



The State
of Wyoming



Department of Environmental Quality

Jim Geringer, Governor

Herschler Building • 122 West 25th Street • Cheyenne, Wyoming 82002

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September 18, 2000

Joseph J. Holonich
Uranium Recovery Projects Branch
Division of Waste Management
Mail Stop T 7 J9
Washington, D.C. 20555

docket # 40-8502

Re: **Christensen Ranch Water Disposal Wellfield**
Draft Permit UIC 00-340
Johnson County, Wyoming

Dear Mr. Holonich:

Enclosed please find one copy of the draft permit on the above referenced well and one copy of the public notice. The public notice period is slated to start October 2, 2000 and end October 31, 2000. Please provide whatever comments you wish before the end of the public comment period.

Copies of the application have been sent to the Bureau of Land Management, the Oil and Gas Conservation Commission, the Environmental Protection Agency, the Wyoming State Engineer, and the Land Quality Division, along with a copy of the draft permit and public notice. Copies of the draft permit and public notice only were sent to the Wyoming Game and Fish Department and the Wyoming Historical Preservation Office. Once finalized, a copy of the application, public notice, and permit will be sent to State Archives, and one copy will be retained in our office.

Cogema Mining, Inc. will not be able to begin injection into wells Cogema DW No. 2 and Cogema DW No. 3 until the Environmental Protection Agency has issued an aquifer exemption for the Lance Formation in these two new wells.

Sincerely,

Robert Lucht, P.E.
UIC Program Supervisor
Water Quality Division

RFL/bb/02345.ltr
encl: Draft Permit 97-407 & Public Notice

*Rec'd
10/18/00
DED*

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PUBLIC NOTICE

THE PURPOSE OF THIS NOTICE IS TO INDICATE THE STATE OF WYOMING'S INTENTION TO ISSUE AN UNDERGROUND INJECTION CONTROL PERMIT AND TO CLASSIFY THE RECEIVING GROUNDWATER OF THE STATE IN THE VICINITY OF THE PERMITTED INJECTION UNDER THE WYOMING ENVIRONMENTAL QUALITY ACT (35-11-101 ET. SEQ. WYOMING STATUTES 1957, CUMULATIVE SUPPLEMENT 1973), AND DEPARTMENT OF ENVIRONMENTAL QUALITY, WATER QUALITY RULES AND REGULATIONS CHAPTERS 8 AND 13 (March 11, 1993). IT IS THE STATE OF WYOMING'S INTENTION TO ISSUE AN UNDERGROUND INJECTION CONTROL PERMIT FOR THE DISPOSAL OF NON-HAZARDOUS INDUSTRIAL WASTEWATER AS DEFINED IN CHAPTER 2, SECTION 1(c), WYOMING HAZARDOUS WASTE RULES AND REGULATIONS.

PERMITTEE NAME: COGEMA Mining, Inc., 935 Pendell Boulevard, P.O. Box 730, Mills, WY 82644; (307) 234-5019 PERMIT NUMBER: UIC 00-340 CLASS 1-i.

FACILITY NAME AND LOCATION: Christensen Ranch Disposal Wellfield including four disposal wells: the Cogema DW No. 1 disposal well located in the SE $\frac{1}{4}$ NW $\frac{1}{4}$ Section 7, Township 44 North, Range 76 West, Sixth Principal Meridian; Cogema DW No. 2 disposal well located in the SW $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 7, Township 44 North, Range 76 West, Sixth Principal Meridian; Cogema DW No. 3 disposal well located in the center of the SW $\frac{1}{4}$ Section 5, Township 44 North, Range 76 West, Sixth Principal Meridian; and the Christensen 18-3 well located in the NE $\frac{1}{4}$ NW $\frac{1}{4}$ Section 18, Township 44 North, Range 76 West, Sixth Principal Meridian, all in Johnson County, Wyoming (Within One Mile of the Christensen Ranch Insitu Leaching Uranium Mine).

COGEMA Mining, Inc. has been and will continue to inject wastewater from the Christensen Ranch Insitu Leaching Uranium Mine into the Lance Formation. The wells covered under this permit inject at depths between 3,818 to 6,496 feet below ground surface. The waste contains residual amounts of uranium, radium from the uranium recovery operation, and significant amounts of Total Dissolved Solids produced by the process and routed to the wastewater. The proposed permit replaces previous permits and adds two additional injection wells to the two previously permitted. The net affect of this permit is to allow for injection of the same or a slightly reduced total amount of waste over a shorter time using four wells instead of two.

Before any other industrial waste is approved for injection, documentation will be required to show that it is non-hazardous waste as defined by 40 CFR 261.3.

The maximum injection pressure as measured at the wellhead is limited to 1,200 psi for the Cogema DW No. 1 and 993 psig for the Christensen 18-3. Step rate injection tests are required to be done on these wells to determine the exact pressure at which the formation fractures. The injection rate is limited to 359,982 gallons per day (8,571 barrels per day) in any one well. The total injection rate as a sum of all four wells together is limited to 719,964 gallons per day (17,142 barrels per day). The injection rate varies widely over the course of the year, but limitations are placed to insure that no injection will occur at a pressure higher than the indicated fracture pressure of the formation.

The proposed permit requires that the permittee monitor the injection continuously and submit periodic reports. Underground Injection Control regulations require that each permitted injection well be reviewed thoroughly at least every 5 years in addition to the normal review done quarterly. The proposed permit also modifies the frequency of pressure falloff tests required to be done on these wells.

The water in the injection zone within 1/4 mile of these wells is class VI (unsuitable for use) because: 1. It contains in excess of 6.9 mg/l of Benzene, 18.9 mg/l of Oil and Grease, 27.8 mg/l Iron, 1.04 mg/l Boron, 14.1 mg/l zinc, .004 mg/l mercury, .33 mg/l phenolics, and 2,460 mg/l of Total Dissolved Solids; 2. The injection zone is likely to contain traces of oil and gas at levels high enough to make its use impossible. An aquifer exemption has been applied for through the Environmental Protection Agency to cover the Lance Formation in Cogema DW No. 2 and Cogema DW No. 3.

The State of Wyoming has placed conditions on the permit. These conditions will assure that useable water of the state will be protected and applicable provisions of state statutes and regulations will be followed.

PUBLIC COMMENTS on the proposed operation, the proposed groundwater classification, and the State's intent, are invited on or before October 31, 2000. Comments should be in writing and addressed to the Wyoming Department of Environmental Quality, Water Quality Division, Robert Lucht, UIC Program Supervisor, Herschler Building, 4W, 122 West 25th Street, Cheyenne, Wyoming 82002. All comments received prior to 5:00 p.m., October 31, 2000 in the Cheyenne office will be considered. Additional information on this case may be obtained by calling the State of Wyoming, Robert Lucht, UIC Program Supervisor, 777-7095, (307) 777-5973 (FAX) or blucht@state.wy.us or by writing to the above address.

Any interested person may request, in writing prior to the end of the public comment period, that a public hearing be held. Requests should indicate the name and full mailing address of the individual requesting a hearing, the interest that individual has in the project, and the grounds for holding a public hearing. If a hearing is not warranted, the final permit will be issued at the end of the public comment period.

**DEPARTMENT OF ENVIRONMENTAL QUALITY
STATE OF WYOMING
UNDERGROUND INJECTION CONTROL PERMIT
ISSUED UNDER CHAPTER 13
WYOMING WATER QUALITY RULES AND REGULATIONS
CLASS I INJECTION WELL**

() New
(X) Modified

Permit Number: UIC 00-340
Reference old permits: UIC 97-407
UIC 95-241
UIC 88-545

In compliance with the Wyoming Environmental Quality Act (W.S. 35-11-101 through 1104, specifically 301(a)(i) through 301 (a) (iv), Laws 1973, Ch. 250, Section 1) and Water Quality Rules and Regulations Chapter 13 (1993),

Applicant: COGEMA Mining, Inc.
935 Pendell Boulevard
P.O. Box 730
Mills, WY 82644 (307) 234-5019

is authorized to operate the Christensen Ranch Disposal Wellfield including four disposal wells: the Cogema DW No. 1 disposal well located in the SE¼NW¼ Section 7, Township 44 North, Range 76 West, Sixth Principal Meridian; the Cogema DW No. 2 disposal well located in the SW¼SE¼NE¼ Section 7, Township 44 North, Range 76 West, Sixth Principal Meridian; the Cogema DW No. 3 disposal well located in the center of the SW¼ Section 5, Township 44 North, Range 76 West, Sixth Principal Meridian; and the Christensen 18-3 well located in the NE¼NW¼ Section 18, Township 44 North, Range 76 West, Sixth Principal Meridian, both in Johnson County, Wyoming; according to the procedures and conditions of application numbers 88-545, 95-241 and 97-407 and requirements and other conditions as found on pages 1-14 of this permit. This permit shall become effective on date of issuance.

Administrator
Water Quality Division
Herschler Building, 122 West 25th Street
Cheyenne, WY 82002
Phone: (307) 777-7781

Date

Director
Department of Environmental Quality
Herschler Building, 122 West 25th Street
Cheyenne, WY 82002

Date

TABLE OF CONTENTS

A. Discharge Zone 4

B. Area of Review 4

 1. The wells authorized by this permit is/are located in: 4

 2. The Area of Review 4

C. Groundwater Classification 5

 1. The groundwater in the Lance Formation 5

D. Authorized Operations 5

 1. The initial perforations 5

 2. The packer set 5

 3. Cogema Mining, Inc. is authorized to inject 17,142 barrels per day 5

 4. Produced water 5

 5. Cogema Mining, Inc. is authorized to inject at a pressure of no more than 1,200 psig . . 6

 6. The annulus between the injection tubing and the casing 6

 7. The composite injection stream may also contain 6

E. Hazardous Waste 6

F. Proper Operation and Maintenance 6

 1. Cogema Mining, Inc. shall take all reasonable steps 6

 2. Cogema Mining, Inc. shall operate and maintain 6

 3. The injection wells covered by this permit shall meet all construction 6

 4. Cogema Mining, Inc. is required to conduct the operation 7

 5. Any modifications which will result in a violation 7

 6. Injection into a well may not commence 7

G. Entry and Inspection 7

H. Environmental Monitoring Program for Groundwaters of the State 7

I. Requirements for Monitoring the Discharge 7

 1. Cogema Mining, Inc. shall monitor the injection pressure continuously 7

 2. Cogema Mining, Inc. shall monitor the injection volume continuously 7

 3. Cogema Mining, Inc. shall monitor pressure on the casing/tubing annulus 7

 4. Cogema Mining, Inc. shall shut one of the wells covered by this permit in annually for a period of time long enough to observe a valid pressure falloff curve. 7

 5. Cogema Mining, Inc. shall monitor the quality of the injected water 8

J. Test Procedures 8

 1. All samples and measurements taken 8

 2. All required analyses shall be conducted 8

K. Records and Reports 9

 1. Cogema Mining, Inc. shall furnish 9

 2. Cogema Mining, Inc. shall retain copies 9

DRAFT

PERMIT

NUMBER

3.	Reports of compliance or noncompliance	9
4.	Confirmed noncompliance	9
5.	Confirmed noncompliance not already reported	9
6.	Cogema Mining, Inc. shall notify	9
7.	The quarterly report of operations	9
8.	The annual report of operations	10
L.	<u>Permit Actions</u>	10
1.	This permit is issued for a period of ten (10) years	10
2.	It shall not be a defense	10
3.	The filing of a request	10
4.	After notice and opportunity for a hearing	10
5.	This permit will be reviewed	10
M.	<u>Mechanical Integrity</u>	11
1.	Mechanical Integrity shall be maintained continuously	11
2.	Other types of logs may be substituted	11
3.	During the first ninety (90) days of operation	11
4.	Should any of the above tests show	11
5.	If at any time injection occurs in any zone not	11
N.	<u>Abandonment</u>	11
1.	Cogema Mining, Inc. shall notify	11
2.	Within thirty (30) days after	11
3.	At the time of permanent abandonment	12
4.	Each of these wells shall be	12
O.	<u>Duties of the Permittee</u>	12
1.	Cogema Mining, Inc. shall give advance notice	12
2.	Cogema Mining, Inc. shall furnish	12
3.	Any modification which may result	12
4.	Cogema Mining, Inc. shall report	12
5.	Monitoring results shall be reported	12
P.	<u>Financial Responsibility</u>	12
1.	Cogema Mining, Inc. has posted	12
2.	Cogema Mining, Inc. shall maintain	12
Q.	<u>Special Conditions</u>	13
1.	In addition to the conditions required	13
2.	Permits UIC 88-545, UIC 95-24, and UIC 97-407 are hereby canceled.	13
3.	aquifer exemption for the Lance Formation	13
R.	<u>Signatories Requirement</u>	13
1.	All reports filed	13
2.	All reports required	13
3.	If an authorization is no longer accurate	14

DRAFT

UIC

PERMIT

NUMBER 1

S. Noncompliance 14

1. Cogema Mining, Inc. shall comply 14

2. The filing of any request 14

T. Permit Transfer 14

1. Any transfer of this permit 14

2. Cogema Mining, Inc. is alone responsible 14

U. Property Rights 14

1. This permit does not convey 14

V. Severability 14

1. Nothing in this permit 14

2. The provisions of this permit are severable 14

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A. Discharge Zone

1. These injection wells are authorized to inject into the Lance Formation. In the Cogema DW No. 1, DW No. 2, and DW No. 3 this formation is found in the well bore from approximately 3,818 to 6,496 feet below ground surface. In the Christensen 18-3 this formation is found in the well bore from 4,009 to 6,496 feet below the ground surface.
2. The shales within the Lance and Lower Fort Union Formations form the confining layer above the receiver and the shales within the lower Lance Formation form the confining layer below the Lance receiver.

B. Area of Review

PERMIT

1. The wells authorized by this permit is/are located in:

Township 44 North, Range 76 West, 6th Principal Meridian

- Section 5: Center of the SW ¼
- Section 7: SE ¼ NW ¼
- Section 7: SW ¼ SE ¼ NE ¼
- Section 18: NE ¼ NW ¼

2. The Area of Review around these wells is legally described as:

Township 44 North, Range 76 West, 6th Principal Meridian

- Section 5: SW ¼, S ½ NW ¼
- Section 7: NE ¼, S ½ NW ¼, NE ¼ NW ¼, SW ¼ SE ¼, N ½ SE ¼, SW ¼
- Section 8: W ½ NW ¼, NE ¼ NW ¼, NW ¼ SW ¼
- Section 18: NW ¼, W ½ NE ¼

NUMBER 1

C. Groundwater Classification

1. The groundwater in the Lance Formation is classified as class VI under Chapter 8 of Wyoming Water Quality Rules and Regulations (March 11, 1993.) This classification was made because:
 - a. The groundwater in the Lance Formation contains between 1,400 and 2,460 mg/l of Total Dissolved Solids. The groundwater in the Lance Formation contains as much as 6.900 mg/l of Benzene, 18.9 mg/l of Oil and Grease, 27.8 mg/l of Iron, 1.04 mg/l of Boron, 14.1 mg/l of Zinc, .004 mg/l of Mercury, and .33 mg/l of Total Phenolics. The Benzene content of this groundwater, at baseline, exceeds the limits set by the Resource Conservation and Recovery Act for characteristic Hazardous Waste.
 - b. This formation naturally contains traces of oil and gas and cannot be reasonable expected to provide a source of drinking water at this location.

D. Authorized Operations

1. The initial perforations in the Cogema DW No. 1 well are within the Lance Formation from 3,818 to 6,320 feet. The initial perforations in the Christensen 18-3 well are from 4,009 to 6,495 feet. The initial perforations in Cogema DW No. 2 and Cogema DW No. 3 are from 3,831 to 6,318 feet. Additional perforations may be installed within the permitted receiver as defined in Section A of this permit with the prior approval of the Water Quality Division.
2. The packer set on the bottom of the tubing shall be set within 500 feet of the top of the authorized discharge zone. Initial packer setting for the Cogema DW No. 1, Cogema DW No. 2, and Cogema DW No. 3 wells will be between 3,400 and 3,800 feet and the initial packer setting for the Christensen 18-3 well will be between 3,600 and 4,000 feet.
3. Cogema Mining, Inc. is authorized to inject 17,142 barrels per day, (719,964 gallons per day) of industrial wastes as a total of the volume injected into all four wells. A total volume of 8,571 barrels per day may be injected into any one well provided that the pressure limitations are not exceeded. Wastes injected shall be as described: normal overproduction (bleed) streams, yellowcake wash water, laboratory waste, R.O. brine, and plant washdown water from the Irigaray and Christensen Ranch operations, both covered by Land Quality Division Permit to Mine 478. All of these waste streams are beneficiation wastes, exempt from RCRA regulation under the Bevill Amendment found in 40 CFR 261.4(b)(7). All of these waste streams fall under SIC code 109. Cogema Mining, Inc. is authorized to accept and dispose of fluids from other similar in situ leaching operations with prior WQD approval.
4. Produced water from oil and gas operations or fluids from other industrial operations may be accepted for disposal with prior written WQD approval. Analyses will be required prior to injection of any waste not produced on the project covered by LQD Permit to Mine 478. The exact parameters to be analyzed will be determined prior to accepting any such waste. Cogema Mining, Inc. shall contact WQD for guidance prior to ordering analyses. For any waste which is not exempt from RCRA regulation at the time of injection, Cogema Mining, Inc. shall provide at a minimum, tests for EP corrosivity, EP Toxicity using the Toxicity Characteristic Leaching Procedure (TCLP), EP Ignitability, and EP Reactivity. The Water Quality Division may waive in writing the requirement for

individual tests based on the source and nature of the waste to be disposed of. The Water Quality Division may issue approvals under this permit for injection of industrial waste from a single source for up to three years from the date of the original analyses. Such approvals may require additional analyses during their term.

5. Cogema Mining, Inc. is authorized to inject at a pressure of no more than 1,200 psig as measured at the wellhead for the Christensen 18-3. Cogema Mining, Inc. is authorized to inject at a pressure of no more than 993 psig as measured at the wellhead for the Cogema DW-1, Cogema DW No. 2, and Cogema DW No. 3. The pressure of injection shall be continuously monitored and recorded.
6. The injection pressure shall be limited to 90% of the fracture pressure as measured at the surface using a step injection test. Cogema Mining, Inc. may conduct additional step injection tests at a later time to determine changes in the fracture pressure as the injection continues. After acceptance by the Administrator of these tests, Cogema Mining, Inc. shall limit the injection pressure to 90% of the new fracture pressure as measured on the surface.
7. The annulus between the injection tubing and the casing in each well shall be maintained at a pressure of not less than 200 psig nor more than 800 psig.
8. The composite injection stream may also contain a small amounts of corrosion inhibitors, scale inhibitors, oxygen scavengers, and biocides. The use of these additives is authorized provided that Cogema Mining, Inc. shall provide MSDS sheets for all such additives, the amounts to be used, and shall obtain written approval from the Water Quality Division prior to using any other additive.

E. Hazardous Waste

1. This permit does not allow for the injection of any hazardous waste as defined by 40 CFR 261. Injection of any substance defined as hazardous waste, whether hazardous by listing or by characteristic is a violation of this permit. The above references shall be the current references at the time that disposal is to be made. The above restriction on the disposal of hazardous waste supersedes all other provisions of this permit.

F. Proper Operation and Maintenance

1. Cogema Mining, Inc. shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit.
2. Cogema Mining, Inc. shall operate and maintain all facilities and systems of treatment and control which are installed or used by Cogema Mining, Inc. to achieve compliance with the conditions of the permit. Proper operation and maintenance includes mechanical integrity of the well, effective performance, adequate funding and operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this permit.
3. The injection wells covered by this permit shall meet all construction requirements outlined in Chapter 13, Section 11 of the Wyoming Water Quality Rules and Regulations.

4. Cogema Mining, Inc. is required to conduct the operation in accordance with statements, representations and procedures presented in the complete permit application and supporting documents, as accepted and approved by the Administrator.
5. Any modifications which will result in a violation of permit conditions shall be reported by submission of a new or amended permit application and shall not be implemented until a new or modified permit has been issued.
6. Injection into a well may not commence until construction is complete and EPA has issued, in final form, an aquifer exemption for the Lance Formation.

G. Entry and Inspection

1. Cogema Mining, Inc. shall allow the Administrator, or an authorized representative for the Administrator, upon presentation of credentials and during normal working hours, to enter the premises where a regulated facility is located, or where records are kept under the conditions of this permit, and inspect the discharge and related facilities, review and copy reports and records required by this permit, collect fluid samples for analysis, measure and record water levels, and perform any other function authorized by law or regulation.

H. Environmental Monitoring Program for Groundwaters of the State

1. Because of the depth of injection, the type of waste, and/or the amount of groundwater sampling already required in the general vicinity of this facility, no other groundwater monitoring plan is required.

I. Requirements for Monitoring the Discharge

1. Cogema Mining, Inc. shall monitor the injection pressure continuously and record those readings on a strip chart recorder, a circular chart recorder, or digitally by computer interface with the pressure transducer on the well or in the injection plant. A High pressure kill switch shall also be installed on the injection tubing. This device shall be set to preclude violations the maximum injection pressure.
2. Cogema Mining, Inc. shall monitor the injection volume continuously and record those readings on a strip chart recorder, a circular chart recorder, or digitally by computer interface with the pressure transducer on the well or in the injection plant.
3. Cogema Mining, Inc. shall monitor continuously the pressure on the casing/tubing annulus and shall maintain a positive pressure on that annulus. The pressure maintained shall be not less than 200 psig nor more than 800 psig. Cogema Mining, Inc. shall record the annulus pressure continuously on a strip chart recorder, a circular chart recorder, or digitally by computer interface with the pressure transducer on the wellhead. A High/Low pressure kill switch shall also be installed on the casing/tubing annulus. This device shall be set to preclude violations of the permit for annulus pressure.
4. Cogema Mining, Inc. shall shut one of the wells covered by this permit in annually for a period of time long enough to observe a valid pressure falloff curve. Each year, a well which was not tested in the previous year shall be tested, until all wells are tested in sequence. After all four wells have been tested, the testing shall begin again at the first well tested. This test shall be analyzed by

Cogema Mining, Inc. using the either the Miller Dyes Hutchinson (MDH) method or the Horner Method. In either case, graphs of this test shall be submitted to include either the MDH or Horner Plot and a Log-Log Plot after injection. From these plots, the Transmissivity in md-ft/cp, the permeability in md, and the dimensionless skin factor shall be calculated and submitted to WQD with the next quarterly report after the test is done.

5. The first pressure falloff curve shall be run using gauges with an accuracy of .01 psi and shall continue until ambient reservoir pressure has been reached, even if this requires the use of down hole gauges to measure pressures of less than atmospheric. In addition, the use of similar gauges on any subsequent test is required, if this procedure is necessary to make proper interpretations of the data.
6. Cogema Mining, Inc. shall monitor the quality of the injected water on an approved schedule. The following parameters shall be analyzed by the listed methods and reported quarterly:

SAMPLING SCHEDULE	ANALYTICAL METHOD	PARAMETER ANALYZED	PERMIT LIMIT OR (UCL)
Quarterly	EPA Method 160.1	Total Dissolved Solids	No Limit
	EPA Method 310.1	Total Alkalinity	No Limit
	EPA Method 908.1	Natural Uranium	65
	EPA Method 903.1	Radium 226	No Limit
	EPA Method 150.1	pH	>2.0, <11.0

*All chemical parameters listed in this permit are expressed in mg/l unless otherwise shown. pH is always expressed in standard units, and Conductivity is always expressed in mmhos/meter or umhos/cm. Cogema Mining, Inc. shall use the above listed methods unless an alternate method is first approved by the WQD. The above analyses shall be done on samples which are composited from at least four samples taken over a period of at least two weeks.

The above Upper Control Limit (UCL) is not to be exceeded in any sample. Exceedance of this value is a violation of this permit and shall require notification under section O of this permit. Failure to perform and report analyses in accordance with the prescribed schedule and method is also a violation of this permit.

J. Test Procedures

NUMBER 1

1. All samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. All samples taken shall include a trip blank of distilled water for each sampling date and a duplicate sample at least once per year.
2. All required analyses shall be conducted in compliance with Chapter 8 Section 7, Wyoming Water Quality Rules and Regulations.

K. Records and Reports

1. Cogema Mining, Inc. shall furnish to the Administrator, within a specified time, any information which the Administrator may request relating to the operation of the facility, including copies of records required to be kept by this permit.
2. Cogema Mining, Inc. shall retain copies of all records and reports required by this permit, for a period of three (3) years following permanent well abandonment. After that time, those same records shall be delivered to the Administrator for disposal or archive at his sole discretion.
3. Reports of compliance or noncompliance with, and any progress reports on, interim and final requirements contained in any compliance schedule shall be submitted no later than thirty (30) days following each schedule date.
4. Confirmed noncompliance resulting in the migration of injected fluid into any zone outside the permitted receiver shall be reported to the Administrator orally within twenty-four (24) hours, and a written submission shall be provided within five (5) days of the time Cogema Mining, Inc. becomes aware of the excursion. The written submission shall contain: a description of the noncompliance; the period of noncompliance, including exact dates and times, and if the noncompliance has not been controlled, the anticipated time it is expected to continue; and a list of the steps taken or planned to reduce, eliminate, and prevent the recurrence of the noncompliance.
5. Confirmed noncompliance not already reported under this section shall be reported at the time monitoring reports are submitted. the reports shall contain the same information as required by the paragraph above.
6. Cogema Mining, Inc. shall notify the administrator thirty (30) days in advance of any planned alteration, conversion or abandonment of the well(s) covered by this permit.
7. The quarterly report of operations for these wells shall be submitted on forms provided by the department and shall include the following information:
 - a. The minimum, average and maximum daily injection rate for each of the wells, for each month of the quarter. The page showing the maximum injection rate shall also show the maximum permitted injection rate for comparison.
 - b. The minimum, average, and maximum daily injection pressure for each of the wells for each month of the quarter. The page showing the maximum injection pressure shall also show the maximum permitted injection pressure for comparison.
 - c. The total injection volume in barrels or gallons for each month of the quarter, the total for the quarter, the total cumulative injected to date all for each well separately.
 - d. The maximum and minimum annulus pressure for each month of the quarter for each well separately.
 - e. Any permit exceedances within the quarter.

- f. Any tests run during the quarter. This includes, but is not limited to, the results on any Mechanical Integrity Tests, Pressure Falloff Tests, Step Injection Tests, or any well workovers.
 - g. The analytical results for sampling for the injected water and any groundwater sampling results required under Section H.
 - h. Quarterly reports are due in the Cheyenne office of the Water Quality Division no later than 30 days after the end of each calendar quarter.
8. The annual report of operations on these wells shall be filed at the time when the fourth quarterly report is due and shall include the fourth quarterly report and the following additional information:
- a. A graphical representation of the injection pressure and volume for over time the previous five year's operation. This graph shall have the dates of the year on the abscissa and the pressure and volume as the ordinate.
 - b. Graphical representations of the quality of the injected water over time. These graphs shall show the injected quality for the previous five year's operation and shall be prepared on appropriate scales to show the variation.
 - c. Monitoring results shall be reported in the annual reports unless otherwise specified.

L. Permit Actions

- 1. This permit is issued for a period of ten (10) years. If Cogema Mining, Inc. wishes to continue injection after the expiration date of this permit, he shall apply to the Administrator and obtain a new permit prior to the expiration date of this permit.
- 2. It shall not be a defense for a permittee in an enforcement action that it would be necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.
- 3. The filing of a request by Cogema Mining, Inc., or at the instigation of the Administrator, for permit modification, revocation, termination, or notification of planned changes or anticipated noncompliance shall not stay any condition of this permit.
- 4. After notice and opportunity for a hearing, a permit may be modified, suspended or revoked in whole or part during its term for cause which includes, but is not limited to, any of the following:
 - a. Violation of this permit;
 - b. Obtaining a permit by misrepresentation of facts in the application; or
 - c. Failure of the casing, cement or the confining layer.
- 5. This permit will be reviewed at least once every five (5) years, and may be reviewed more frequently. A permit may be modified at any time as may be required, including for conformity with changes in regulations or standards which occur after the permit was issued. A permit may be modified in

whole or part in order to apply more or less, stringent standards; or prohibitions for toxic or other substance present in Cogema Mining, Inc.'s discharge, as may be ordered by the council.

M. Mechanical Integrity

1. Mechanical Integrity shall be maintained continuously and reviewed at least once every five (5) years. The test used to determine mechanical integrity shall be a two part test approved by the Administrator.
 - a. Part I of the Mechanical Integrity test shall demonstrate the absence of leaks through the packer, tubing, casing and wellhead. Prior to injection and at least once every five years, and more frequently if required by the Administrator, the casing tubing annulus of each of these wells shall be pressure tested to 1,500 psig. A successful test shall show that there has been negligible pressure loss after 15 minutes at 1,500 psig.
 - b. Part II of the Mechanical Integrity test shall demonstrate the absence of fluid movement behind the casing. Prior to injection and at least once every five years, and more frequently if required by the administrator, each of these wells shall be logged using a radioactive tracer log and a temperature log and the results and their interpretation shall be reported to the Water Quality Division along with the next quarterly report.
2. Other types of logs may be substituted for Part II of the Mechanical Integrity Test with the prior written approval of the Water Quality Division.
3. During the first ninety (90) days of operation of either of these wells as a Lance Formation injection well, both parts of the mechanical integrity test shall be run.
4. Should any of the above tests show a lack of mechanical integrity, the Water Quality Division shall be notified by telephone within 24 hours and with a written report within 7 days. In the case of a failed mechanical integrity test, the well shall be immediately shut-in. Injection shall not resume until the well has been repaired and a complete mechanical integrity test has been passed. Injection shall not resume until the Water Quality Division has approved these tests.
5. If at any time injection occurs in any zone not within the permitted receiver, a permit violation has occurred. The operator shall prepare an estimate of the volume and quality of all wastewaters which were injected outside of the permitted receiver. In the case where any aquifer meeting the standards for class I through IV under Chapter 8 has been contaminated due to out of zone injection, the operator shall prepare and implement a plan to recover these solutions and inject them into the proper receiver.

N. Abandonment

1. Cogema Mining, Inc. shall notify the administrator at such times as the permit requires before conversion or abandonment of the well.
2. Within thirty (30) days after plugging and abandonment of the well(s) covered by this permit, Cogema Mining, Inc. shall submit a plugging and abandonment report, detailing the compliance abandonment procedures outlined in the original permit application, and describing any deviation from the original plan. The abandonment plan shall include reclamation of the well location.

3. At the time of permanent abandonment, the following procedure shall be followed: A minimum of 200 sacks of cement shall be squeezed through the perforations using a cement retainer set at the approximate depth of the production packer. The casing above the retainer shall then be filled with cement to the surface and a standard dry hole marker welded to a blind flange shall be bolted to the exposed casing flange. Regardless of the above procedure, the abandonment procedure used shall not be less stringent than the procedure required by the Oil and Gas Conservation Commission for abandoned oil wells at the time of abandonment.
4. Each of these wells shall be properly abandoned within six months of the end of operation. These wells shall be considered temporarily abandoned any time there has been no injection for six full months. If these wells are temporarily abandoned at any time, the operator may retain them in this status so long as all monitoring equipment is maintained in working order and all pumps are also maintained. During the period of temporary abandonment, all reports shall be filed as for an active well, but monitoring of the injected fluid is waived. Should the operator remove any of the required equipment from service, other than for maintenance, then the wells shall be permanently abandoned within six months of that time.

O. Duties of the Permittee

1. Cogema Mining, Inc. shall give advance notice to the Administrator as soon as possible of any planned physical alteration or additions, other than authorized operation and maintenance, to the permitted facility and receive authorization prior to implementing the proposed alternation or addition.
2. Cogema Mining, Inc. shall furnish to the Administrator within a reasonable time, any information which the Administrator may request to determine whether cause exists for modifying, revoking, or reissuing, or terminating this permit, or to determine compliance with this permit; and to furnish to the Administrator upon request, copies of records required to be kept by this permit.
3. Any modification which may result in a violation of a permit condition shall be reported to the Administrator, and any modification that will result in a violation of any permit conditions shall be reported to the administrator through the submission of a new or amended permit application.
4. Cogema Mining, Inc. shall report all instances where he becomes aware that he failed to submit any relevant facts in the permit application, or where he submitted incorrect information in a permit application or in any report to the Administrator, and shall promptly submit such facts or information.
5. Monitoring results shall be reported at the intervals specified elsewhere in this permit.

P. Financial Responsibility

1. Cogema Mining, Inc. has posted the required financial instruments to guarantee the plugging and abandonment of the non-hazardous waste injection well covered by this permit. The specific financial instrument provided is: Letter of Credit No. 93/832 issued by Credit Commercial de France of New York. This letter of credit includes a total of \$115,000 for the abandonment of these injection wells and is updated on an annual basis. The updated costs are approved by both the Department of Environmental Quality and the Nuclear Regulatory Commission.
2. Cogema Mining, Inc. shall maintain the above instrument or a replacement instrument for the duration of this permit and until all post-closure care requirements have been satisfied.

Q. Special Conditions

1. In addition to the conditions required of all permits, the administrator has established conditions as required for monitoring, schedules of compliance, and such additional conditions as are necessary to prevent the migration of fluids into underground sources of drinking water. These conditions are established in conformance with Chapter 13, Section 9(e).
2. Permits UIC 88-545, UIC 95-24, and UIC 97-407 are hereby canceled.
3. Cogema Mining, Inc. may install Cogema DW No. 2 and Cogema DW No. 3 wells as soon as this permit is issued. Cogema Mining, Inc. may not inject into either of these wells until the Environmental Protection Agency has issued an amended aquifer exemption for the Lance Formation to cover these two wells.

R. Signatories Requirement

DRAFT

1. All reports filed in conjunction with this permit shall contain the following certification:

"I certify, under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

2. All reports required by this permit and other requested information shall be signed as follows:
 - a. For a corporation -- by a principal executive officer of at least the level of vice-president;
 - b. For a partnership or sole proprietorship -- by a general partner or the proprietor, respectively;
 - c. For a municipality, state, federal or other public agency -- by either a principal executive officer or ranking elected official;

or

- d. By a duly authorized representative for any of the above. A person is a duly authorized representative only if:
 1. The authorization is made in writing by one of the described principals;
 2. The authorization specifies either an individual or position having responsibility for the overall operation of the regulated facility or activity; and
 3. The written authorization is submitted to the Administrator.

3. If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization must be submitted to the Administrator prior to or together with any reports or information, to be signed by the new authorized representative.

S. Noncompliance

1. Cogema Mining, Inc. shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of Chapter 13 of the Wyoming Water Quality Rules and Regulations and is grounds for enforcement action, permit termination, revocation, or modification. Conformed noncompliance resulting in an excursion shall be reported to the Administrator orally within twenty-four (24) hours, and a written submission shall be provided within five (5) days of the time Cogema Mining, Inc. becomes aware of the excursion. The written report shall contain the sections specified in Section K of this permit. Any permit non-compliance constitutes a violation of this permit.
2. The filing of any request by Cogema Mining, Inc. for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

T. Permit Transfer

1. Any transfer of this permit shall be accomplished by the submission of the proper forms for permit transfer to the Administrator. Transfer of this permit must first be approved by the Administrator, and the Director, and no transfer shall be approved unless the proposed permittee agrees to bring any and all non compliance issues into compliance with this permit.
2. Cogema Mining, Inc. is alone responsible for the operation of the facility covered by this permit. Sale of the facility and subsequent operation of this facility by another is a violation of this permit unless a transfer of this permit has first been accomplished.

U. Property Rights

1. This permit does not convey any property rights of any sort, or any exclusive privilege. This permit does not authorize injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

V. Severability

1. Nothing in this permit shall be construed to preclude the institution of any legal action or to relieve Cogema Mining, Inc. from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.
2. The provisions of this permit are severable, and if any provision of the permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

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STATEMENT OF BASIS FOR A UIC PERMIT

I. General information.

A. Permit Number: **00-340**

B. Facilities Covered: Cogema Mining, Inc.; P.O. Box 730; Mills, WY 82644; (307) 234-5019 - ***Christensen Ranch Disposal Wellfield*** in the Sections 5, 7, and 18, Township 44 North, Range 76 West, of the 6th Principal Meridian, Johnson County. This permit adds two additional injection wells to the two previously permitted under UIC 97-407. All wells will inject into the Lance Formation.

C. Class of Facility: 1 Non Hazardous (Under Chapter 13).

II. Application reviewed for compliance with the following regulations. (Indicate yes or no for each section.)

A. Chapter 8 Yes

D. Chapter 12 No

B. Chapter 9 No

E. Chapter 13 Yes

C. Chapter 11 No

F. Chapter 16 No

III. Basis for issuing permit. (Indicate yes or no for each section.)

A. Review of application package indicates proposed facility will be in compliance with applicable regulations identified in Section II.

No

B. Permit based on deviation from applicable regulations in accordance with approved policy statement.

No

IV. Facilities not specifically covered by regulations. (Indicate the section number of the regulations and briefly summarize the regulation.)

NOT Applicable

- V. Application requires review to determine groundwater impacts in accordance with Section 17, Chapter 3. Note that sediment ponds, public water supplies, sewerage systems, and small wastewater systems are exempt from the requirements of Section 17. (Indicate either applicable or not applicable. If not applicable delete all of section VI. from the Statement of Basis.)

Applicable. A groundwater review has been conducted to insure that no groundwater will be impacted by this system.

VI. Documentation of Statement of Basis.

- A. The archives file for this permit will include adequate documentation of all sections of this Statement of Basis.

VII. Applicant and Public Participation

- A. The applicant has been provided with a draft permit prior to the permit being issued.
- B. A Public Notice has been issued with a public notice period starting October 2, 2000 and ending on October 31, 2000 (30 day notice as required by Chapter 16.) This notice was published in the Casper Star Tribune and the Buffalo Bulletin on or before the start of the public comment period.

CERTIFICATION

The issuance of this permit is based upon a review of the application package submitted in accordance with the requirements of Section 5, Chapter 16, Wyoming Water Quality Rules and Regulations. This review was performed by Robert F. Lucht, P.E. and P.G., UIC Program Supervisor, and completed on September 18, 2000. Permit issuance is recommended based upon statements, representations, and procedures presented in the permit application and supporting documents, permit conditions, and the items identified in this "Statement of Basis."

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