compliance with the license and applicable portions of 10 CFR Part 20.

ATTACHMENT

1 PERSONS CONTACTED

1.1 Licensee Personnel

*/**D. Edwards, Radiation Control Coordinator
C. Dixon, Contract Manager and Assistant Radiation Technician
J. Chacon, Radiation Technician
S. Hatch, Radiation Technician

1.2 NRC Personnel

P. Garcia, Project Manager
*D. Ward, Project Manager
**L. McLean, Senior Health Physicist

1.3 Accompanying Personnel

*W. Radcliffe, Headquarters
**C. Cain, Chief Fuel Cycle and Decommissioning Branch

*Denotes personnel present at the exit meeting on April 14, 1994.

**Denotes personnel present at the exit meeting on February 9, 1995.

2 EXIT MEETING

Exit meetings were conducted at the conclusion of the inspections on April 14, 1994, and on February 9, 1995. During these meetings, the inspectors reviewed the scope and findings of the inspections. The licensee did not identify as proprietary any information provided to or reviewed by the inspectors.

DOCUMENT SEQUENCES

Atlas Corporation, License SUA-917

License Condition 23:

"Standard written procedures shall be established and maintained for all activities involving radioactive materials that are handled, processed or stored. Written procedures shall be established for nonoperational (nonprocessing) activities to include in-plant and environmental monitoring, bioassay analyses, and instrument calibrations. Up-to-date copies of all written procedures shall be kept in the applicable work stations to which they apply."

Applicable Procedures:

Procedure 4.0, "Survey Locations, Frequencies, and Analyses," dated 12/7/88

"All potentially contaminated material that is removed from the Mill is surveyed for total beta gamma, total alpha, removable alpha, and removable beta gamma contamination prior to release from the restricted area boundary."

Procedure 5.0, "Survey Procedures," dated 4/12/85

Section 5.1, "Surface Contamination and Wipe Tests," provides guidance only on taking wipe samples. The section begins by stating, "Wipe an area of approximately 100 square centimeters with a piece of filter paper to collect removable contamination" and then proceeds to describe how to label and count it.

Section 5.4, "Release of Equipment from the Mill"

"All potentially contaminated equipment that leaves the restricted area of the mill is to be surveyed for alpha, beta and gamma contamination"

"The results of the radiation survey must be reported on the property pass form reproduced in Table 5, or the equivalent." Table 5 consists of a copy of the "Property Pass" form which provides blanks for recording the following:

- Item [to be released]
- Disposition of Material
- Approval of Radiation Technician
- Five Blanks for survey results including "Total Beta," "Total Gamma," "Total Alpha," "Removable Beta and Gamma," and "Removable Alpha."

The procedure is revised on 8/11/93 to include a new Table 5 which is a "Bill of Sale." This form is similar to the "Property Pass" but excludes the Radiation Technician approval blank and has modified blanks for recording survey results.

Undated Handwritten Procedure, "Release of Equipment from the Mill"

This procedure, obtained by OI, is undated but appears to have been prepared for the mill dismantlement work. It requires that "material being surveyed must be dry ... since water shields alpha contamination." Also, "the material being surveyed must be scattered out on the pad, it cannot be in a big pile, a person must be able to get to each peice [sic] of material." The procedure addresses marking of contaminated pieces, wipe surveys for alpha, direct surveys for alpha at a distance of 1 cm, and the counting of wipe samples.

The procedure also addresses moving clean, releasable material to the parking lot.

License Condition 18

Released 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 License for Byproduct or Source Materials," dated September, 1984."

The Guidelines specify that "radiation exposure rate limits ... should be used in decontamination and survey of surfaces or premises and equipment prior to abandonment or release for unrestricted use."

Limits set forth are

- 1,000 dpm alpha/100 cm² removable
- 5,000 dpm alpha/100 cm² averaged over not more than 1 m²
- 15,000 dpm alpha/100 cm² maximum

Declaration of [REDACTED]

[REDACTED] say and declare:

I worked for Foley Brothers Construction during construction of the Atlas mill from June 17, 1955 through September 10, 1956.

I was introduced by Foley Brothers Construction to key personnel at the Uranium Reduction Company, and was subsequently hired on [REDACTED]. I held positions as Fluorimetric Chemist, Assistant Analytical Chemist, Analytical Chemist, Chief Chemist, and Chief Metallurgist/Radiation Safety Officer.

Presently, I am and have been since 1981, the [REDACTED] for Atlas Corporation's uranium mill site in Moab, Utah. It is my responsibility to administer the radiation control and environmental programs and to ensure compliance with the United States Nuclear Regulatory Commission's regulations and guidelines, company expectations and guidelines, and state and local guidelines and regulations. I work closely with, and report to, the Vice President of Environmental and Governmental Affairs. I offer functional advice to maintain exposures as low as reasonably achievable, and ensure that radiation safety is carried out properly by employees and/or persons having reason to be at Atlas' mill site.

The facts set forth in this declaration are within my personal knowledge, except as to those facts set forth on information and belief, and if called as a witness, I could and would testify competently to the following:

Mssrs. Dana Ward and Pete Garcia, of the United States Nuclear Regulatory Commission, made an unannounced inspection at the Atlas uranium mill site on November 30 through December 02, 1993.

Mr. Ward spent one afternoon monitoring a pad that was full of scrap metal previously monitored by me, and achieved results identical to those recorded or noted by me.

It was also determined that some contaminated material was removed from the mill site to an unrestricted area. This contaminated material was either specifically marked as contaminated, or was not yet monitored, but in either event it was taken from the mill site without Atlas' knowledge.

As a representative of Atlas, I acted responsibly when I learned that contaminated material was found in unrestricted areas. I coordinated return of the items in question to the mill site restricted area as soon as practicable, and/or decontaminated the items in question at off-site locations.

Exceptions to the aforementioned statement, are the two *ball mills* which were monitored and released. These two *ball mills* were monitored in accordance with current United States Nuclear Regulatory Commission guidelines and regulations. The *ball mills* were returned to the mill site. Decontamination and re-release has occurred for the shell of the first *ball mill*. Decontamination for liners of the first *ball mill*, and the entire second *ball mill* is in process. The *ball mills* were not deliberately released knowing they were contaminated.

Additionally, the *roll crusher* was monitored and released, yet another party apparently found a high spot. I went to the location of the *roll crusher*, and personally monitored the item. Monitoring results for the *roll crusher* were the same as when it was initially released: over the standard for the average, but not for the maximum. Regardless, the *roll crusher* was re-cleaned and re-released.

The *conveyor* had not yet been monitored and released, and was taken without Atlas' knowledge. I went to the location of the *conveyor*, and personally monitored the unit. The *conveyor* was cleaned at its present location. The *conveyor* ultimately met United States Nuclear Regulatory Commission's standards, and was released. The contaminated soil, dust, dirt and grease was placed in buckets and brought back to the mill site for disposal in the tailings pond.

I deeply regret that any material which was found to be contaminated, left the mill site. I have never, nor would I ever, let any material leave the site with knowledge that it was contaminated and did not meet United States Nuclear Regulatory Commission's standards, guidelines and/or regulations.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this 16 day of May, 1995, at Moab, Utah.



Atlas Minerals Division of
Atlas Corporation

AMERICAN

RECLAMATION & DISMANTLING

P.O. BOX 1448

STATELINE, NEVADA 89449

(702) 888-1488

Declaration of [REDACTED]

[REDACTED] say and declare:

I am [REDACTED] of American Reclamation and Dismantling, Inc., a Nevada Corporation. The Company was formed during May 1982. The Company is located at 448 Quaking Aspen, Stateline, NV.

My relationship with Atlas Corporation commenced August 1992. My present activities involve the reclamation, decommissioning, demolition, and disposal of the mill site.

The facts set forth in this declaration are within my personal knowledge, except as to those facts set forth on information and belief, and if called as a witness, I could and would testify competently to the following:

Mr. [REDACTED] is the [REDACTED] and [REDACTED]. He is our primary contact at the mill site with radiation safety materials.

[REDACTED] never cut corners, never did anything below standard, and to the best of my knowledge always met, and was a stickler for meeting or surpassing all requirements of the United States Nuclear Regulatory Commission regulations and guidelines, and any state or local guidelines.

Anytime we were in doubt, unsure of proper handling, or had questions, [REDACTED] was readily available to clarify and/or specify exactly what regulatory procedure was required, and how to accomplish the task at hand.

[REDACTED] was always available in an over-sight capacity, and supervised as necessary and appropriate.

I was not fully aware of the United States Nuclear Regulatory Commission's regulations and guidelines, and did not always recognize or appreciate [redacted] persistence and diligence in following the rules. I have since come to an appreciation for his concerns, and respect his integrity.

The news media incident which occurred was the direct result of a disgruntled subcontractor previously in my employ. The subcontractor in question is [redacted] Inc. [redacted] assisted with the decommissioning of the mill site. [redacted] expressed to me personally, that by being forced to follow and adhere to the United States Nuclear Regulatory Commission regulations and guidelines as directed, mandated, and enforced by [redacted] at the mill site, they were unable to perform their specified and required responsibilities in an economical fashion.

[redacted] stated to me that he felt vengeful towards [redacted] also stated to me on several occasions that something big was going to happen, but would not specify what his intentions were on this matter. Shortly thereafter, [redacted] appeared on local Salt Lake television making allegations which were inaccurate. A week or two prior to [redacted] television appearance, I discharged him and [redacted]

After contacting the local television producer and questioning him relative to substantiating their information and/or the competency of their source [redacted] it was stated by the producer that they were unable to substantiate information previously broadcasted. An insignificant and short statement of correction was made a day or so later by the television station.

Any errors in judgment or handling which may have occurred were not the direct result of [redacted]

I declare under penalty of perjury that the foregoing is true and correct.

Executed this 14th day of [redacted] 1995, at Stirling, Nevada.

American Reclamation and
Dismantling, Inc.

PACKAGE DIVIDER