

Permit Number

1981-2100
Amended/Transferred

Dam Safety Permit

Expiration Date: 10/31/2045

Pursuant to Minnesota Statutes, Chapter 103G, and on the basis of statements and information contained in the permit application, letters, maps, and plans submitted by the applicant and other supporting data, all of which are made part hereof by reference, **PERMISSION IS HEREBY GRANTED** to the applicant to perform actions as authorized below. This permit supersedes the original permit and all previous amendments.

Project Name: LTVSMC Tailings Basin	County: St. Louis	Watershed: St. Louis River	Resource: Dug Pit/Holding Pond
Purpose of Permit: Dam Safety - Construction		Authorized Action: To construct and operate an existing taconite tailings disposal dam and to construct a NE increment of the existing basin known as the "North East Extension" in connection with the operation of the Erie Mining Company's Taconite production plant north of Hoyt Lakes, MN. The project is described in the documents, information, maps and plans submitted by the permittee or by the permittee's designer or agent on the permittee's behalf including: Application for Permit titled "Erie Mining Company. Application for Tailings Basin Permit. June 1981", Engineering Report and Supplement No. 1 produced by EBASCO Services Inc. and signed on 6/3/81 titled "Erie Mining Company, Hoyt Lakes, MN. Tailing Disposal Basin, Tailing Dam Investigation and Analyses."	
Permittee: POLY MET MINING, INC. CONTACT: KEARNEY, CHRISTIE, (218) 471-2163 6500 CO RD 666 PO BOX 475 HOYT LAKES, MN 55750 (218) 471-2150		Authorized Agent: N/A	
Property Description (land owned or leased or where work will be conducted): UTM zone 15N, 567165m east, 5271529m north, of Section 15, T59N, R14W Exhibit I and made a part of this permit.			
Issued Date: 11/01/2018		Effective Date: 11/01/2018	
		Expiration Date: 10/31/2045	
Authorized Issuer: Tom Landwehr /s/ Tom Landwehr	Title: DNR Commissioner	Email Address: tom.landwehr@state.mn.us	Phone Number: 651-259-5022

This permit is granted **subject to** the following **CONDITIONS**:

APPLICABLE FEDERAL, STATE, OR LOCAL REGULATIONS: The permittee is not released from any rules, regulations, requirements, or standards of any applicable federal, state, or local agencies; including, but not limited to, the U.S. Army Corps of Engineers, Board of Water and Soil Resources, MN Pollution Control Agency, watershed districts, water management organizations, county, city and township zoning.

NOT ASSIGNABLE: This permit is not assignable by the permittee except with the written consent of the Commissioner

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of Natural Resources.

NO CHANGES: The permittee shall make no changes, without written permission or amendment previously obtained from the Commissioner of Natural Resources, in the dimensions, capacity or location of any items of work authorized hereunder.

SITE ACCESS: The permittee shall grant access to the site at all reasonable times during and after construction to authorized representatives of the Commissioner of Natural Resources for inspection of the work authorized hereunder.

TERMINATION: This permit may be terminated by the Commissioner of Natural Resources at any time deemed necessary for the conservation of water resources of the state, or in the interest of public health and welfare, or for violation of any of the conditions or applicable laws, unless otherwise provided in the permit.

COMPLETION DATE: Construction work authorized under this permit shall be completed on or before the date specified above. The permittee may request an extension of the time to complete the project by submitting a written request, stating the reason thereof, to the Commissioner of Natural Resources.

WRITTEN CONSENT: In all cases where the permittee by performing the work authorized by this permit shall involve the taking, using, or damaging of any property rights or interests of any other person or persons, or of any publicly owned lands or improvements thereon or interests therein, the permittee, before proceeding, shall obtain the written consent of all persons, agencies, or authorities concerned, and shall acquire all property, rights, and interests needed for the work.

PERMISSIVE ONLY / NO LIABILITY: This permit is permissive only. No liability shall be imposed by the State of Minnesota or any of its officers, agents or employees, officially or personally, on account of the granting hereof or on account of any damage to any person or property resulting from any act or omission of the permittee or any of its agents, employees, or contractors. This permit shall not be construed as estopping or limiting any legal claims or right of action of any person other than the state against the permittee, its agents, employees, or contractors, for any damage or injury resulting from any such act or omission, or as estopping or limiting any legal claim or right of action of the state against the permittee, its agents, employees, or contractors for violation of or failure to comply with the permit or applicable conditions.

EXTENSION OF PUBLIC WATERS: Any extension of the surface of public waters from work authorized by this permit shall become public waters and left open and unobstructed for use by the public.

WETLAND CONSERVATION ACT: Where the work authorized by this permit involves the draining or filling of wetlands not subject to DNR regulations, the permittee shall not initiate any work under this permit until the permittee has obtained official approval from the responsible local government unit as required by the Minnesota Wetland Conservation Act.

CONTRACTOR RESPONSIBILITY: The permittee shall ensure the contractor has received and thoroughly understands all conditions of this permit. Contractors must obtain a signed statement from the property owner stating that permits required for work have been obtained or that a permit is not required, and mail a copy of the statement to the regional DNR Enforcement office where the proposed work is located. The Landowner Statement and Contractor Responsibility Form can be found at: <http://www.bwsr.state.mn.us/wetlands/wca/index.html#general>.

INVASIVE SPECIES - EQUIPMENT DECONTAMINATION: All equipment intended for use at a project site must be free of prohibited invasive species and aquatic plants prior to being transported into or within the state and placed into state waters. All equipment used in designated infested waters, shall be inspected by the Permittee or their authorized agent and adequately decontaminated prior to being transported from the worksite. The DNR is available to train inspectors and/or assist in these inspections. For more information refer to the "Best Practices for Preventing the Spread of Aquatic Invasive Species" at http://files.dnr.state.mn.us/publications/ewr/invasives/ais/best_practices_for_prevention_ais.pdf. Contact your regional Invasive Species Specialist for assistance at www.mndnr.gov/invasives/contacts.html. A list of designated infested waters is available at www.mndnr.gov/invasives/ais/infested.html. A list of prohibited invasive species is available at www.mndnr.gov/invasives/laws.html#prohibited.

7. PERIOD OF AUTHORIZATION: The authorized construction is limited to that detailed in references listed above and is further limited to that work proposed for the first 5 years of the design. Periodic 5 year extensions shall be granted by the Commissioner upon written request by the owner provided that past construction has been shown to be adequate and in compliance with approved plans and that future plans are in compliance with current prudent engineering practices at the time of the request for extension.

8. COMPLIANCE WITH OTHER LAWS: The authorized activities herein shall be subject to all Federal, State and local

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laws, rules, and regulations in effect now or adopted hereafter relating to such structures, facilities, and operations authorized herein. Although it is the intent of the Commissioner to maintain consistency with the permits or approvals of other agencies, nothing in this approval shall waive or abrogate any other state or federal approvals or permits which may be necessary for the Permittee's dams and tailings basin. The terms and conditions, whether similar or more stringent, which may appear in any other permit or approval.

9. MINELAND RECLAMATION: The Permittee shall comply with all mineland reclamation procedures as detailed in "Rules Relating to Mineland Reclamation 6 MCAR 1.0401-1.0407". Prior to renewal of this permit, the Permittee shall submit to the Commissioner for his approval a plan for reclamation of the dam and tailings basin.

10. MONITORING AND MITIGATION OF AIR, SURFACE AND GROUND WATER POLLUTION: The Permittee shall comply with all standards and regulations of the MPCA relating to air, surface and ground water pollution.

11. LIABILITY OF PERMITTEE: The Permittee shall assume all legal risks and liabilities, including without limitation those for damages or any injury to persons or property, arising from the construction, operation, maintenance or closure of these tailings dams, basin, and other activities authorized under this approval.

12. RESPONSIBILITY FOR CONTROL: The Permittee, in cooperation with its designer, shall be responsible for providing adequate controls on construction and operation activities, and for verifying design, construction and operation assumptions.

13. CONFORMITY WITH APPROVED DESIGNS, PLANS AND SPECIFICATIONS AND REVOCATION OF PERMIT: If at any time during construction of a project, the Commissioner finds that the work is not being done in conformance with approved designs, plans and specifications, the Commissioner shall notify the Permittee and shall order immediate compliance and may order that no further work be done until such compliance has been effected and approved. If the Permittee fails to comply with the terms of this permit or with approved designs, plans and specifications or if conditions are revealed which will not permit the construction of a safe dam, the permit may be revoked.

14. EMERGENCY WORK: If the Permittee finds at any time during construction or operation that, in order to adequately protect the environment or public health, safety or welfare, immediate alterations to the approved plans and specifications are required, the alterations may be started, but the Permittee shall promptly notify the Commissioner of such requirements. If the alterations are to remain as permanent project features, the Permittee shall, as soon as practicable, revise the plans and specifications and submit the revisions, in writing, to the Commissioner for approval.

15. UNFORESEEN CONDITIONS: The Permittee shall immediately notify the Commissioner of any conditions relating to structural suitability or water impacts discovered during construction or operations which differ from those identified in the approved plans and specifications. If such conditions require modification of the approved plans and specifications, the Permittee shall prepare such modification and submit them to the Commissioner for his approval.

16. PERMANENT MARKERS: A minimum of two (2) permanent markers for vertical and horizontal control shall be established in the natural ground by the Permittee in the vicinity of the dam. The permanent markers for vertical control must be based upon sea level datum. The accuracy of these markers shall be certified by the designer (or his representative), or a registered professional land surveyor. Each marker shall be located so as to be accessible and protected against disturbance throughout the projected life of the tailing basin. The Permittee shall within 90 days of the issuance of this approval submit to the Commissioner the locations of these permanent markers, plotted on standard U.S. Geological Survey topographic maps or other more detailed contour maps.

17. TEMPORARY REDUCTION OR CESSATION OF OPERATIONS: The Permittee shall immediately notify the Commissioner in the event of any plant or disposal system malfunction or operational change which requires a temporary reduction or modification or cessation of plant or waste disposal system operations. In no case shall the Permittee discharge wastes or process water to areas other than those within the tailings basin.

18. TRANSFER OF OWNERSHIP: The owner(s) shall not transfer the ownership of the dam without a written permit from the Commissioner.

19. CLOSED SYSTEM: The entire tailings basin shall be a closed-circuit operation, i.e. all surface and seepage waters shall be collected and returned to the basin; or be treated and released to the environment pursuant to MPCA's permitting authority. The excess runoff and transport water ponded over the settled wastes shall be reclaimed for reuse in the plant operations.

20. RATE OF INCREASE IN HEIGHT: The increase in dam height shall be limited to no more than 15 feet per year;

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greater yearly increases shall require written approval by the Commissioner.

21. ESTABLISHMENT OF SURFACE PROTECTION: The Permittee shall, as soon as practicable following the construction of a portion of the dam cover, protect or establish vegetative cover on the dam surfaces for the prevention of soil erosion. The Permittee shall keep the surface of the tailings disposed of within the basin, inundated, moist, or covered with appropriate chemicals or vegetation in order to minimize potential fugitive dust problems.

22. FREEBOARD AT DAM: During normal operational conditions, the water level upstream of the dam shall not be allowed to rise above an elevation 11 feet below the top of the dam. The water surface in the basin shall not be permitted closer than 200 feet to the dam crest (measured horizontally).

23. LOCATION OF TAILINGS TRANSPORT PIPELINES: Tailings transport pipelines shall be located away from the outside crest of the dam such that any breakage or misoperation of them will not result in tailings being spilled onto the downstream surface of the dam.

24. SAFETY BERMS ON DAM LIFTS: Any safety berms located on the horizontal lift portions of the dam shall be constructed in such a manner that they will not impound water.

25. INSPECTION, MONITORING AND REPORTING OF CONSTRUCTION: The Permittee shall submit a yearly report to the Commissioner covering the past year's construction and proposed construction for the coming year. The report shall be submitted by January 31 of each year. The frequency of the report may be changed if deemed necessary by the Commissioner. The report shall include, but not limited to routine construction documentation; construction quality control tests; summaries of actual tests of foundation and embankment materials, instrumentation installation and maintenance of instrumentation records; preparation of logs of drill holes and other exploration features, if any, completed during construction; review and evaluation of disclosed field conditions by the designer; logs of incidents involving the dam where routine or emergency maintenance work was required and logs of time spent on such activities; construction problems encountered, records or the amounts of materials entering and leaving the disposal basin, records of the amounts of any discharges of treated water released to the environment; aerial photos and updated maps of the basin and any other items which may be pertinent to a construction quality assurance program. The Permittee shall also submit yearly a performance report to the Commissioner detailing the instrumentation data and engineering analysis and interpretation of these data as they relate to the safety of the structures and the design assumptions. The construction reports should be prepared by a registered professional engineer and shall certify that construction was in accordance with approved plans and specifications or approved revisions thereof. A detailed engineering report shall be submitted to the Commissioner after every 50 foot rise in vertical elevation of the dam. The report shall address stability and adequacy of the dam.

26. MAINTENANCE: The project components authorized herein shall be properly maintained in order to achieve their intended and authorized functions, and in compliance with the terms and conditions of this approval. The Permittee shall perpetually maintain the tailings basin and all its parts so as to insure the integrity of all structures and to prevent the deposited wastes from entering the waters of the state. The Commissioner may impose such requirements as may be necessary, prior to the ultimate termination of the Permittee's operations, to insure that the Permittee will remain financially responsible for carrying out the activities required for perpetual maintenance, and that adequate funding will exist therefor. Logs of time spent on maintenance activities shall be developed and submitted to the Commissioner with the yearly construction reports.

27. INSPECTION FEES: Initial and periodic inspection fees shall be required as per the Dam Safety Rules 6 MCAR 1.5034 K. The Permittee shall submit to the Commissioner with the yearly construction report a detailed accounting of the cost of construction for the past year and an estimate of the construction cost for the future year. The amount of the fee should be estimated by the Permittee and submitted in the form of a check payable to the State Treasurer along with the yearly construction report.

28. RECORDS OF INCIDENTS: Logs shall be kept of all "incidents" involving the dam which affected normal construction or operating procedures such as pipeline breaks, development of erosion or slide areas, etc. The logs shall include description of the incidents and actions taken regarding them. The logs shall be submitted to the Commissioner with the yearly construction reports.

29. SUCCESSORS: The terms and provisions of this permit shall extend to and bind the successors in authority of the Commissioner and the legally assigned successors in interest of the Permittee.

30. ACCEPTANCE-OF PERMIT: Undertaking or initiating any work or part thereof authorized herein by the Permittee constitutes acceptance of the permit and all its terms and conditions.

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31. DEED REGISTRATION, NOTICE OF PERMIT CARD, AND EFFECTIVE DATE: This permit shall be recorded in the office of the Register of Deeds of St. Louis County, and a date stamped copy thereof furnished to the Division of Waters, Department of Natural Resources, 444 Lafayette Road, St. Paul, Minnesota 55101.

cc: Kim Boland, Area Hydrologist
Anna Hess, EWR District Manager
Mark Fredin, Conservation Officers, Aurora
Erin Loeffler, BWSR Wetland Specialists, St. Louis
David Demmer, BWSR Wetland Specialists, St. Louis
Gaea Crozier, DNR Regional Nongame Specialists, Northeast
Margi Coyle, DNR Regional Environmental Assessment Ecologist, Region 2
Tom Rusch, DNR Wildlife, Tower
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Mark Lindhorst, County, St. Louis
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Matt Royseth, City, Hoyt Lakes
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