

Department of Agriculture and Natural Resources
Minerals and Mining Program
523 East Capitol Avenue
Pierre, South Dakota 57501-3182
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LARGE SCALE MINING/MILLING PERMIT
Pursuant to SDCL 45-6B and ARSD 74:29

Relating to The Extraction and Processing of Minerals in
Operations Affecting More Than 10 Acres and/or
Removing over 25,000 Tons Per Year or For Operations
Utilizing Cyanide Leaching or Other Chemical or Biological
Leaching Agents

Operator's name:

General office address:

Telephone:

Local mailing address:

Telephone:

Resident agent (if out-of-state corporation):

Resident agent address:

Resident agent telephone:

Legal description of affected land:

County:

Name and address of surface owner:

Name and address of mineral owner:

Minerals to be extracted or milled, or both:

Proposed starting date:

Proposed completion date:

Size of area (acres) to be worked at any one time:

Estimated working days per year:

Estimated tons of ore per year:

Estimated overburden/waste tons per year:

Estimated total tonnage per year:

Include a copy of your source of legal right to enter and initiate operations: ___ Lease ___ Letter ___ USFS Permit

Include a copy of your source of legal right to dispose of tailings: ___ Lease ___ Letter ___ USFS Permit

INSTRUCTIONS:

Please reference SDCL 45-6B and ARSD 74:29. This large scale mining/milling permit must be accompanied by:

1. A narrative description of the methods of mining and milling to be employed per Section 6(8).
2. A reclamation plan pursuant to Section 7.
3. A map of the affected area pursuant to Section 10.
4. A fee of \$1,000 payable to the Department of Agriculture and Natural Resources pursuant to Section 14. For precious metals, coal, or uranium, a fee of \$50,000 payable to the Department of Agriculture and Natural Resources is required.
5. A map clearly depicting all surface and mineral owners of the affected land pursuant to Section 10 and ARSD 74:29:02:03.
6. Proof of compliance with all local and county zoning ordinance requirements pursuant to Section 4 and ARSD 74:29:02:02.

Before a hearing on this large scale mining/milling permit can be conducted by the SD Board of Minerals and Environment, the operator must submit the following:

1. Certified mail receipts confirming mailing of notice to all surface owners and lessees pursuant to Section 17.
2. A copy of the affidavit of publication of notice pursuant to Section 16.
3. Proof of filing a copy of the large scale mining/milling permit with the Register of Deeds pursuant to Section 15.
4. A surety in an amount to be determined by the department pursuant to Section 20.
5. A copy of instruments of consultation from all surface landowners, if different than the owner of the minerals, including written receipt of the operating and reclamation plans pursuant to Section 12 and 13.

Applicant affirms that the mining or milling will be conducted pursuant to SDCL 45-6B or any regulations promulgated thereunder, that he will grant access to the SD Board of Minerals and Environment or its agents to the area under this large scale mining/milling permit from the date of application and during the life of the permit as necessary to assure compliance with SDCL 45-6B.

I declare and affirm under the penalties of perjury that this claim (petition, application, information) has been examined by me, and to the best of my knowledge and belief, is in all things true and correct.

Signature Date: _____

Title: _____

STATE OF _____

COUNTY OF _____

On this _____ day of _____, 20_____, before me personally appeared _____, who acknowledged himself to be the _____ (Title) for _____ and that he is authorized to execute the Large Scale Mining/Milling Permit for the purposes contained therein. (Operator)

Notary Public My Commission Expires: _____

SEAL

FOR DEPARTMENT USE ONLY

DATE APPROVED: BOND AMOUNT: PERMIT NUMBER: _____
Chairman, SD Board of Minerals & Environment

**LARGE SCALE MINING/MILLING PERMIT
OPERATING & RECLAMATION PLAN GUIDELINES**
(Include with the permit application)

These guidelines are intended to more fully explain the items listed under "Instructions" on the Large Scale Mining/Milling Permit application. In preparing the Operating and Reclamation Plan for the large scale mining/milling permit, please address each item, in detail, referring to the applicable sections of the statutes (SDCL 45-6B) and the accompanying regulations (ARSD 74:29). The regulations further define the statutes, give guidelines in developing operating and reclamation plans, and define the permit review procedure to be followed by the department. The applicable statutes and regulations have been listed in each item below to help you indicate, pursuant to ARSD 74:29:02:01, which sections of the large scale mining/milling permit application fulfill the statutory application requirements and describe how the information meets those requirements.

Operating Plan

Describe in detail the proposed method of mining and/or milling techniques to be employed (ARSD 74:29:02:04(1)). The description shall include, but is not limited to:

- Contour basis for mining, including a narrative description of, and plan view maps depicting the premining contours and proposed postmining topography (SDCL 45-6B-6(8)(a) and ARSD 74:29:02:04(2)). The maps are required to conform to the criteria listed in ARSD 74:29:02:12.
- A narrative description of the proposed depth to which and the direction in which mining will proceed, including representative cross-sections depicting the premining and proposed postmining land surface (SDCL 45-6B-6(8)(b) and ARSD 74:29:02:04(3)).
- A narrative description of the proposed disposition of mine spoil and tailings, including a map depicting the proposed locations of dams, dikes, diversion canals, reservoirs, tailings dams, tailings ponds, tailings disposal sites, waste dumps, ore stockpiles, heap leach pads, or other mine spoil material and a stability analysis for all critical earth structures (SDCL 45-6B-6(8)(c), SDCL 45-6B-7(10), ARSD 74:29:02:04(4) and ARSD 74:29:02:04(5)). The map is required to conform to the criteria listed in ARSD 74:29:02:12.
- A narrative description of the methods of blasting and control, including a description of the proposed blast procedures and a proposed program for mitigating resulting fugitive dust, noise, and potential structural or stability damage outside the permit area (SDCL 45-6B-6(8)(d) and ARSD 74:29:02:04(6)).
- An accurate map which identifies the area which corresponds with the application, including the area to be mined, the area of affected land, the proposed permit boundary, and if applicable, the area proposed for tailings disposal. The map is required to be drawn to a scale of not more than one to twenty-five thousand and conform to the criteria listed in ARSD 74:29:02:12, (SDCL 45-6B-10(1), SDCL 45-6B-10(3), SDCL 45-6B-10(5)).
- An accurate map showing the name and location of all domestic and commercial water wells, creeks, roads, buildings, oil and gas wells and pipelines, and power and communication lines within the affected land and within 200 feet of the proposed mine permit boundary. The map is required to be drawn to a scale of not more than one to twenty-five thousand and conform to the criteria listed in ARSD 74:29:02:12 (SDCL 45-6B-10(4)).
- A narrative description demonstrating that the mine permit application complies with the requirements of state mining law and all applicable local, state, and federal laws as listed in each section of SDCL 45-6B-32.
- A narrative description demonstrating that the mining operation will not be conducted on unsuitable land as listed in SDCL 45-6B-7(5) and each section of SDCL 45-6B-33. In addressing SDCL 45-6B-7(5) and SDCL 45-6B-33(3), please refer to the Department of Agriculture and Natural Resources special, exceptional, critical, or unique determination issued prior to submittal of the large scale mine permit application.
- A narrative description on how the adverse impacts listed under ARSD 74:29:07:02 will be minimized during the mining operation.

Reclamation Plan

Describe in detail how the intended reclamation methods outlined in the reclamation plan will be implemented to meet the reclamation standards in SDCL 45-6B, ARSD 74:29:02, and ARSD 74:29:05 through ARSD 74:29:08. This description shall include, but is not limited to, restoration of the natural vegetation, wildlife, water, air, and soil:

- Previously Mined Land (SDCL 45-6B-8, SDCL 45-6B-9, and ARSD 74:29:07:17):

Identify any previous surface mining disturbance incurred prior to July 1, 1971 and any previous underground mining disturbance incurred prior to July 1, 1980 which will not be disturbed by the area of affected land. Reclamation of these areas is not required to be addressed in the reclamation plan. Also, identify any underground mine openings and workings which will be intercepted by surface mining activities. These openings and workings are required to be sealed during reclamation.

- Grading (SDCL 45-6B-37, ARSD 74:29:07:03, and ARSD 74:29:07:04):

Describe how the affected land will be regraded after mining so as to create a final topography appropriate to the proposed reclaimed land use selected. Indicate how and when grading will occur. Also, indicate if any backfilling will occur and how this will be accomplished. If backfilling is unfeasible, please indicate why it is unfeasible.

- Refuse Disposal (SDCL 45-6B-38, ARSD 74:29:07:05, and ARSD 74:29:07:13):

Describe how you intend to keep the mine area clean, orderly, and free of refuse. Please indicate how and where you intend to safely dispose of general trash, abandoned equipment, used equipment parts, oversize rock, reject materials derived from crushers or wash plants, and mill tailings. Also, indicate how you intend to dismantle and remove any buildings and structures if they will not be used as part of the reclamation plan.

- Revegetation (SDCL 45-6B-39, ARSD 74:29:02:10, and ARSD 74:29:07:06):

Describe the process which will be involved in revegetating the affected land after mining. A seed mixture developed in consultation with the local conservation district and the landowner (and the Department of Game, Fish, and Parks if wildlife habitat is a postmine land use) is required. The local conservation district will also recommend planting seasons and methods, fertilization needs, mulching, and watering provisions necessary to attain a suitable vegetative cover as part of its seed mix recommendation.

- Topsoil Salvage (SDCL 45-6B-7(11), SDCL 45-6B-40, and ARSD 74:29:07:07):

Describe how overburden and topsoil is to be removed, stored, and protected from wind and water erosion during storage and how topsoil stockpiles will be identified. Also, please describe how overburden and topsoil will be replaced, including a timetable of when it will be replaced. If topsoil is not replaced on reclaimed backfill areas within a short time after mining, a vegetative cover should be established over the pile for stabilization. The local conservation district office can assist you in developing a quick cover seed mixture for all topsoil storage piles.

- Hydrologic Balance (SDCL 45-6B-41, ARSD 74:29:02:11, ARSD 74:29:07:08 through ARSD 74:29:07:12, and ARSD 74:29:07:27):

Describe the mining operation in relation to the ground and surface water features in the region. Will mining be conducted below the ground water table or within a creek bed? What is the depth of the ground water and/or the nearest well? Where will mining take place in relation to any streams, lakes, ponds, springs, or wells? Will any surface runoff or streams need to be diverted around the operation? Will the operation require the use of water and/or chemicals? Will any ponds or dams be required for the operation? Describe how potential adverse impacts (sedimentation, chemical pollution, dewatering, etc.) to these features will be minimized during mining and reclamation.

- Slides, Subsidence, or Damage Protection, Fencing (SDCL 45-6B-42 and ARSD 74:29:07:16):

Describe how you intend to minimize hazards from slides or subsidence. Note that all highwalls must be reduced to the natural angle of repose upon abandonment. Describe how the highwall will be posted and fenced during the operation. If highwall reduction is unfeasible, adequate fencing may be prescribed.

- Spoil Piles, Weeds (SDCL 45-6B-43, ARSD 74:29:07:14, and ARSD 74:29:07:15):

Describe how you intend to stabilize the affected land (including spoil piles, tailings piles, fines from crushers or wash plants, oversize, etc.) so as to control weeds, erosion, and air and water pollution. Describe how noxious and other weeds will be controlled during the mining and reclamation phases of activity.

- Landowner Consultation (SDCL 45-6B-12, SDCL 45-6B-44 and ARSD 74:29:06:01):

Before a mine permit application is submitted, the operator, Department of Agriculture and Natural Resources, and the surface owner are required to confer on and determine the postmining land use of the affected land. If possible, all adjacent landowners shall also be consulted during development of the reclamation plan. The operator is required to submit an instrument of consultation with the surface owner granting permission to enter and commence the operation and containing written receipt of the operating and reclamation plan. Also, the operator shall submit consultation with the adjacent landowners containing written receipt of the reclamation plan.

- Reclamation Choices, Operator Requirements (SDCL 45-6B-7(1), SDCL 45-6B-45, ARSD 74:29:06:02 through 05, ARSD 74:29:07:01, and ARSD 74:29:07:18 through ARSD 74:29:07:26):

These statutes and supporting regulations set forth certain reclamation requirements for the operator depending upon what final reclamation type (forest, rangeland, crops, wildlife habitat, recreation, industry, homesites, future mining) is selected. Under SDCL 45-6B-7(1), please provide a narrative description of the reclamation type selected, the reason for choosing the reclamation type, and the acreage accorded to each reclamation type. Describe how you intend to comply with the requirements set forth in the applicable sections of SDCL 45-6B-45 and ARSD 74:29:07:18 through ARSD 74:29:07:26 for each reclamation type selected. Pursuant to ARSD 74:29:06:02, please address all sections of this regulation in developing the reclamation type in your reclamation plan. In ARSD 74:29:06:03 through 05, please note special requirements for industrial, homesite, or future mineral exploration land uses.

- Reclamation Timetable, Planting not Required under Certain Conditions (SDCL 45-6B-46):

This section states that all reclamation must be completed by the operator "with reasonable diligence" within a five-year period. It also considers certain cases where reclamation may be delayed if just cause is shown.

- Concurrent and Interim Reclamation (ARSD 74:29:08)

ARSD 74:20:08 requires that concurrent and interim reclamation be conducted along with final reclamation. Please submit detailed plans and timetables for interim and concurrent reclamation.

- Postclosure Plan (SDCL 45-6B-5(5) and SDCL 45-6B-91):

This plan shall include, at a minimum, a description of the activities, methods, procedures, and processes necessary to ensure the continued effectiveness of reclamation and compliance with applicable performance standards during the postclosure period after the reclamation bond is released. The plan shall address treatment of any tailings to ensure continued neutralization, operation of monitoring systems, inspection and maintenance activities, and procedures for maintaining the final vegetative cover and controlling erosion and fugitive dust. The postclosure period shall last 30 years unless it is adjusted by the SD Board of Minerals and Environment. The postclosure bond will be determined before the reclamation bond is released by the Board.

- Critical Resources (SDCL 45-6B-92):

Describe all critical resources which may be potentially affected by the operations. This includes wildlife, aquatic resources, vegetation, water, visual resources, soils, cultural resources, air quality, noise, and lands designated as special, exception, critical, or unique. Please use the guidelines listed in SDCL 45-6B-92 in addressing each critical resource.

- Reclamation of Mill Sites (ARSD 74:29:05):

Describe in detail the reclamation of any mill site constructed in conjunction with a mining operation or any stand-alone mill site by addressing the applicable sections of ARSD 74:29:05.

- Maps (SDCL 45-6B-7(8))

Please submit a post reclamation map showing the anticipated physical appearance and final contours of the reclaimed mine and portraying the outline of the proposed final land use for each portion of the reclaimed land. The map is required to conform to the criteria listed in ARSD 74:29:02:12.

- Bonding (SDCL 45-6B-20, SDCL 45-6B-20.1, and ARSD 74:29:02:08)

Please submit a cost analysis for each component of the affected land (mine pits, waste dumps, heap leach pads, process ponds, other mill facilities, water treatment, etc.) covered under the reclamation plan. The method for calculating estimated reclamation costs must be described in detail. If phased bonding is proposed, a cost analysis is required for each phase of the project. Once a reclamation bond amount has been determined by DANR, the bonding instrument (certificate of deposit, surety bond, letter of credit) is required to be submitted before the large scale mine permit is issued.

For operations that employ cyanide leaching or any other chemical or biological leaching process, additional financial assurance is required under SDCL 45-6B-20.1 to cover costs of responding to and remediating accidental releases of cyanide or other chemical or biological leaching agents to the environment.

Please include the following baseline surveys with the reclamation plan:

- A standard soil survey of the affected land prepared by a competent person, including a map showing the general type, thickness, and distribution of soil over the affected land (SDCL 45-6B-7(2) and SDCL 45-6B-10(6)).
- A vegetation survey of the affected land prepared by a competent person, including a description of the vegetative communities, dominant species present, approximate size, and density (SDCL 45-6B-7(3)).
- A wildlife survey on the affected land prepared by a competent person approved by the Department of Game, Fish, and Parks, including a description of the dominant species of wildlife inhabiting the area (SDCL 45-6B-7(4)).
- A cultural resources survey of the affected land prepared in consultation with the state archaeologist's office (SDCL 45-6B-7(5) and ARSD 74:29:02:06).
- Baseline water quality and water-level data for the area. The Department of Agriculture and Natural Resources will designate parameters to be tested and testing methods to be used during baseline sampling in accordance with the requirements in SDCL 45-6B-7(9), ARSD 74:29:02:07, and ARSD 74:29:02:11.
- A socioeconomic study prepared by a contractor approved by the SD Board of Minerals and Environment (SDCL 45-6B-33.1).

In accordance with ARSD 74:29:01:03, the operator may schedule meetings with the Department of Agriculture and Natural Resources and other review agencies to discuss baseline, general, and technical application requirements in advance of permit application preparation.