

Order Number: 005

Environmental Penalty Order

Environmental Protection Act, R.S.O. 1990, c. E 19 (EPA)
Ontario Water Resources Act, R.S.O. 1990, c. O. 40 (OWRA)

To: Liberty Mines Inc.

Site: Redstone Mine
South Porcupine
Ontario, Canada
P0N 1H0

1 PART 1: DEFINITIONS

1.1 For the purposes of this Environmental Penalty Order (“**EP Order**”), the following terms shall have the meanings described below:

“**Director**” means the undersigned Director or, in the event that the undersigned is unable to act, any other director authorized to act pursuant to the EPA;

“**EP**” means environmental penalty;

“**EP Order**” means this Environmental Penalty Order number 005;

“**EPA**” means the Environmental Protection Act, R.S.O. 1990, c. E. 19, as amended;

“**ERT**” means the Environmental Review Tribunal;

“**LMI**” means Liberty Mines Inc.

“**Ministry**” means the Ontario Ministry of the Environment;

“**O. Reg. 222/07**” means Environmental Penalties – Ontario Regulation 222/07, made under the EPA;

“Regulated Person” means a person who owns or operates a plant that falls under section 3 of O. Reg. 222/07;

“Site” means the property municipally known as Redstone Mine and Mill, South Porcupine, Ontario.

“RSD-2” means effluent discharge sampling point at the treatment pond discharge to East Creek.

2 PART 2: LEGAL AUTHORITY AND REASONS

Legal Authority

Authority to Issue EP Order

2.1 Subsection 182.1(1) of the Environmental Protection Act, R.S.O. 1990, c. E. 19, as amended (**“EPA”**) authorizes the Director to issue an environmental penalty (**“EP”**) to a regulated person (**“Regulated Person”**) that:

- (a) Contravenes or has contravened:
 - i. Section 14 of the EPA,
 - ii. Section 93 of the EPA,
 - iii. A provision of a regulation that establishes or has the effect of establishing a numerical limit, including a limit of zero, on the amount, concentration or level of anything that may be discharged to the natural environment,
 - iv. A provision of an order under the EPA that establishes or has the effect of establishing a numerical limit, including a limit of zero, on the amount, concentration or level of anything that may be discharged to the natural environment, or
 - v. A provision of a certificate of approval, provisional certificate of approval, certificate of property use, licence or permit under the EPA that establishes or has the effect of establishing a numerical limit, including the limit of zero, on the amount, concentration or level of anything that may be discharged to the natural environment; or
- (b) The Regulated Person contravenes a provision of,
 - i. The EPA or the regulations,

- ii. An order under the EPA, other than an order under sections 99.1, 100.1 or 150 of the EPA or an order of a court,
- iii. A certificate of approval, provisional certificate of approval, certificate of property use, licence or permit under the EPA,
- iv. A report under section 29 of the EPA, or
- v. An agreement under subsection 182.1(9) of the EPA.

Agreements

2.2 Subsection 182.1(9) of the EPA allows the Director and the Regulated Person against whom a Notice of Intention or an EP Order has been issued to enter into an agreement that:

- A. Identifies the contravention in respect of which the Notice of Intention or an EP Order has been issued;
- B. Requires the Regulated Person against whom the Notice of Intention or an EP Order has been issued to take steps specified in the agreement within the time specified in the agreement, and
- C. Provides that the obligation to pay the penalty may be cancelled in accordance with O. Reg. 222/07 or the amount of the penalty may be reduced in accordance with O. Reg. 222/07.

Publication of Agreements

2.3 Subsection 182.1(10) of the EPA requires the Ministry of the Environment ("**Ministry**") to publish every agreement entered into under subsection 182.1(9) of the EPA in the environmental registry established under section 5 of the Environmental Bill of Rights, 1993.

Penalty Does Not Prevent Prosecution

2.4 Subsection 182.1(11) of the EPA allows a Regulated Person to be charged, prosecuted and convicted of an offence under the EPA in respect of a contravention referred to in subsection 182.1(1) of the EPA even if an EP has been imposed or paid by the Regulated Person in respect of the contravention.

No Admission of Liability

2.5 Under subsection 182.1(12) of the EPA, a Regulated Person that pays the EP imposed under subsection 182.1(1) of the EPA in respect of a contravention or enters into an agreement under subsection 182.1(9) of the EPA in respect of a contravention

does not represent an admission that the Regulated Person committed the contravention for the purposes of any prosecution for the contravention.

Failure to Pay When Required

- 2.6 Subsection 182.1(13) of the EPA allows the Ministry to enforce an EP Order where a Regulated Person who is required to pay an EP fails to comply with the requirement by,
- (a) Filing the EP Order or decision with the local registrar of the Superior Court of Justice and enforcing the EP Order or decision as if it were an order of the Superior Court of Justice,
 - (b) The Director may by order suspend any certificate of approval, provisional certificate of approval, licence or permit that has been issued to the Regulated Person under the EPA until the EP is paid, and
 - (c) The Director may refuse to issue any certificate of approval, provisional certificate of approval, licence or permit to the Regulated Person under the EPA until the EP is paid.

Key Background Facts Regarding the Issuance of This Environmental Penalty Order

- 2.7 The following outlines the key background facts, issues and concerns regarding this matter which provide me with the reasons for issuing this EP Order:

Details of the Orderee

- 2.7.1 Liberty Mines Inc. ("**LMI**") is a company incorporated under the laws of Ontario (Ontario Corporation Number: 1700175).
- 2.7.2 LMI is the owner and operator of a nickel mine that is located within the municipal boundary of the City of Timmins. . This facility is described in section 3 of the Ontario Regulation 560/94 (Effluent Monitoring and Effluent Limits-Metal Mining Sector). In accordance with subsection 3(1)(b) of Reg. 227/7, LMI is therefore considered to be a Regulated Person to whom the Director is authorized to issue an EP.

The Site

- 2.7.3 LMI operates the Redstone Mine, a nickel mining facility ("**Site**"). LMI has a sampling point RSD-2, known as the Treatment Pond Discharge to East Creek, which is regulated under the Effluent Monitoring and Effluent Limit – Metal Mining Sector of O. Reg. 560/94.

Events Leading Up To Issuing Environmental Penalty Order

- 2.7.4 In a letter dated December 7, 2007, LMI advised the Ministry that a toxicity (acute lethality test) failure had occurred on December 3, 2007 at the Treatment Pond Discharge to East Creek, sampling point RSD-2. The effluent sample from the sampling point exceeded the 50% mortality limit for Rainbow Trout. The toxicity test results indicated 100% mortality. The exceedence is above the acute lethality test limit identified in section 19 of O. Reg. 560/94.
- 2.7.5 Following notification by LMI of the toxicity failure, the Ministry requested that a plan of action be submitted. On December 17, 2007, LMI submitted a letter containing the information and corrective actions:
 - 2.7.5.1 Ammonia, a by-product of blasting, was the likely cause of the toxicity.
 - 2.7.5.2 LMI ceased their discharge to the environment as soon as it became aware of the toxicity test result.
 - 2.7.5.3 LMI changed its underground blasting agent to one having little to no ammonia by-product.
 - 2.7.5.4 LMI instructed mine personnel of the new blasting agent and procedures.
 - 2.7.5.5 Subsequent toxicity tests have passed.

2.8 This EP Notice of Intention relates to one contravention:

The result for a sample collected at sampling point RSD-2 under subsection 26 (3) of O. Reg 560/94 for toxicity on Rainbow Trout was 100% lethal on December 3, 2007. The result exceeds the acute lethality limit of 50% mortality established in section 19 of O. Reg. 560/94. LMI has contravened section 19 of O. Reg. 560/94.

This contravention is classified as a Type 2 contravention in accordance with item number 8 in Table 2 of O. Reg. 222/07. The seriousness of the contravention is classified in accordance with section 13 of O. Reg. 222/07, which specifies that a contravention specified in item 8 of Table 2 is classified as less serious. The cell in Table 4 that corresponds to the classification of type 2 and less serious is \$10,000 - \$15,000.

Application of Case-Specific Factors Listed in Paragraph 3 of s. 9(1) of O. Reg. 222/07

- 2.9 To determine the amount of the gravity component of an EP, the Director must look to section 9 of O. Reg. 222/07. More specifically, the Director will consider the factors identified in paragraph 3 of subsection 9(1) of O. Reg. 222/07. These

factors will then be assigned points and the total number of points will be used to determine the final gravity component of the EP.

- 2.10 Under paragraph 3(i) of subsection 9(1) of O. Reg. 222/07, the Director can consider a Regulated Person's contravention history under the EPA and/or the OWRA when determining the gravity component of the EP. LMI has had no convictions or EPs within the past five and three years respectively. Using Appendix 3 of the Guideline, this results in -1 point.
- 2.11 Under Appendix 3 of the Guideline, a ten thousand dollar (\$10,000) gravity component is imposed for a score of minus one (-1) points for an acute lethality failure violation.
- 2.12 The Contravention occurred for one day on December 3, 2007.

Director's Response to Regulated Person's Request for Review of Notice of Intention

- 2.13 On May 5, 2008, I issued a Notice of Intention to issue an EP Order to LMI. LMI responded on May 12, 2008 and asked me to review the Notice of Intention. LMI provided additional information to the Ministry regarding the Notice of Intention on June 9, 2008.

A copy of the Notice of Intention issued on May 5, 2008, is attached to and forms part of this EP Order.

A copy of LMI's written request that I review the Notice of Intention dated May 12, 2008, and the supplementary information response dated June 9, 2008 is also attached to and forms part of this EP Order.

- 2.14 I have reviewed both your written request and the additional materials you provided. My responses to your request(s) are as follows:

A. Reductions for Prevention:

- 2.14.1 Reductions to the gravity component are determined in accordance with section 16 of O. Reg. 222/07 on the grounds that the Regulated Person took steps to prevent the contravention or mitigate its effects. Section 4.1 in Appendix 4 of the Guideline specifically lists the preventive measure modifiers considered for discharge violations. A Regulated Person is eligible for up to a 20% reduction to the gravity component of a penalty for the steps the person took to prevent the discharge violations. For each consideration that has a "yes" answer in Table A1, the appropriate point value from the last 3 columns is assigned. The points are totaled and Table A2 is used, based

on the violation type to determine the percentage reduction for the preventive measures taken by the regulated person.

- 2.14.2 The letter from LMI dated May 9, 2008 and received by the Ministry on May 12, 2008 included a printout of LMI's Environmental Penalty Calculator Results. On the "Preventive Measures Reductions (Downward Modifiers), LMI requested reductions related to the following preventive measures: (1) preventive maintenance, (2) preventive monitoring systems, (3) process and pollution control, and (4) training. A supplementary letter dated June 9, 2008 that included on-site analytical results and training information to support their requested preventive measures reductions was also submitted.

2.14.3 **Preventive Maintenance**

LMI's letter dated June 9, 2008 identified that LMI has been monitoring the ammonia levels in the mine water since early in 2007. Elevated ammonia levels are a potential cause of acute lethality failures. The levels were measured for LMI's in-house sampling stations on the surface and within the underground of the Site. These actions were done to consistently try and identify the problem areas and to educate the miners on their responsibilities to keep these levels at a minimum. In addition, a third-party contractor was relieved of their responsibilities related to the development of the mine to increase LMI's control over the mining and residual ammonia levels.

I have reviewed this information and accept that LMI had preventive maintenance systems in place specific to where the area where and when the incident occurred.

In Table A1, a response of "yes" for 2(a) results in 1 point.

2.14.4 **Preventive Monitoring Systems**

LMI did not identify in their response dated May 9, 2008 and June 9, 2008 a system that warns operators of a potential unlawful discharge. In addition, there was no information to identify that operators followed any such procedures. While LMI provided analytical data to support preventive maintenance, this monitoring would not be a system that would alert operators to an impending potential exceedance (e.g. if ammonia levels in this area are at this level, then operators need to take the specified action). The monitoring results submitted identified in-house monitoring levels for November 22, 2007 and November 23, 2007 which is prior to December 3, 2007 but these appear more to be related to preventive maintenance. There is no link to identify what the levels actually mean in regard to a potential acute lethality failure.

I have reviewed this information and do not accept that LMI had a system in place that warns operators of a potential unlawful discharge, with documented procedures, and thus the operators were not alerted of a

potential unlawful discharge and were not able to respond to prevent the discharge from occurring. Therefore, no reductions will be given for this modifier, 4b in Table A1.

2.14.5 Process and Pollution Control

I have reviewed the submitted information and did not identify any specific information to identify that the mine had pollution emission control equipment in operation, above and beyond legislated requirements, to prevent an unlawful discharge. Therefore, no reductions will be given for this modifier, 5b in Appendix 4.1 of the Guideline.

2.14.6 Training

LMI in its submission dated June 9, 2008 identified that it has had a formal training program for its miners in the area of Ammonia Awareness since November 2007. The program consisted of videos, presentations and a written test. A training sign-off sheet and test was also included.

I have reviewed this information and accept that LMI has documentation that it had trained staff on the prevention of unlawful discharges specific to the process area.

In Table A1, a response of "yes" for 6(a) results in 1 point.

- 2.14.7 Adding the factors for preventive measures outlined in paragraphs 2.16.3 to 2.16.6 results in 2 points. Using Table A2, 1-3 points for acute lethality failures results in a 4% reduction to the gravity component for preventive measures. Therefore, LMI is entitled to a four hundred dollar (\$400.00) reduction to the gravity component for preventive measures.

B. Reductions for Mitigation:

- 2.14.8 Reductions to the gravity component are determined in accordance with section 16 of O. Reg. 222/07 on the grounds that the Regulated Person took steps to prevent the contravention or mitigate its effects. Section 4.2 in Appendix 4 of the Guideline lists all the mitigative measures that may be considered. A Regulated Person is eligible for up to a 10% reduction to the gravity component of a penalty for the steps the person took to mitigate the effects of the discharge violation. For each consideration in Table B1, the appropriate point value from the last 3 columns is assigned. Points are totalled and Table B2 is used to determine the percentage reduction for the mitigative measures taken by the Regulated Person.
- 2.14.9 The letter from LMI dated May 9, 2008 and received by the Ministry on May 12, 2008, included a printout of LMI's Environmental Penalty Calculator Results. On the "Mitigative Measures Reductions (Downward Modifiers), LMI

requested reductions related to the following mitigative measures: (1) implementation of a spill response plan, (2) response, and (3) training.

2.14.10 Implementation of a Spill Response Plan

LMI submitted a copy of the Emergency Response Plan and details regarding its implementation, including diversion of the water from the effluent pond to ensure adequate freeboard was maintained. In addition, LMI changed its underground blasting agent to one having little to no ammonia by-product. LMI instructed mine personnel of the new blasting agent and procedures. Subsequent toxicity tests have passed, including one taken on December 12, 2007 prior to recommencing discharging on December 27, 2007. The time prior to discharge was used to decrease ammonia concentration in the treatment pond.

I have reviewed this information and accept that LMI implemented their emergency response plan related to acute lethality failures.

In Table B1, a response of "yes" for 1(b) results in 1 point.

2.14.11 Response

- 2.14.11.1 LMI performed a cause analysis to find the source of the violation. LMI found that excess ammonia being released from blasting agents used underground caused the acute lethality failure for rainbow trout. The switch in blasting agents, from ammonia nitrate powder to watergel stick power, confirmed ammonia was the cause.

I have reviewed this information and accept that LMI conducted a detailed cause analysis to determine the source of the violation.

In Table B1, a response of "yes" for 2(c) results in 1 point.

- 2.14.11.2 As soon as LMI became aware that its discharge to the environment was acutely lethal to rainbow trout, LIM ceased its discharge, changed its underground blasting agent to one having little to no ammonia by-product, instructed mine personnel of the new blasting agent and procedures, communicated the severity of the situation to staff, undertook corrective actions in their loading operations, and allowed time to further reduce ammonia levels prior to recommencing their discharge.

I have reviewed this information and accept that LMI implemented fully and swiftly to rectify the problem as per industry best practices.

In Table B1, a response of "yes" for 2(d) results in 2 points.

- 2.14.11.3 LMI initiated a monitoring program at each of its underground sumps to find the source of the ammonia levels in the mine water. Ammonia monitoring analytical data was plotted on charts and posted in the shifter's office to serve as a tool to improve practices. In addition, LMI resampled their treatment pond on December 12, 2007.

I have reviewed this information and accept that LMI employed additional monitoring and sampling to minimize risk to the environment.

In Table B1, a response of "yes" for 2(e) results in 2 points.

- 2.14.11.4 LMI identified that underground workers were educated in the proper handling and disposal of blasting agents to minimize the release of ammonia to the environment. In addition, the posting of ammonia monitoring analytical data was used to educate the miners as to how their handling of the explosives can impact the mine's ammonia levels. This was implemented to encourage the underground miners to compare themselves to each other in order to minimize ammonia discharges, thus allowing the mine to achieve better environmental control. Shift supervisors also commenced inspection of loading operations in all headings during their run to correct poor loading practices. They also identified that if necessary "watergel stick powder" would be substituted in all work places with a corresponding compensation from the miners and shifters to minimize ammonia levels.

I have reviewed this information and accept that LMI implemented a process to incorporate lessons learned into future preventive actions.

In Table B1, a response of "yes" for 2(f) results in 2 points.

2.14.12 Training

LMI provided to the ministry, a copy of their completed Environmental Emergency Response Plan Sign-Off Sheet which indicated that their miners had been trained.

I have reviewed this information and accept that LMI trained their staff specific to the process/area where the incident occurred on the appropriate responses to unlawful discharges.

In Table B1, a response of "yes" for 4(a) results in 1 point.

- 2.14.13 Adding the factors for reduction outlined in the paragraphs 2.16.10 to 2.16.12 results in 9 points. Using Table B2, 7 or more points for an unlawful discharge from an approved discharge point results in a ten percent (10%) reduction to the gravity component. Therefore LMI is entitled to a one thousand dollar (\$1,000.00) reduction to the gravity component for mitigative measures.

Amount of Environmental Penalty

- 2.15 Under section 7 of the Regulation 222/07, the amount of the EP for a contravention is calculated by adding the monetary benefit (section 8 of Reg. 222/07 to the gravity component (section 9 of Reg. 222/07) which includes subtracting the reduction for prevention or mitigation measures (section 16 of Reg. 222/07, the reduction for an environmental management system (section 170 of Reg. 222/07 and the reduction for an agreement (section 18 of Reg. 222/07), as applicable.
- 2.16 No monetary benefit is being attributed to the acute lethality test failure contravention. The gravity component as identified in paragraph 2.11 is ten thousand dollars (\$10,000). The reduction for prevention measures as identified in paragraph 2.16.7 is four hundred dollars (\$400.00). The reduction for mitigative measures as identified in paragraph 2.16.13 is one thousand dollars (\$1,000.00). This results in an EP of eight thousand and six hundred dollars (\$8,600.00).

3 PART 3: ORDER TO PAY ENVIRONMENTAL PENALTY

- 3.1 For the reasons stated above and pursuant to my authority under subsection 182.1(1) of the EPA, I order you to pay an EP in the amount of eight thousand dollars (\$8,600.00) to the Minister of Finance by September 15, 2008. This payment shall be made by certified cheque and sent to the following address Ministry of the Environment, Timmins District Office, Ontario Government Complex, P.O. Bag 3080, South Porcupine, Ontario, P0N 1H0.

4 PART 4: GENERAL

- 4.1 All orders are issued in the English language and may be translated into the French language. In the event that there should be a conflict between the English original and the French translation, the English original shall prevail.
- 4.2 Subsection 19(1) of the EPA provides that an order of the Director is binding upon the successor or assignee of the person to whom it is directed.

4.3 The requirements of this order are minimum requirements only and do not relieve you from:

- complying with any other applicable order, statute, regulation, municipal, provincial or federal law
- obtaining any approvals or consents not specified in this order

4.4 Notwithstanding the issuance of this order, further or other orders may be issued in accordance with legislation as circumstances require.

4.5 In the event that any party to this order is, in the opinion of the Director, rendered unable to perform or comply with any obligations herein because of

- natural phenomena of an exceptional, inevitable or irresistible nature, or insurrections, or
- any other cause whether similar to or different from the foregoing beyond the reasonable control of the parties,

the obligations hereof, as they are affected by the above shall be adjusted in a manner defined by the Director. To obtain such an adjustment, the party must notify the Director immediately of any of the above occurrences, providing details that demonstrate that no practical alternatives are feasible in order to meet the compliance dates in question.

4.6 Failure to comply with a requirement of this order by the date specified does not absolve the parties from compliance with the requirement. The obligation to complete the requirement shall continue each day thereafter.

4.7 This order has no expiry date.

5 PART 5: APPEAL RIGHTS

5.1 Under section 140 of the EPA, you may require a hearing before the Environmental Review Tribunal, if, within fifteen days after service upon you of this order, you serve written notice upon the Review Tribunal and the Director.

5.2 Section 142 of the EPA provides that the notice requiring the hearing must include a statement of the portions of the order for which the hearing is required and the grounds on which you intend to rely at the hearing. Except by leave of the Environmental Review Tribunal, you are not entitled to appeal a portion of the order or to rely on grounds of appeal that are not stated in the notice requiring the hearing.

5.3 Written notice requiring a hearing shall be served in accordance with the applicable Act(s) or Service Regulations on the following:

The Secretary
Environmental Review Tribunal
655 Bay Street, 15th Floor
Toronto, ON M5G 1E5
(416) 314-4506 (fax)

and

Franca Dignem
Director, Northern Region
Ministry of the Environment
Suite 1201
199 Larch St
Sudbury ON P3E 5P9
(705) 564-4180 (fax)

Where service is made by mail, the service shall be deemed to be made on the fifth day after the day of mailing and the time for requiring a hearing is not extended by choosing service by mail.

Refer to Service of Documents Regulation 227/07 for further rules regarding service by fax.

6 PART 6: PROCESS OF APPEAL BEFORE ENVIRONMENTAL REVIEW TRIBUNAL

- 6.1 Subsection 145.4(1) of the EPA provides that the regulations made under clause 182.1(15)(d) governing the determination of the amounts of an EP apply to the Environmental Review Tribunal ("**ERT**").
- 6.2 Subsection 145.4(2) of the EPA provides that the ERT shall not substitute its opinion for that of the Director with respect to the amount of the EP Order unless the ERT considers the amount to be unreasonable.
- 6.3 Subsection 145.5(2) of the EPA places the onus on the Regulated Person requesting the hearing before the ERT to prove that the contravention of section 14 of the EPA did not cause or could not have caused an adverse effect.
- 6.4 Subsection 145.5(3) of the EPA places the onus on the Regulated Person requesting the hearing before the ERT to prove that a contravention of section 93 of the EPA that:
- i. The discharge of the pollutant was not abnormal in quality or quantity in light of all the circumstances of the discharge;

- ii. The pollutant that was spilled did not cause and was not likely to cause an adverse effect; or
- iii. Forthwith after the pollutant was spilled, the person did everything practicable to prevent, eliminate and ameliorate the adverse effect and to restore the natural environment.

6.5 Subsection 145.5(4) of the EPA places the onus on the Regulated Person requesting the hearing before the ERT to prove that a contravention of a provision referred to in subclause 182.1(a)(iii), (iv) or (v) that the Regulated Person did not contravene the provision.



Franca Dignem

Director appointed under subsection 182.1 (1) of the EPA

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(705) 564-4180 (fax)

Date: July 21 / 08.