

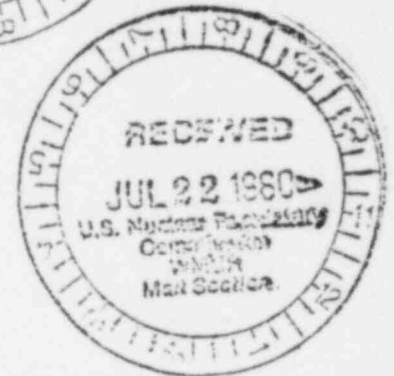
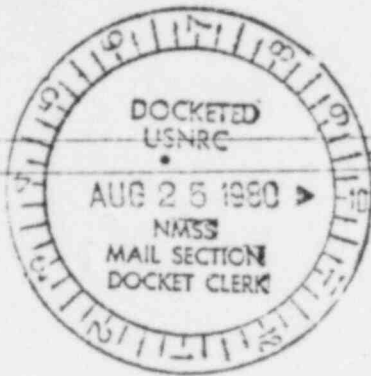
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WM-38

RAILROAD COMMISSION OF TEXAS
SURFACE MINING AND RECLAMATION DIVISION

JOHN H. POERNER, Chairman
JAMES E. (JIM) NUGENT, Commissioner
MACK WALLACE, Commissioner

J. RANDOL (JERRY) HILL
Director



CAPITOL STATION - P. O. DRAWER

AUSTIN, TEXAS 78711

NOTICE

RE: ANACONDA COPPER COMPANY

DOCKET NO. 027

TO ALL PARTIES TO THE PROCEEDING

The Examiner's Report and Proposal for Decision is enclosed for your review.

Specific exceptions to this Report must be filed with the Examiner by no later than Monday, August 18, 1980. Replies to Exceptions will be accepted for twenty (20) days after the date they are filed. Each Party is responsible for mailing or delivering any Exceptions or Replies to the other Parties when delivered to the Examiner.

Following Exceptions and Replies, a date for Commission action will be set and you will be notified.

Persons having questions regarding this matter may contact me at the above address or by telephone at (512) 445-1176.

Issued in Austin, Texas, this 17th day of July, 1980.

Chesley Blevins
Chesley N. Blevins
Legal Examiner

CNB:dw
Enclosure

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RAILROAD COMMISSION OF TEXAS
SURFACE MINING AND RECLAMATION DIVISION

RE: APPLICATION OF ANACONDA
COPPER COMPANY FOR A
SURFACE MINING OPERATION
PERMIT FOR URANIUM

DOCKET NO. 027

EXAMINER'S REPORT
AND
PROPOSAL FOR DECISION

STATEMENT OF EVIDENCE

Pre-hearing Evidence

Anaconda Copper Company, 1400 Bank and Trust Tower, Corpus Christi, Texas 78477, has applied to the Railroad Commission of Texas for authorization to conduct a surface mining operation for uranium ore in McMullen County and for reclamation of the lands affected by its operations as proposed in the permit application. The application was filed along with a \$200 fee pursuant to the "Texas Uranium Surface Mining and Reclamation Act," Title 4, Chapter 131, Natural Resources Code (hereinafter referred to as the Act) and Rule 102(a) of Chapter III of the Rules of the Surface Mining and Reclamation Division of the Railroad Commission (hereinafter referred to as the Rules).

The surface mining operation, identified as the Rhode Ranch Mine Site, is to be located approximately twenty-five (25) miles southwest of George West, Texas, and two (2) miles north of State Highway 624. The applicant initially requested a permit area of approximately 10,031 acres. (At the public hearing the requested permit area was reduced to approximately 8,909 acres.)

The uranium ore is proposed to be extracted using open pit mining methods. The average depth to the ore is 105 feet and the average ore thickness is from four (4) to five (5) feet. The estimated ore production is expected to be approximately 180,000 tons per year.

Presently the proposed permit area is predominantly native and improved pasture. In its reclamation plan, applicant proposed total backfill of the area and a return to pasture. Applicant further proposed to remove, segregate and protect the topsoil during mining; regrade the surface to blend with the surrounding topography after mining; replace the topsoil; and revegetate the area. Postmining land use for the area affected will be native and improved pasture.

Reclamation of the disturbed lands will be contemporaneous with the mining and costs, as estimated by the applicant, will be approximately \$2,000 per acre. Mining is scheduled to begin by mid-1982, with the first ore extracted by early 1983.

The permit application is for a term of ten (10) years, and contained or was amended in subsequent correspondence from the applicant to provide the information required in Section 131.133 of the Act. This information deals with identification of persons interested in the application and the details of the method of mining operation. After the Commission received the application, notice of the permit application was published by the applicant for four (4) consecutive weeks in both the Corpus Christi Caller-Times and The Progress, newspapers of general circulation in McMullen County. The notice contained, among other information, identification of the operation's ownership, where the application was available for public inspection, its permit area boundaries, and notice that the Commission would receive comments on it from interested persons and consider them during its review.

The same notice was mailed by the Commission to all known residents of the property to be mined, all property owners of the proposed permit area and within 500 feet of the boundaries of the permit area, and local governmental bodies, planning agencies, and sewage and water treatment authorities having jurisdiction over or in the locality of the operation. Copies of the application were also provided by the Commission to the Texas Parks and Wildlife Department, Texas Department of Water Resources, Texas General Land Office, Texas Air Control Board, Texas Historical Commission, Texas State Soil and Water Conservation Board, Texas Department

of Health, and the Bureau of Economic Geology. This was done in order to allow those agencies the opportunity to evaluate the application and to notify the Commission of areas of concern.

Simultaneous with the Commission's staff review of the application was the evaluation by the staff of the permit area. The staff conducted a survey of the area proposed to be mined by the applicant to determine if:

- (a) reclamation pursuant to the "Act" was feasible in the permit area;
- (b) the proposed operation would cause significant damage to an important area of historic, cultural or archaeological value or to important natural systems;
- (c) the proposed operation would affect renewable resource lands resulting in a substantial loss or reduction in long-range productivity of a water supply or food or fiber products;
- (d) the proposed operation was located in an area subject to frequent flooding or areas of unstable geology where mining might reasonably be expected to endanger life or property;
- (e) the proposed operation would adversely affect any national park, national monument, national historic landmark, property on the national register of historic places, national forest, national wilderness area, national wildlife refuge, national wild and scenic river area, state park, state wildlife refuge, state historic site, state archaeological landmark, or city or county park;
- (f) the proposed operation would endanger any public road, public building, cemetery, school, church, or similar structure or existing dwelling outside the proposed permit area.

Following this review it was the staff's conclusion that none of the above enumerated concerns existed or would be caused by the proposed operation. This conclusion is evidenced by a report signed by Billy Chovanec and Dean Poth of the Railroad Commission staff on April 15, 1980, concerning the onsite survey.

Following receipt of the comments from the state agencies referred to above, and upon an evaluation of the application by the Commission

staff, the Director of the Surface Mining and Reclamation Division determined that the application warranted a public hearing. A hearing was consequently scheduled and notice of it was mailed by the Commission to each of the people and governmental entities which received the notice of the application. The Commission also published notice of the hearing for three (3) consecutive weeks prior to the hearing date in The Progress, a newspaper of general circulation published in McMullen County, Texas.

Hearing Review

The public hearing was conducted in the McMullen County Courthouse in Tilden, Texas, on June 13, 1980.

Mr. Robert Wilson and Mr. C. Morris Davis with the law firm of McGinnis, Lochridge and Kilgore represented Anaconda Copper Company, with Mr. Wilson directing the presentation of evidence by the applicant. At the request of Mr. Wilson, the Examiner named the parties to the proceeding. Those named were: the applicant, Anaconda Copper Company; the staff of the Railroad Commission Surface Mining and Reclamation Division responsible for reviewing the application; and Mr. R. W. Decker and Mr. Raymond B. Kelly III, attorneys with the law firm of McGown, Godfrey, Decker, McMackin, Shipman and McClane, in their representative capacity for the William E. Scott Foundation and others collectively owning 25/32 of the minerals under a portion of the land in question. At this point the Examiner also made a ruling that the following would be adopted as a part of the official record:

1. the affidavits of publication of newspaper notice that the application had been filed;
2. the affidavit of publication of newspaper notice of the scheduled public hearing;
3. the application of Anaconda Copper Company as filed and amended;
4. the staff comments and proposed permit amendments as amended during testimony by the applicant; and
5. the "Texas Uranium Surface Mining and Reclamation Act" and the

regulations promulgated thereunder.

Generally, the applicant's testimony either tracked or summarized its application. Mr. Wilson opened for the applicant and summarized proposed changes to the staff proposals to make them more clear and more specific. Mr. Spraggins, head of Technical Services for the Surface Mining and Reclamation Division, confirmed that the staff had reviewed the proposed changes and did agree that they were appropriate.

Mr. Wilson then called on Mr. Glen R. Davis, Manager of South Texas Uranium Projects for Anaconda, to briefly describe the proposed mine operation. (To assure a complete record, all of the prepared testimony of the applicant's witnesses was submitted to the Examiner in written form.) His initial testimony centered on the revised permit boundary proposed by Anaconda. Anaconda has decided to delete Section 80 and 467 acres of Section 60 from its permit area. The total area has been reduced from 10,031 acres to 8,909 acres. New maps reflecting the changes have been made a part of the application. Mr. Davis further testified that the average depth of the ore is 105 feet, and total ore depth is not expected to exceed 200 feet. The average thickness is four to five feet. Ore production is expected to be approximately 180,000 tons per year. In addition there will be a mill operation conducted within the permit area in conjunction with the mining operation. In answer to a question from Mr. Wilson, Mr. Davis explained a possible change in the proposed mining plan. He stated that Anaconda originally planned to dewater tailings at the mill, place the tailings in a storage area, use the water decanted as makeup water for the mill, and then truck the tailings back to the pits for burial. In some or all instances Anaconda may now truck the tailings from the mill to the pits, then decant water from them. In that instance, according to Mr. Davis, water from the tailings would be handled like we plan to handle rainfall in the pits, as mill makeup water. Tailings disposed of in the pits will be covered with from 50 to 150 feet overburden. No tailings pond is planned unless the Nuclear Regulatory Commission and the Health Department reject the proposed disposal plan.

The prepared testimony of Mr. Davis stated that an investigation indicated no groundwater in the vicinity of the initial mine and no water wells which could be affected; and no anticipated hydrologic consequences of mining. The testimony also makes it clear that topsoil will be segregated, protected, and replaced. The prepared testimony of Mr. Davis adequately speaks to all of the areas required to be addressed for the record.

Mr. Ed L. Reed, Consulting Hydrologist, emphasized his investigation and findings concerning the specific areas of groundwater, surface water, and tailings disposal. His findings supported the more general statements of Mr. Davis. With regard specifically to tailings disposal, Mr. Reed found that the proposed method of disposal would protect ground and surface water from all material risks of pollution and will not now or in the future present a hazard to health or safety. He also emphasized that all water which may come into contact with the working area of the mine will be collected and used for mill makeup water. None will be discharged or allowed to drain into any natural drainageway.

The final witness for the applicant was Mr. E. Douglas Sethness, Jr., Manager of the Austin office of Camp Dresser & McKee, Inc. His firm investigated the ecological characteristics of the project site within the framework of five disciplines--air quality, surface water quality, vegetation, soils, and wildlife ecology. His prepared testimony described the project location--approximately 25 miles southwest of George West, Texas, and two miles north of State Highway 624 in McMullen County. There are no schools, churches or other population centers within several miles of the project. The closest residence is six to seven miles northeast of the proposed permit area. Rangeland makes up some 78% of the land use in McMullen County. The land in the permit area is primarily pasture for cattle grazing. There will be no public access to the site. Mr. Sethness concluded his prepared testimony by stating that the land condition after mining should present no actual or probable health or safety hazard, and that the revegetation program will restore the land to a substantially beneficial condition.

In answer to one question from Mr. Bill Sibley who attended the hearing, Mr. Davis stated that tailings would normally not be stored more than about 30 days prior to disposal. Any storage area will be protected to prevent runoff or air contamination from the tailings.

No additional persons offered testimony. The record was then closed and the hearing adjourned by the Examiner.

The "Texas Uranium Surface Mining and Reclamation Act," as well as the Substantive Rules of the Surface Mining and Reclamation Division have set out guidelines and minimal reclamation standards which must be complied with by the surface mining operator. Section 131.002 of the Act sets out the policies declared by the Legislature. Three of those policies are as follows: "(1) extraction of minerals by surface mining operations is a basic and essential activity making an important contribution to the economic well-being of the state and nation;" and "(2) proper reclamation of surface mined land is necessary to prevent undesirable land and water conditions that would be detrimental to the general welfare, health, safety, and property rights of citizens of this State." The Legislature also recognized that "(4) it is not always possible to extract minerals required by our society without disturbing the surface of the earth and producing waste materials, and the very character of certain types of surface mining operations occasionally precludes complete restoration of the affected lands to the original condition." The following purposes of the Act are set out in Section 131.003: "To prevent the adverse affects to society and the environment resulting from unregulated surface mining; ...to assure that surface mining operations are so conducted as to prevent unreasonable degradation to land and water resources; to assure that reclamation of all surface mined lands is accomplished as contemporaneously as practicable with the surface mining, recognizing that the extraction of minerals by responsible mining operations is an essential and beneficial economic activity."

Cognizant of these policies and of the purposes of the Act, the Hearings Examiner thoroughly reviewed the extensive testimony and evidence in the record prior to formulating recommendations.

I am of the opinion that the applicant's proposed mining and reclamation plan will restore the affected land to a substantially beneficial condition as it has been changed and amended by the Railroad Commission staff and as included in the attached "permit provisions" being proposed by this Examiner.

Findings of Fact

Based on all the evidence and testimony in the record, the following Findings of Fact are made.

1. Included in the three (3) copies of the permit application of Anaconda Copper Company submitted to the Commission was, among other information, the following:

- (a) the name, address, ownership, and management officers of the permit applicant and affiliated persons engaged in surface mining;
- (b) legal and equitable interests of record, when reasonably ascertainable, in the surface and mineral estates of the permit area and in the surface estate of land located within 500 feet of the permit area;
- (c) persons residing on the property at the time of the application;
- (d) current or previous surface mining permits held by the applicant, including any revocations, suspensions, or bond forfeitures;
- (e) the type and method of surface mining operation, the engineering techniques, and the equipment that is proposed to be used, including mining schedules, the nature and expected amount of overburden to be removed, the depth of excavations, a description of the affected land and permit area, the results of any test borings, test pits, or core samplings which have been gathered from the permit area, and the anticipated hydrologic consequences of the mining operation;

- (f) the applicant's legal right to surface mine the affected land; and
- (g) a reclamation plan which provided the information listed in Section 10(a) of the "Texas Uranium Surface Mining and Reclamation Act."

2. Copies of the permit application, as well as additional information provided to the Railroad Commission staff at the request of the Railroad Commission staff, was provided to the Texas Parks and Wildlife Department, Texas Department of Water Resources, Texas General Land Office, Texas Air Control Board, Texas Historical Commission, Texas State Soil and Water Conservation Board, Bureau of Economic Geology, and the Texas Department of Health Resources for their review and comments on the application.

3. The permit application was filed in the offices of the County Clerk of McMullen County soon after it was filed in the office of the Commission.

4. Proper notice of the permit application was published in The Progress on March 5, 12, 19, and 26, 1980; the Corpus Christi Caller-Times on March 6, 13, 20, and 27, 1980; and notice was mailed to residents within the permit area and property owners located in the permit area and within 500 feet of the permit area as well as various local governmental entities, planning agencies, and sewage and water treatment authorities.

5. Proper notice of the public hearing was published on May 21, 28, and June 4, 1980 in The Progress of George West, Texas. The Progress is a newspaper of general circulation in McMullen County. The notice was also mailed to the applicant, all persons receiving notice of the permit application by mail, and all persons expressing an interest in the application to the Commission.

6. The applicant, through either oral testimony, written testimony, or the permit application and amendments to it, presented evidence showing provision for each of the reclamation requirements contained in Section 131.102 of the "Texas Uranium Surface Mining and Reclamation Act" and Chapter II, Section 6, Rule 251 of the Rules of the Surface

Mining and Reclamation Division of the Railroad Commission.

7. A survey of the proposed permit area was conducted by the staff of the Railroad Commission and no areas were found to be unsuitable for surface mining operations.

8. No evidence has been received disputing the Railroad Commission staff survey finding that the proposed permit area is not unsuitable for surface mining activities.

9. Postmining land use for the area affected will be native and improved pasture.

10. The method of tailings disposal proposed by Anaconda will protect both ground and surface water from all material risks of pollution, and will not now or in the future present a hazard to health or safety.

11. Anaconda Copper Company's proposed mining and reclamation plan, with the addition of the attached "permit provisions," will effectively control dust, water diminution or pollution, and any possible air pollution problems which might be associated with the mining activity.

12. The attached proposed "permit provisions" will, if complied with, assure that this surface mining operation will be conducted so as to prevent unreasonable degradation to land and water resources, assure that reclamation of all surface-mined land is accomplished as contemporaneously as practicable with the surface mining, and that the land affected will be restored to the same condition as the land enjoyed prior to the mining or some substantially beneficial condition.

Conclusions of Law

Based on all the Findings of Fact, the following Conclusions of Law are made:

1. A complete permit application was submitted to the Railroad Commission of Texas by Anaconda Copper Company in compliance with Section 131.132, 131.133, and 131.101(a) of the "Texas Uranium Surface Mining and Reclamation Act."

2. Notice of the permit application and of the public hearing to consider the permit application was properly circulated in accordance

with the requirements of Section 131.159 of the "Texas Uranium Surface Mining and Reclamation Act."

3. The permit application has been properly circulated in accordance with the requirements of Section 131.138 and 131.139 of the "Texas Uranium Surface Mining and Reclamation Act."

4. The proposed "permit provisions" prepared by the Examiner comply with each of the reclamation standards provided in Section 131.102 of the "Texas Uranium Surface Mining and Reclamation Act" and in Chapter III, Section 6, Rule 251 of the Rules of the Surface Mining and Reclamation Division of the Railroad Commission.

5. A survey, pursuant to 131.036 of the "Texas Uranium Surface Mining and Reclamation Act," was properly conducted.

6. There has been full compliance with all applicable provisions of the "Texas Uranium Surface Mining and Reclamation Act," the "Administrative Procedure and Texas Register Act," and the Rules of the Surface Mining and Reclamation Division of the Railroad Commission of Texas concerning this application for a surface mining permit.

7. The terms and conditions of the attached proposed "permit provisions" meet the statutory requirements for approval set forth in Section 131.140 of the "Texas Uranium Surface Mining and Reclamation Act," and comply with the requirements of all applicable state laws, regulations, and policies of the Surface Mining and Reclamation Division of the Railroad Commission.

8. Adopting the attached "permit provisions" as proposed would comply with the policy and purposes of the State as set forth in Section 131.002 and 131.003 of the "Texas Uranium Surface Mining and Reclamation Act."

RECOMMENDATIONS

Based on all the evidence in the record, the Examiner has made the enumerated Findings of Fact and Conclusions of Law with respect to this application by Anaconda Copper Company (Rhode Ranch Mine) for a uranium surface mining operation permit. The Examiner therefore recommends that

such Findings of Fact and Conclusions of Law be adopted by the Railroad Commission of Texas; that the Commission adopt the attached proposed "permit provisions"; and approve the application for a surface mining operation permit.

Chester N. Blavins

Chester N. Blavins
Legal Examiner
Surface Mining and Reclamation Division

ANACONDA COPPER COMPANY
RHODE RANCH--DOCKET NO. 027

PERMIT PROVISIONS

1. The definitions and provisions contained in the "Texas Uranium Surface Mining and Reclamation Act" and the Rules of Chapter II and III of the "Rules of the Surface Mining and Reclamation Division" of the Railroad Commission of Texas and any amendment to them, shall be applied in interpreting any provision of this permit.
2. The permittee shall comply with each of the standards provided for in Section 131.302 of the Act, Rule 251 of Chapter III of the Rules and any amendment to either of these documents in addition to each proposal provided in the permit application declared administratively complete on February 28, 1980, unless otherwise provided for in the following provisions.
3. The conditions of this permit are severable and if any provision of this permit, or the application of any provision of this permit to any circumstances is held invalid, the application of such provision to other circumstances and the remainder of this permit, shall not be affected thereby.
4. This permit expires 10 years from the date of its issuance.
5. Violations which create an imminent danger to the health or safety of the public or which may cause a significant imminent harm to land, air or water resources shall be reported to the Regional Director of the Surface Mining and Reclamation Division located in Tyler, Texas, within 24 hours of the violation. A written report shall then be submitted to the Director of the Surface Mining and Reclamation Division within 30 days of the violations, stating the cause of the violation and the action taken to rectify its affects to prevent a recurrence.
6. An archaeological survey of the disturbed area shall be conducted in addition to the survey submitted with the application.
7. The permittee shall comply with the Texas Water Code and all promulgated rules of the Texas Department of Water Resources.
8. The permittee shall comply with the Texas Department of Health regulations.
9. Prior to creating any cut, pursuant to paragraph (c) of Rule 251, Chapter III of the Rules, the Director shall be notified of the intent to mine within the area and his approval given for the method proposed to be used, if this method is a variation in the mine plan as described in the permit application.
10. The permit holder shall maintain records which shall be available to the Surface Mining and Reclamation Division at all reasonable times showing, on a monthly basis:
 - (a) the number and location of mined acres;
 - (b) the number and location of acres under reclamation;
 - (c) the number and location of acres upon which reclamation has been completed; and

(d) the results of measurements, taken on a monthly basis, from any monitoring equipment installed pursuant to orders of the Surface Mining and Reclamation Division of the Railroad Commission of Texas or any other state agency.

11. Ore pads in the mine area shall be scraped and the scrapings shall be wasted and buried in the pit following final ore shipment from the site prior to the point when the Director of the Surface Mining and Reclamation Division declares the vegetation to be successfully established.

12. No toxic- or acid-forming spoil shall be left within four feet of the surface as a result of uranium mining activity. Toxic spoil, including the exposed strata immediately above and below the excavated ore zone, shall be compacted in such a manner as to prevent erosion of the four foot cover. Compaction shall not be required where accumulated ground water makes compaction impractical. This provision shall include any toxic- or acid-forming spoil in the exposed strata, ore zone, scrapings from the ore pad, scraped ore pad, stockpiled protore, and lignite directly associated with the ore zone.

13. Dikes, berms, and ditches utilized to divert surface water from the mining area shall be of sufficient size and construction to control flood waters of a 10-year, 24-hour precipitation event. The permittee shall utilize the best available technology to insure that diverted surface water runoff from the permit area shall not create excessive erosion at the point(s) where it re-enters the natural drainage.

14. The average maximum height of overburden piles shall be approximately 50 feet, except where placed against a hill not disturbed by surface mining activities.

15. During mining, protore shall be stockpiled and placed in such a way that runoff shall be directed into the pit.

16. Ore pads in the mine area shall be lined with a material such as but not limited to compacted clay, compacted caliche, a plastic liner or any combination thereof.

17. The permittee shall notify residents within 2,500 feet from the blast site of the date, time, and location of blasting operations. The Division field office shall be notified of schedule and sequence prior to initiating blasting. The maximum peak particle velocity of the ground motion in any direction shall not exceed one inch per second at the immediate location of any useable structure. This particle velocity may be determined by seismograph recordings or the equation of determining the maximum weight of explosives that can be detonated within any 8 M.S. (millisecond):

$$W = (D/60)^2$$

W = maximum amount of explosives in pounds
D = the distance in feet to nearest structure

Records of blasting shall be kept by the operator for the duration of the permit. Records shall contain date, location, time of blasting, and weight determination of charge according to the formula above.

18. If horizons containing exchangeable sodium percentages greater than 12 are saved for topsoiling, they should be identified and treated with gypsum to improve their physical and chemical properties.

19. Berms, dikes, and ditches shall be stabilized and vegetated with a temporary cover to reduce erosion within six months after construction, unless a written variance or exception is issued by the Director of the Surface Mining and Reclamation Division. Natural revegetation is not adequate to protect the topsoil once it is disturbed.

20. Diversion berms constructed with topsoil shall have a waterside slope no steeper than 4(h):1(v). Major excavated diversions and channels shall have side slopes no steeper than 3(h):1(v).
21. Overburden piles, stockpiled topsoil, mined backfilled sections, and all other disturbed areas shall be sloped and, if the vegetation is sparse, shall be seeded to reduce erosion if they will be inactive for more than six months while mining proceeds, unless a variance is issued by the Surface Mining and Reclamation Division.
22. Before permanent vegetation is established, the permittee shall minimize wind blown dust from pits, topsoil, overburden piles and haul roads.
23. Backfilling, grading and initial planting of permanent vegetative cover shall be completed within one year after cessation of mining within each pit segment. When conditions exist which make this impracticable, the permit holder shall make a request in writing to the Director that the period be extended.
24. The topsoiled overburden shall be scarified on the contour at a sufficient depth to break up any compacted zones and insure bonding of the interface between the topsoil and overburden.
25. If the reclaimed areas are to be hayed, the permittee shall develop a haying plan in cooperation with the landowner and local soil and water conservation district. The plan shall be submitted to the Director prior to haying the reclaimed land.
26. The permittee shall contact the Director of the Surface Mining and Reclamation Division within 72 hours after an aquifer or substantial perched water table is encountered in overburden removal.
27. The following baseline parameters shall be established:
 - (a) The permittee shall sample each monitor well and submit the results of the analyses, prior to initiating mining, for pH, arsenic, molybdenum, selenium, chlorides, sulfates, total dissolved solids, uranium, radium 226, and water levels.
 - (b) The permittee shall sample aquifers and/or substantial perched water tables which are encountered in overburden removal for: pH, arsenic, molybdenum, selenium, and total dissolved solids.
28. On a quarterly basis, until released from the performance bond, the permittee shall submit to the Director of the Surface Mining and Reclamation Division the results of the following analyses:
 - (a) pit water--pH, arsenic, molybdenum, selenium, uranium, total dissolved solids, and electrical conductance.
 - (b) discharge from last sediment pond in the chain of sediment ponds or from the last sediment pond itself, if no discharge is being made--pH, arsenic, molybdenum, selenium, chlorides, sulfates, total dissolved solids, uranium, total suspended solids, and electrical conductance.
 - (c) monitoring wells--pH, arsenic, molybdenum, selenium, uranium, chlorides, sulfates, total dissolved solids, and water levels.
29. On an annual basis, until released from the performance bond, the permittee shall submit to the Director of the Surface Mining and Reclamation Division the results of the following analyses:
 - (a) pit water--radium 226; and
 - (b) monitor wells--radium 226.

30. Prior to initiation of mining, the permittee shall select the number and location of monitor wells in cooperation with personnel from the Surface Mining and Reclamation Division.

31. Waters to be discharged must meet the following parameters:

(a) Hazardous metal limits for inland water as defined in the Texas Department of Water Resources Rule No. 156.19.15.002 or through baseline data as established.

(b) Effluent limits are:

	Maximum for any one day (mg/l)	Average of daily values* for 30 consecutive days shall not exceed (mg/l)
Total Suspended Solids	30	20
Molybdenum	2.0 or baseline data, whichever is greater	1.0 or baseline data, whichever is greater
pH--within the range of:	6.0 to 9.0	6.0 to 9.0
Zinc	1.0	0.5
Uranium	4.0	2.0

*The average of monthly values shall be determined by averaging only those months in which a discharge occurred.

(c) Discharges of water, other than rainfall runoff, may be made upon:

(1) 24 hour notice of proposed discharge to the Railroad Commission Surface Mining and Reclamation Division, prior to discharge, including:

(a) Submittal of sample analyses results including pH, total dissolved solids, molybdenum, arsenic, selenium, chloride, sulfate, uranium, and electrical conductance of the waters to be discharged.

(b) Proposed quantity, rate, and duration of discharge.

(c) Description of the receiving stream or pond indicated on a map of the area and any anticipated adverse impact to any receiving stream or landowners downstream.

(2) A report to the Director within seven (7) days of termination of the discharge to include:

(a) Sample results of weekly sampling of the discharge including the parameters included in Section (c)(1)(a) of this Provision.

(b) Sample results (Section (c)(1)(a)) of the receiving water within 24 hours of cessation of the discharge.

(c) Actual quantity, rate, and duration of discharge and its effect on the receiving stream.

(d) The permittee shall comply with the "Texas Regulation for the Control of Radiation, Appendix 21A, Table II, Column 2" and shall forward a copy of the results of any radiological analyses performed pursuant to these regulations to the Director of the Surface Mining and Reclamation Division.

32. The permittee shall submit a plan for sampling the overburden prior to replacing topsoil. The sampling plan shall be based on standard soil/overburden sampling procedures and shall be representative of the overburden to be replaced near the surface. The composite samples shall be analyzed for the following parameters:

- (a) saturated paste extract: pH, salinity, Ca, Mg, Na, K, CO₃, SO₄, Cl;
- (b) total: arsenic, molybdenum, selenium, and copper;
- (c) pyritic sulfur; and
- (d) each sample: texture (USDA-SCS procedures).

Sampling pursuant to the plan shall be done prior to topsoiling. The analyses results, sampling procedure, and a map indicating the area represented by each sample shall be submitted to the Director of the Surface Mining and Reclamation Division.

33. The permittee shall submit a plan for collecting on a biennial schedule, composite soil/overburden samples after the permanent vegetation has been established. The sample shall be analyzed for the following parameters:

- (a) saturated paste extract: pH, salinity, Ca, Mg, Na, K, CO₃, SO₄, Cl;
- (b) total: arsenic, molybdenum, selenium, and copper;
- (c) each sample: texture; and
- (d) standard fertilizer soil test procedures: nitrogen, phosphorous, potassium, and trace elements (Zn, Fe, Mn).

The analyses results, fertilizer application rates, and a map indicating the area represented by each sample shall be submitted to the Director of the Surface Mining and Reclamation Division with the permittee's annual report. With adequate justification portions of this provision may be suspended upon approval by the Director of the Surface Mining and Reclamation Division.

34. The results of the annual analyses of topsoils included in provision 33 and a determination of successful vegetative stabilization of the reclaimed areas by the Director of the Surface Mining and Reclamation Division shall be used as criteria to release the permittee's performance bond. If the topsoil analyses results significantly exceed baseline levels of native soils, the permittee shall analyze the vegetation to determine if toxic levels exist in the forage. If toxic levels are present in the vegetation, then the permittee shall notify the landowner in writing prior to release of the performance bond.

35. The ore and tailings storage areas identified on drawing No. RR-E5 shall be constructed to prevent contamination of the subsurface by providing the following or equivalent protection:

- (a) two feet of clay material graded to drain into collection sumps which are sealed to prevent seepage;
- (b) clay materials compacted to achieve a permeability no greater than 1×10^{-6} cm/sec.

The permittee shall submit plans and specifications detailing construction.

36. The holding, collecting, and plant runoff ponds identified in drawing No. RR-E5 shall be constructed to prevent seepage by providing the following or equivalent protection:

- (a) a lining with competent clay material at least 18 inches in thickness compacted to achieve a permeability of 1×10^{-7} cm/sec or less;
- (b) collecting pond berms no steeper than 3(h):1(v); and
- (c) collecting pond berms keyed into appropriate subsurface strata to further reduce seepage.

The permittee shall provide plans and specifications detailing construction.

- 37. The permittee shall provide plans and specifications detailing the construction of the plant process area fluid containment and drainage system.
- 38. The permittee shall comply with all rules and regulations of the Texas Department of Health regarding decommissioning of the uranium mill. The solid contents and liners of the collecting, holding, and plant runoff ponds shall be disposed with tailings in the mined out pit.
- 39. Tailings disposal shall comply with all applicable rules and regulations of the Texas Department of Health. In addition, the permittee shall comply with the following:
 - (a) final disposal of all tailings shall be encapsulation within impervious clay having a permeability of 1×10^{-7} cm/sec or less and a minimum thickness of three feet;
 - (b) any clay sidewalls of the capsule described in part (a) of this provision shall be keyed into the impervious clay below the ore zone a minimum of two feet;
 - (c) sidewall liners of the clay capsule shall overlap exposed impervious strata a minimum of three feet;
 - (d) duplicate clay samples for comparison shall be submitted upon request of the Surface Mining and Reclamation Division;
 - (e) the final moisture of the disposed tailings shall be less than saturation; and
 - (f) detailed operational plans for the dewatering of the tailings shall be submitted to the Director of Surface Mining and Reclamation Division prior to tailings disposal for determination of compliance with the provisions of this permit and the statute, rules and regulations of the Commission governing operations under this permit.

- (a) a lining with competent clay material at least 18 inches in thickness compacted to achieve a permeability of 1×10^{-7} cm/sec or less;
- (b) collecting pond berms no steeper than 3(h):1(v); and
- (c) collecting pond berms keyed into appropriate subsurface strata to further reduce seepage.

The permittee shall provide plans and specifications detailing construction.

- 37. The permittee shall provide plans and specifications detailing the construction of the plant process area fluid containment and drainage system.
- 38. The permittee shall comply with all rules and regulations of the Texas Department of Health regarding decommissioning of the uranium mill. The solid contents and liners of the collecting, holding, and plant runoff ponds shall be disposed with tailings in the mined out pit.
- 39. Tailings disposal shall comply with all applicable rules and regulations of the Texas Department of Health. In addition, the permittee shall comply with the following:
 - (a) final disposal of all tailings shall be encapsulation within impervious clay having a permeability of 1×10^{-7} cm/sec or less and a minimum thickness of three feet;
 - (b) any clay sidewalls of the capsule described in part (a) of this provision shall be keyed into the impervious clay below the ore zone a minimum of two feet;
 - (c) sidewall liners of the clay capsule shall overlap exposed impervious strata a minimum of three feet;
 - (d) duplicate clay samples for comparison shall be submitted upon request of the Surface Mining and Reclamation Division;
 - (e) the final moisture of the disposed tailings shall be less than saturation; and
 - (f) detailed operational plans for the dewatering of the tailings shall be submitted to the Director of Surface Mining and Reclamation Division prior to tailings disposal for determination of compliance with the provisions of this permit and the statute, rules and regulations of the Commission governing operations under this permit.