

NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555

NOV 0 6 1889

Atlas Corporation ATTN: Richard E. Blubaugh Regulatory Affairs Manager 370 17th Street, Suite 3150 Denver, CO 80202-5631

REFUND OF APPLICATION FEE

1. BACKGROUND:

	Check Received	October 11, 1989
	Application Dated _	September 11, 1989
	Check Number	20515
	Check Amount	\$150
2.	REFUND:	
	Amount	\$150

This efund is now being processed by the Financial Operations Branch and will be sent as soon as possible.

3. REASON FOR REFUND:

No fee required for application dated September 11, 1985 to amend License SUA-917 to change the mailing address.

NOTE: THE ENCLOSED 10 CFR 170 CONTAINS THE COMMISSION'S CURRENT SCHEDULE OF MATERIALS LICENSE FEES. IF YOU HAVE ANY QUESTIONS CONCERNING THE FEES TO BE SUBMITTED WITH FUTURE APPLICATIONS, PLEASE CONTACT US AT 301-492-4650.

1h h 4/3/89

Maurice Messier
License Fee and Debt Collection Branch
Division of Accounting and Finance
Office of the Controller

Enclosure: 10 CFR 170

cc: URFO

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Atlas Minerals Division of Atlas Corporation

743 Horizon Court Suite 202 Grand Junction, Colorado 81506 Telephone: (303) 243-5600 ACTURN CRIGINAL TO PUR HQ.

CERTIFIED P126 713 432

September 11, 1989

Mr. Ramon E. Hall, Director Uranium Recovery Field Office Region IV U.S. Nuclear Regulatory Commission P.O. Box 25325 Denver, Colorado 80225



Re: Source Material License SUA-917, Docket No 40-3453, Amendment Request for Change of Address

Dear Mr. Hall:

Atlas Minerals Division hereby requests that Source Material License SUA-917, License Condition No. 2 be amended to reflect our new address effective September 15, 1989.

Enclosed with this request is our check in the amount of \$150.00.

If you have any questions or if I can be of further assistance, please do not hesitate to contact me.

Sincerely,

Richard E. Blubaugh

Regulatory Affairs Manager

Piland 8. Statange

REB:bjg

cc: R. T. Exby

M. S. Davis

D. L. Edwards

DESIGNATED ORIGINAL

Certified By Mary e. Hord 8910250223 4.11 150 150 150 150 10/03/05 10/03/05

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NUCLEAR REGULATORY COMMISSION

REGION IV

URANIUM RECOVERY FIELD OFFICE BOX 25325 DENVER, COLORADO 80225

DIS

SEP 28 1989

URFO: GRK Docket No. 40-3453 SUA-917, Amendment No. 9 04003453950E

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Atlas Corporation 370 17th Street, Suite 3150 Denver, Colorado 80202-5631

Gentlemen:

We are in receipt of your September 11, 1989 amendment request concerning your address change. Accordingly, your license will be modified to reflect your current address.

Therefore, pursuant to Title 10, Code of Federal Regulations, Part 40, Source Material License SUA-917 is hereby amended by revising License Condition No. 2 to read as follows:

 370 17th Street, Suite 3150 Denver, Colorado 80202-5631

All other conditions of this license shall remain the same. The effect of this licensing action is to modify your mailing address. The license is being reissued to incorporate the revisions specified above.

The issuance of this amendment was discussed via telephone conversation between your Mr. Blubaugh and Mr. Konwinski of my staff on September 27, 1989.

Sincerely,

Ramon E. Hall Director

Enclosure: Source Material License SUA-914

Case Closed: 04003453950E

大概的最后,我们就会没有一个人的人的人的人的人的人的人的人的人的人的人的人的人的人,但是这一个人的人的人的人的人的人的人的人的人的人的人的人的人的人的人的人的人的

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MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93 – 438), and Title 10, Code of Federal Regulations. Chapter I, Parts 30, 31, 32, 33, 34, 35, 40 and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer by product, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee

. Atlas Corporation

3. License number

SUA-917, Amendment No. 9

370 17th Street, Suite 3150 Denver, Colorado 80202-5631 4. Expiration date

February 28, 1993

 Docket or Reference No.

40-3453

Byproduct, source, and/or special nuclear material Chemical and/or physical form

 Maximum amount that licensee may possess at any one time under this license

Natural Uranium

Any

Unlimited

- Authorized place of use: The licensee's uranium milling facility located at Moab, Utah.
- 10. The licensee is hereby authorized to possess byproduct material in the form of uranium waste tailings and other uranium byproduct waste generated by the licensee's milling operations authorized by this license.
- 11. For use in accordance with statements, representations and conditions contained in Sections 4.2.4, 5 and 7 (except 5.5.10 and 5.5.11) and Appendices 5.3, 5.5.6 and 6.0 of the licensee's renewal application dated May 31, 1984 and submittals dated December 17, 1984, January 18 and June 5, 1985, December 4, 1986, and January 26, 1988.

Whenever the word "will" is used in the above referenced sections it shall denote a requirement.

- 12. The mill production per calendar year shall not exceed 850 MT (1,870,000 pounds) of barreled U_3O_8 .
- 13. Any changes in the mill circuit as described in Figures 3.1-2 and 3.1-3 of the licensee's renewal application, shall require approval of the USNRC, Uranium Recovery Field Office, in the form of a license amendment.
- 14. The licensee is hereby exempted from the requirements of Section 20.203(e)(2) of 10 CFR 20 for areas within the mill, provided that all entrances to the mill are conspicuously posted in accordance with Section 20.203(e)(2) and with the words, "Any area within this mill may contain radioactive material."

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NRC Fore	m 374A U.S. NUCLEAR REGULATORY COMMISSIO	N PAGE 2 OF 13 PAGES
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15.	The results of sampling, analyses, surveys a calibration of equipment; reports on audits training courses required by this license; investigations, and corrective actions, shall specified in USNRC regulations, all such door period of at least five (5) years.	and inspections; all meetings and and any subsequent reviews, Il be documented. Unless otherwise
16.	The licensee shall maintain effluent control	systems as specified in Section 3.3

- A. Operations shall be immediately suspended in the affected area of the mill if any of the emission control equipment for the yellowcake drying or packaging area is not operating within specifications for design performance.
- B. The licensee shall, during all periods of yellowcake drying operations, assure that the scrubber is operating within the manufacturer's recommended ranges for water flow and air pressure differential necessary to achieve design performance. This shall be accomplished by either (1) performing and documenting checks of water flow and air pressure differential hourly during operation or (2) installing instrumentation which will signal an audible alarm if either water flow or air pressure differential fall below the manufacturer's recommended levels. If an audible alarm is used, its operation shall be checked and documented daily.
- C. Air pressure differential gauges for emission control equipment other than the wet scrubber shall be read and the readings documented once per shift during operations.
- D. Any changes in the effluent control systems, as described above, shall require approval by the USNRC, Uranium Recovery Field Office, in the form of a license amendment.

17. The licensee shall implement a compliance monitoring program containing the following:

- A. Sample wells AMM-1, AMM-2 and AMM-3 on a quarterly frequency for chloride, nitrate, sodium, sulfate, pH, TDS and water level, and on a semiannual frequency for chromium, gross alpha, lead, molybdenum, nickel, radium-226 and 228, selenium, silver, uranium and vanadium. Additionally, the upper completion of well ATP-2 shall be sampled on a quarterly frequency for chloride, nitrate, sodium, sulfate, pH, TDS and water level.
- B. Comply with the following ground-water protection standards at point of compliance wells AMM-2 and AMM-3, with background being recognized as well AMM-1.

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		chromium = 0.08 mg/l, gross alpha = 33 pCi/l, molybdenum = 0.06 mg/l, radium- 226 and 228 = 5 pCi/l, selenium = 0.01 0.04 mg/l and uranium = 4.0 pCi/l.	0.05 mg/1,	mg/l, ni vanadiu	ckel m =	
	c.	Construct and operate the enhanced evaporation system as we the dewatering pilot project as described in Sections 3.0 a June 14, 1989 submittal. Should the dewatering project be described in Section 5.0 of the above cited submittal, an a corrective action program proposal shall be submitted to the of a license amendment.	and 4.1 ineffo addition	O of the ective a onal	s	
		The corrective action program shall be fully operational as practicable, but in no event later than July 1, 1990. Additionable shall on a semiannual frequency, submit a ground-wreport as well as submit a corrective action program review of each year, that describes the progress towards attaining protection standards.	itiona water r v by De	lly, the monitori ecember	ng 31,	
18.	with Faci	lease of equipment or packages from the restricted area shall th the attachment to SUA-917 entitled, "Guidelines for Deconta cilities and Equipment Prior to Release for Unrestricted Use of censes for Byproduct or Source Materials" dated September, 198	minati or Term	ion of	nce of	
19.	of o	e licensee shall have in operation, within ninety (90) days properations, instrumentation to detect ruptures of the tailing lution return lines when these lines are being utilized. Indissible rupture of these lines shall result in activation of an cupied area of the mill. The instrumentation shall be tested sting documented, to ensure proper operation.	s disc cation alarm	charge and of a in an	e	
20.	emba Offi tail radi coul	e licensee shall conduct and document at least one inspection bankment per day and shall immediately notify the USNRC, Uranifice, by telephone and telegraph, of any failure to the tailing illings discharge and solution return system which results in a dioactive material and/or of any unusual conditions which if nuld lead to such a failure. This requirement is in addition to quirements of 10 CFR 20.	um Rec gs dam relea ot cor	overy Finance of rected	ield	
21.	Α.	The licensee shall decommission the Meab Mill facilities in policy and procedures described in submittals dated November March 29, and May 13, 1988.			ith nd	
	В.	The licensee shall submit phase completion criteria at leas to commencement of decommissioning activities.	t 60 d	ays pric	or	
	c.	The licensee shall submit decontamination and decommissioni 60 days of completion of the decontamination and decommissi			thin ies.	

- 19. The licensee shall have in operation, within ninety (90) days prior to resumption of operations, instrumentation to detect ruptures of the tailings discharge and solution return lines when these lines are being utilized. Indications of a possible rupture of these lines shall result in activation of an alarm in an occupied area of the mill. The instrumentation shall be tested daily, and the testing documented, to ensure proper operation.
- 20. The licensee shall conduct and document at least one inspection of the tailings embankment per day and shall immediately notify the USNRC, Uranium Recovery Field Office, by telephone and telegraph, of any failure to the tailings dam or tailings discharge and solution return system which results in a release of radioactive material and/or of any unusual conditions which if not corrected could lead to such a failure. This requirement is in addition to the reporting requirements of 10 CFR 20.
- 21. The licensee shall decommission the Maab Mill facilities in accordance with A. policy and procedures described in submittals dated November 27, 1987, and March 29, and May 13, 1988.
 - The licensee shall submit phase completion criteria at least 60 days prior B. to commencement of decommissioning activities.
 - The licensee shall submit decontamination and decommissioning reports within C. 60 days of completion of the decontamination and decommissioning activities.

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D. The reports required by this condition shall include, as a minimum, the following information:

- Employee exposure records including internal exposure time weighted calculations.
- (2) Bioassay results.

- (3) Inspection log entries and inspections.
- (4) Training program activities, including safety meetings.
- (5) Radiological survey and sampling data.
- (6) Cross section drawings of all disposal areas and the proposed interim cover.
- 22. Occupational exposure calculations shall be performed and documented within one (1) week of the end of each regulatory compliance period as specified in 10 CFR 20.103(a)(2) and 10 CFR 20.103(b)(2). Routine samples taken in airborne ore dust and yellowcake areas shall be analyzed in a timely manner to allow exposure calculations to be performed in accordance with this condition. Non-routine samples taken in ore dust and yellowcake areas shall be analyzed and the results reviewed by the Radiation Control Coordinator (RCC) within two (2) working days after sample collection.
- 23. Standard written procedures shall be established and maintained for all operational (processing) activities involving radioactive materials that are handled, processed or stored. Standard operating procedures for operational activities shall enumerate pertinent radiation safety practices to be followed Additionally, written procedures shall be established for nonoperational (non processing) activities to include in-plant and environmental monitoring, bioassay analyses, and instrument calibrations. Special written procedures shall be established for use when the plant is in an extended standby or shutdown condition. Up-to-date copies of all written procedures shall be kept in the applicable mill areas.

All written procedures, including special shutdown procedures, shall be reviewed and approved in writing by the RCC before implementation and whenever a change in procedure is proposed to ensure that proper radiation protection principles are being applied. The RCC shall perform a documented review of all existing procedures at least annually. At least 15 days prior to implementation of special shutdown procedures Atlas shall notify the USNRC, Uranium Recovery Field Office.

24. The personnel contamination surveys conducted, in accordance with Section 5.5.5.2 of the application, shall be documented and maintained. In addition, the

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		see (RCC or qualified al contamination at least			
25.	cover radio alter	icensee shall use a Radied by an existing proceductive materials exist. hate, qualified by way of at least describe the f	dure where the po The RWP shall I of specialized re	tential for signifi be approved by the R	cant exposure to CC or an
	Α.	The scope of work to be	performed and th	e potential radiolo	gical hazards.
		Any precautions necessar materials.	ry to minimize wo	rker exposure to ra	dioactive
		The radiological monitor following completion of			
26.	the 1	thstanding the represent icensee shall develop an actors receive instructi R 19, prior to entering	nd implement prod on and training	edures to ensure th in accordance with	at visitors and
27.	a cond of any graded locate	disting on-site catchment dition and with enough re- spillage of chemicals darea. Any storage tan ed within the graded are capable of containing a	remaining availab from hazardous o aks containing ha a shall be surro	le capacity to assu hemical storage tan zardous chemicals w	re the collection ks within the hich are not containment
28.	applic	hstanding the represent ation, the licensee sha rooms, change rooms, sh	11 conduct weekl	y alpha contamination	nsee's on surveys of e in use.
29.	Section to the	of the report document in 5.1.4 of the renewal USNRC, Uranium Recover tion of the audit repor	application date y Field Office,	d May 31, 1984, sha	dance to 11 be submitted 0 days of
30.	specif	ition to the tailings ended in Section 4.2.4 of the licensee shall comp	the licensee's	renewal application	on program dated May 31,
	i i	otwithstanding any state or the annual technical nspectors are trained to bnormality.	evaluation repo	rt shall ensure that	all field

- The licensee shall use a Radiation Work Permit (RWP) for all nonroutine work not 25. covered by an existing procedure where the potential for significant exposure to radioactive materials exist. The RWP shall be approved by the RCC or an alternate, qualified by way of specialized radiation protection training, and shall at least describe the following:
 - A. The scope of work to be performed and the potential radiological hazards.
 - B. Any precautions necessary to minimize worker exposure to radioactive materials.
 - C. The radiological monitoring and sampling necessary prior to, during, and following completion of the work in order to assess any potential exposures.
- 26. Notwithstanding the representations in Appendix 5.3 to the renewal application. the licensee shall develop and implement procedures to ensure that visitors and contractors receive instruction and training in accordance with Section 19.12 of 10 CFR 19, prior to entering any restricted area.

- The existing on-site catchment basin west of the S-X units shall be maintained in 27. a condition and with enough remaining available capacity to assure the collection of any spillage of chemicals from hazardous chemical storage tanks within the graded area. Any storage tanks containing hazardous chemicals which are not located within the graded area shall be surrounded by individual containment dikes capable of containing all leakage.
- 28. Notwithstanding the representations in Section 5.5.5 of the licensee's application, the licensee shall conduct weekly alpha contamination surveys of lunch rooms, change rooms, shower rooms and offices when they are in use.
- 29. A copy of the report documenting the annual ALARA audit in accordance to Section 5.1.4 of the renewal application dated May 31, 1984, shall be submitted to the USNRC, Uranium Recovery Field Office, for review within 30 days of completion of the audit report.
- 30. In addition to the tailings embankment surveillance and inspection program specified in Section 4.2.4 of the licensee's renewal application dated May 31, 1984, the licensee shall comply with the following:
 - A. Notwithstanding any statements to the contrary, the professional responsible for the annual technical evaluation report shall ensure that all field inspectors are trained to recognize and assess signs of possible distress or abnormality.

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- B. All routine inspection reports shall be dated and maintained on file at the mill site for use in developing the annual report.
- C. The results of ground-water sampling and piezometer and pond level measurements shall be maintained in graphical form and on file at the mill site for use in developing the annual report.
- D. The annual technical evaluation report shall include an assessment of the hydraulic and hydrologic capacities, water quality and structural stability of the tailings impoundment.
- E. A copy of each annual technical evaluation report shall be submitted to the USNRC, Uranium Recovery Field Office, within one (1) month of its completion.
- 31. In addition to the requirements in Section 5.2 of the renewal application, the Regulatory Affairs Manager (RAM) and Radiation Control Coordinator (RCC) shall have the minimum education, training, and experience as detailed in Section 2.4.1 of Regulatory Guide 8.31 dated May 1983.
- 32. Radiation survey instruments shall be calibrated at least semiannually or at the manufacturer's suggested interval, and after each repair, whichever is sooner. All radiation survey instruments shall be checked for proper operation using a radiation check source prior to each day's use. Portable air sampling equipment shall be calibrated after repair and at least quarterly or at the manufacturer's suggested interval, whichever is sooner. Flow rates on portable samplers shall be checked and documented prior to each day's use. Fixed continuous air samplers shall be calibrated after repair and at least quarterly or at the manufacturer's suggested interval, whichever is sooner. Flow rates on fixed continuous air samplers shall be checked each time the sampling head is changed.
- 33. The licensee shall implement an interim tailings stabilization program as specified in the March 16, 1987 submittal. In addition, this program shall include written procedures which are of sufficient detail to describe inspection methodologies, management notifications and implementation of corrective actions to assure compliance to Criterion 8 of 10 CFR 40, Appendix A. As a minimum the licensee shall perform at least weekly a documented inspection to assure the effectiveness of the control methods used. Corrective actions taken shall be documented in response to inspection findings. Corrective actions shall be completed within 30 days unless a longer period is approved in writing by the USNRC.
- 34. The licensee is authorized to dispose of byproduct material contaminated solid wastes generated at the Moab Mill in the sump collection pond as described in the licensee's submittal dated February 29, 1984.

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35.	Notwithstanding representations made in Section the licensee shall not dispose of materials of spent resins, raffinate, vanadium waste residuling in the catchment basin described in Condition in the tailings pond, without the specific autorield Office, USNRC. If liquid sanitary waste pond, written authorization shall first be obted Pollution Control. A copy of the written authorield Uranium Recovery Field Office prior to the diswastes.	her than uranium mill tailings, es, liquids or residues contained No. 27, or liquid sanitary wastes horization of the Uranium Recovery s are discharged to the tailings ained from the Utah Bureau of Water orization shall be submitted to the
	The licensee shall not discharge any liquids o impoundment during nonoperational periods othe preventative maintenance, without prior written	r than needed to perform routine or
36.	Except as authorized by Condition 40 below, the changes in the tailings retention system without USNRC, Uranium Recovery Field Office, in the folicense.	ut specific prior approval of the
37.	Reclamation phase modifications to Moab Wash st Channel" option of the licensee's submittal data following modifications:	
	A. The pilot channel bottom shall be sloped a tailings pile (i.e., to the north).	at a 1% grade away from the
	B. Excavation material shall be used to back existing Moab Wash channel, with the fill pile. Any remaining excavation material son the south side of the pilot channel to	sloped away from the tailings shall be used to construct a berm
	In addition, operational phase modifications to accordance with the licensee's submittal dated	
38.	Mill tailings other than samples for research site without specific prior approval of the USA. The licensee shall maintain a permanent record provisions of this condition.	NRC, Uranium Recovery Field Office.
39.	Atlas shall, in accordance with submittals date develop methods and procedures prior to reclama	ed February 25 and June 29, 1987, ation, to ensure that:
	A. The entire area of contaminated soil south consisting of approximately 6.6 acres with	

- Except as authorized by Condition 40 below, the licensee shall not make any 36. changes in the tailings retention system without specific prior approval of the USNRC. Uranium Recovery Field Office, in the form of an amendment to this license.
- 37. Reclamation phase modifications to Moab Wash shall be as specified in the "Pilot Channel" option of the licensee's submittal dated October 13, 1983 with the following modifications:

- The pilot channel bottom shall be sloped at a 1% grade away from the tailings pile (i.e., to the north).
- Excavation material shall be used to backfill the entire length of the B. existing Moab Wash channel, with the fill sloped away from the tailings pile. Any remaining excavation material shall be used to construct a berm on the south side of the pilot channel to increase channel capacity.

- Mill tailings other than samples for research shall not be transferred from the 38. site without specific prior approval of the USNRC, Uranium Recovery Field Office. The licensee shall maintain a permanent record of all transfers made under the provisions of this condition.
- Atlas shall, in accordance with submittals dated February 25 and June 29, 1987, 39. develop methods and procedures prior to reclamation, to ensure that:
 - The entire area of contaminated soil southeast of the tailings impoundment, consisting of approximately 6.6 acres with an estimated volume of 25,000 cubic yards, is placed in the tailings pond and otherwise ensure that

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the entire area is decontaminated consistent with 10 CFR Part 40, Appendix A, Criterion 6.

- B. The entire area west of State Highway No. 279 identified as exceeding Ra-226 levels provided in 10 CFR Part 40, Appendix A, Criterion 6, shall be removed and placed in the tailings pond prior to final reclamation. By our letter dated February 25, 1987, background for the area west of State Highway No. 279 is 5.5 pCi/gm Ra-226.
- C. Records of all surveys and soil analyses of the section southeast of the tailings impoundment and west of State Highway No. 279 shall be maintained until the USNRC authorizes their disposal.
- 40. A. Construction of the tailings embankment to elevation 4076 feet shall be in accordance with Appendix B of the submittal "Report of Stability Analyses, 18-Foot Raise of Tailings Embankment to Elevation 4076 Feet, Moab, Utah, for Atlas Minerals" dated June 4, 1981, with the following exceptions:
 - Quality control tests shall be performed at the frequencies specified below (ASTM Standard Methods):
 - a) Compaction Test, D-698 At least five full tests prior to construction using a range of representative borrow soils followed by one-point tests at a frequency of at least one per 5,000 cubic yards of fill placed. The family of curves developed from the full compaction tests shall be used in evaluating one-point test data.

- b) Gradation test, D-422 At least one test per 5,000 cubic yards of fill placed.
- Nuclear moisture and density tests D-3017 and D-2922, respectively
 At least one test per 2,500 cubic yards of fill placed.
- d) Conventional moisture and density tests D-2216 and D-1556, respectively - Calibration of the nuclear tests specified in (c) above shall be performed using the tests specified in this section prior to beginning construction and at least once per 50,000 cubic yards of fill placed thereafter.
- e) Additional gradation testing shall be performed if the gradation of material appears to differ significantly from materials previously tested. If the gradation has changed significantly, a full compaction test shall be performed.

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	2) Embankment piezometers shall be rea	FIRST CONTROL LINE (2012) CONTROL CONT

- piezometers shall be read on a monthly frequency.
- 3) A report describing construction activities and containing the results of all quality control testing specified in (1) above shall be submitted to the USNRC, Uranium Recovery Field Office, within six months of completion of construction.
- B. The licensee shall maintain a minimum of six feet of freeboard and 150 feet of beach between the embankment crest and the ponded liquid.
- Drainage berms shall be installed over seepage areas on the embankment prior to construction of the lift. These berms shall be graded to protect against piping of the embankment material.
- The licensee shall reclaim the tailings disposal area in accordance with the 41. May 29, 1981 submittal "Report, Conceptual Design and Cost Estimate, Tailings Pile Reclamation, Moab, Utah, for Atlas Minerals." In addition, the licensee shall by July 1, 1988, provide for USNRC, Uranium Recovery Field Office, review and approval in the form of a license amendment, the following information:

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- An engineering design for the rock layer to be placed on pile outslopes. A. The rock layer shall be designed assuming unconcentrated sheet flow from a Probable Maximum Flood (PMF) event if the reclamation plan is modified to include placement of rock on the pile top or a concentration of sheet flow from a PMF if the pile top remains unrocked.
- A design for riprap placement based on rock durability. B. The information shall include the results of additional laboratory testing (specific gravity, absorption, and sodium sulfate soundness tests) and a proposal for selective screening and placement of rock and/or oversizing of the rock for more frequently saturated areas to assure protection of the reclaimed pile for a 1000-year period, to the extent practicable.
- An analysis of alt matives for modifying the existing plan to include slopes of 5H: 1V or flatter for all outslopes which receive runoff from the pile top. The information submitted shall include an evaluation of costs for various pile configurations.
- The licensee shall maintain an NRC-approved financial surety arrangement, 42. consistent with 10 CFR 40, Appendix A, Criteria 9 and 10, adequate to cover the estimated costs, if accomplished by a third party, for decommissioning and decontamination of the mill and mill site, for reclamation of any tailings or waste disposal areas, ground water restoration as warranted and the long-term surveillance fee. Within three (3) months of NRC approval of a revised reclamation/decommissioning plan, the licensee shall submit, for NRC review and

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approval, a proposed revision to the financial surety arrangement if estimated costs in the newly approved plan exceed the amount covered in the existing financial surety. The revised surety shall then be in effect within three (3) months of written NRC approval. Annual updates to the surety amount, required by 10 CFR 40, Appendix A, Criteria 9 and 10, shall be submitted to the NRC at least three (3) months prior to the anniversary of the effective date of the existing surety instrument. If the NRC has not approved a proposed revision to the surety coverage 30 days prior to the expiration date of the existing surety arrangement, the licensee shall extend the existing surety arrangement for one year.

Along with each proposed revision or annual update, the licensee shall submit supporting documentation showing a breakdown of the costs and the basis for the cost estimates with adjustments for inflation, maintenance of a minimum 15 percent contingency fee, changes in engineering plans, activities performed and any other conditions affecting estimated costs for site closure. The licensee shall also provide the NRC with all surety related correspondence submitted to the State, a copy of the State's surety review and the final approved surety arrangement, if applicable. The licensee shall also ensure that the surety, where authorized to be held by the State, expressly identifies the NRC portion of the surety and covers the decommissioning and decontamination of the mill and mill site, reclamation of the tailings and waste disposal areas, soil and water sample analyses to confirm decontamination, ground water restoration as warranted and the transfer of the long-term surveillance fee to the U.S. General Treasury. The basis for the cost estimate is the NRC approved reclamation/decommissioning plan or NRC approved revisions to the plan. attachment entitled, "Recommended Outline for Site Specific Reclamation and Stabilization Cost Estimates," outlines the minimum considerations used by the NRC in the review of site closure estimates. Reclamation/decommissioning plans and annual updates should follow this outline.

Atlas' currently approved surety instrument, Irrevocable Letter of Credit No. 119907, issued by the Bank of America, in favor of the NRC, shall be continuously maintained in an amount no less than \$6,200,000 for the purpose of complying with 10 CFR 40, Appendix A, Criteria 9 and 10, until a replacement is authorized by the NRC. For the purposes of the annual update of Atlas' cost estimate discussed in paragraph one above and required by Criterion 9, December 31 of each successive year, is designated as the effective date of the existing surety arrangement.

43. Prior to termination of this license, the licensee shall provide for transfer of title to byproduct material and land, including any interests therein (other than land owned by the United States or the State of Utah), which is used for the disposal of such byproduct material or is essential to ensure the long term stability of such disposal site to the United States or the State of Utah, at the State's option.

44. The licensee shall minimize dispersal of dust from the ore piles by water sprinkling or other dust suppression techniques, unless a documented weekly inspection indicates that the moisture content of the ore and/or weather conditions are controlling dusting. 45. Before engaging in any activity not previously assessed by the NRC, the license shall prepare and record an environmental evaluation of such activity. When the evaluation indicates that such activity may result in a significant adverse environmental impact that was not assessed, or that is greater than that asses in the final Environmental Statement (NUREG-0453), the licensee shall provide written evaluation of such activities and obtain prior approval of the USNRC, Uranium Recovery Field Office, for the activity. 46. Prior to disturbing any presently undisturbed soils for mill related activitie (including borrow areas for tailings reclamation cover) in the future, the licensee shall have an archeological survey conducted of the site(s) to be disturbed. The Utah State Department of Development Services and the U.S. Department of the Interior shall be contacted by the licensee prior to the surt to provide assistance or comment in planning such a survey. The completed surshall be submitted to the USNRC, Uranium Recovery field Office, for review and approval to proceed prior to any disturbance of presently undisturbed areas. 47. The licensee shall conduct an annual survey of land use (grazing, residence, wells, etc.) in the area within two miles of the mill and submit a report of the survey annually to the USNRC, Uranium Recovery Field Office. This report shall indicate any differences in land use from that described in the licensee's previous annual land use report. The report shall be submitted by March 31 of each year. 48. The results of the effluent and environmental monitoring programs required by this license shall be reported in accordance with 10 CFR 40, Section 40.65 with copies of the report sent directly to the USNRC, Uranium Recovery Fi	NRC For	1 374A U.S. NUCLEAR REGULATORY COMMISSION	FAGE ** OF 1500
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			ed for U-nat, Ra-226 and Th-230,
Section 3 of Regulatory Guide 4.15.		B. The analysis of quality control samples Section 3 of Regulatory Guide 4.15.	shall be in accordance with

- 46. Prior to disturbing any presently undisturbed soils for mill related activities (including borrow areas for tailings reclamation cover) in the future, the licensee shall have an archeological survey conducted of the site(s) to be The Utah State Department of Development Services and the U.S. Department of the Interior shall be contacted by the licensee prior to the survey to provide assistance or comment in planning such a survey. The completed survey shall be submitted to the USNRC, Uranium Recovery Field Office, for review and approval to proceed prior to any disturbance of presently undisturbed areas.
- The licensee shall conduct an annual survey of land use (grazing, residence, 47. wells, etc.) in the area within two miles of the mill and submit a report of this survey annually to the USNRC, Uranium Recovery Field Office. This report shall indicate any differences in land use from that described in the licensee's previous annual land use report. The report shall be submitted by March 31 of each year.
- The results of the effluent and environmental monitoring programs required by 48. this license shall be reported in accordance with 10 CFR 40. Section 40.65 with copies of the report sent directly to the USNRC, Uranium Recovery Field Office. Data from the effluent and environmental monitoring program shall be reported in accordance with the format in the attachment to SUA-917 entitled, "Sample format For Reporting Monitoring Data."
- The licensee shall conduct an environmental and effluent monitoring program as 49. specified in the renewal application in accordance with Table 5.5-8 during normal operations and Table 5.5-9 during periods of extended shutdown with the following modifications:
 - Air particulate samples shall be analyzed for U-nat, Ra-226 and Th-230, A. quarterly.
 - The analysis of quality control samples shall be in accordance with B. Section 3 of Regulatory Guide 4.15.

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C.	Lower limits of detection utilized for s	ample analysis	s sha	11 be	e in		

- C. Lower limits of detection utilized for sample analysis shall be in accordance with Section 5 of Regulatory Guide 4.14.
- D. Soil and vegetation sampling shall be analyzed annually for Ra-226 and Pb-210.
- E. Notwithstanding the ground-water monitoring specified in Tables 5.5-8 and 5.5-9, the licensee shall monitor the ground water as described in License Condition No. 17.
- 50. The licensee shall conduct a bioassay program in accordance with Section 5.5.4 of the renewal application with the following additions:
 - A. Laboratory surfaces used for in-house bioassay analyses shall be decontaminated to less than 25 dpm alpha-(removable)/100 cm² prior to analysis of samples.
 - B. Anytime an action level of 15 ug/l uranium for urinalysis is reached or exceeded, the licensee shall document the corrective actions which have been performed in accordance with Revision 1 of Regulatory Guide 8.22, dated January 1987. This documentation shall be submitted to the NRC, Uranium Recovery Field Office, as part of the semiannual report required by 10 CFR 40.65 and Condition No. 48 to this license.
 - C. Anytime an action level of 35 ug/l for two consecutive specimens or 130 ug/l uranium for one specimen for urinalysis is reached or exceeded, the licensee shall document the corrective actions which have been performed in accordance with Revision 1 of Regulatory Guide 8.22. This documentation shall be submitted to the NRC, Uranium Recovery Field Office, within thirty (30) days of exceeding the action level.

- 51. DELETED by Amendment No. 6.
- 52. A: Construction of a roadway toward the center of the tailings impoundment for use by mobile equipment in the application and inspection of binding agents for dust control and to provide access during initial reclamation activities, shall be in accordance with submittals dated July 14 and August 19, 1988.
 - B. Any proposed changes to the roadway or its uses, as described in the licensee's July 14 and August 19, 1988 submittals, shall require prior approval of the USNRC, Uranium Recovery Field Office, in the form of a license amendment.
- 53. Notwithstanding conflicting statements in Sections 5.4 and 7.14 of the licensee's license renewal application, the licensee shall conduct inspections of the tailings system and the fenceline in accordance with their submittal dated

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Manch	22, 1989. Within two weeks of the effe	ctive date of this	amondm	ant t	ho

March 22, 1989. Within two weeks of the effective date of this amendment, the licensee shall update the Emergency Procedures Manual, Standby Procedures Manual, and inspection forms and reports to reflect these changes.

FOR THE NUCLEAR REGULATORY COMMISSION

Dated:

9/29/89

Ramon E. Hall

Director

Uranium Recovery Field Office

Region IV

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