

**National Pollutant Discharge Elimination System (NPDES) Permit for  
Hecla Mining Company - Lucky Friday Mine  
NPDES Permit No. ID-000017-5**

**Response to Comments on Permit Modification**

**December 27, 2005**

**U.S. Environmental Protection Agency, Region 10**

## **INTRODUCTION**

This document provides a response to comments received on the draft National Pollutant Discharge Elimination System (NPDES) permit modification for the Lucky Friday Mine, owned and operated by Hecla Mining Company (Hecla). The draft permit modification was issued for public comment on June 21, 2005. A Fact Sheet entitled "Fact Sheet for Permit Remand and Modification Proceedings" (the Fact Sheet) was issued with the draft permit modification. The Fact Sheet described the facility activities, wastewater discharges, reason for the modification, and how the modified permit conditions were developed.

## **BACKGROUND**

EPA Region 10 (the Region) issued a final NPDES permit for the Lucky Friday Mine on August 12, 2003. Hecla filed a petition with EPA's Environmental Appeals Board (EAB) to appeal some of the conditions in the permit. These permit conditions are stayed pending the outcome of the appeal. Hecla also appealed the State's Clean Water Act Section 401 certification of the 2003 NPDES permit. In response to Hecla's appeal of the 401 certification, the Idaho Department of Environmental Quality (IDEQ) revised some of the 401 certification conditions and sent to the Region, on July 15, 2004, the final revised Section 401 certification. On August 19, 2004, Hecla sent to the Region a request to modify the Lucky Friday Mine permit based on the revised 401 certification. In addition, Hecla sent a request to the EAB requesting that the EAB remand five issues raised in its petition that were affected by the revised 401 certification. On October 13, 2004, the EAB remanded these five issues to the Region.

On June 21, 2005, the Region issued a draft modification to the Lucky Friday NPDES permit in response to the revised 401 certification, the EAB remand order, and Hecla's request for modification. The following modifications were proposed:

- Revised effluent limits for copper and mercury based on increased mixing zone sizes.
- Addition of a compliance schedule for meeting the cadmium limits at outfall 003 and at outfall 002 when the outfall 003 waste stream is discharged through outfall 002.
- Addition of a compliance schedule requirement that Hecla submit to EPA and IDEQ the design of its wastewater recycling system prior to implementing the system.
- Revision of some of the interim effluent limits effective during the compliance schedule.

- Establishment of a 2007 deadline for beginning the permit's seepage study and hydrological analysis requirements and a March 14, 2008 submission date for the report documenting the results of this study and analysis.
- Revision of some of the bioassessment monitoring requirements and establishment of a 2007 deadline for beginning the bioassessment monitoring.

The Region also proposed modification of the total suspended solids (TSS) limits to include new TSS loading limits based on wasteload allocations in the South Fork Coeur d'Alene River Sediment Subbasin Assessment and Total Maximum Daily Load (the Sediment TMDL). The Sediment TMDL was approved by EPA on August 21, 2003.

The draft permit modification comment period ended on July 21, 2005. Comments on the draft permit modification were received from Hecla and from the Center for Justice (on behalf of Idaho Rivers United and the Sierra Club). This document provides a response to the comments.

#### **CWA SECTION 401 CERTIFICATION OF THE TSS LIMITS**

Most of the permit conditions that were proposed for modification were based on the revised 401 certification. The Region, therefore, did not request that IDEQ re-certify these conditions. The new proposed TSS loading limits, however, were based on the sediment TMDL which was approved following issuance of the 2003 permit. On December 16, 2005, IDEQ issued a Section 401 certification for the TSS limits in the draft permit modification (IDEQ 2005). The TSS Certification stated that the TSS limits included in the permit comply with the wasteload allocations set forth in the Sediment TMDL and that if the Lucky Friday Mine and Mill complies with the terms and conditions related to TSS imposed by the permit, there is reasonable assurance the discharge will comply with Idaho Water Quality Standards.

#### **CHANGE TO EPA REPORTING ADDRESS**

Part III.B. of the permit provides the address for submitting monitoring results to EPA and IDEQ. Due to organizational changes within EPA, the address for submitting monitoring information to EPA has changed. The original address was the Office of Water at OW-133. The new address is the Office of Compliance and Enforcement at OCE-133. This change is reflected in Part III.B. of the permit.

## COMMENTS RECEIVED ON THE DRAFT PERMIT MODIFICATION

Following are comments on the draft permit modification and EPA's responses. In some cases, the exact phrasing of comments is presented. In other cases, substantive portions were excerpted or summarized from the comment. The Administrative Record files contain complete copies of each comment letter.

### **Comments from Hecla Mining Company (July 15, 2005 letter from Mike Dexter, Lucky Friday Mine, to the Director Office of Water and Watersheds, EPA)**

#### **Comment 1:** Incorporation of Prior Comments.

The Draft Modified Permit raises a variety of issues that are relevant to prior Hecla comments and therefore, all comments submitted on previous permit actions, including the variance request and any exhibits, by either the Lucky Friday Mine or Hecla are hereby incorporated into these comments by reference without limitation.

**Response:** Comments submitted by Hecla on past EPA actions, including issuance of the 2003 final NPDES permit and EPA's decision on Hecla's request for a variance were responded to as part of the decision-making processes for those actions. EPA refers Hecla to the administrative records for those actions.

#### **Comment 2:** Hecla seeks pH Adjustment.

Hecla commented that the upper pH limits should be adjusted from 9.0 su to 10.0 su. Hecla provided the following reasons for increasing the pH limits.

##### **Reason 1:** The 401 certification allows for a higher upper pH limit.

The state's final 401 certification of July 15, 2004 authorized a mixing zone for pH. DEQ was supplied with a mixing zone analysis for pH showing that a pH of 10 s.u. in the effluent would result in no more than 0.2 s.u. pH increase in the receiving water, thus the state certified mixing zone would meet state water quality standards. The overriding intent of the Clean Water Act (CWA) is to meet applicable criteria instream. To ignore the will of the state on this issue flies in the face of the Congressional intent of the CWA to recognize, preserve, and protect the States' rights to manage the water resources of the States (Section 101(b)).

##### **Reason 2:** EPA regulations allow for relief of the upper pH limit.

EPA regulations at 40 CFR 440.131 allow for relief of the technology-based pH upper limit; 40 CFR § 440.131(d) clearly allows an adjustment to the pH technology based effluent limit to achieve "relevant metal limitations." It is also clear, that use of the term "relevant metals limitation" in 40 CFR § 440.131(d) not only include the technology based effluent limits in Part 440 but also included water quality based effluent limits (WQBELs).

Hecla cites a previous report submitted to EPA that points to the need for lime treatment (which would raise the pH) to meet the new metals limits in the final permit (Centra Conceptual Design Report. Centra Consulting, Inc., August 2001). Hecla states that the use of lime treatment and sedimentation for the treatment of dissolved metals could result in the discharge of pH up to 10. Hecla also cites EPA Treatability Manual, Volumes 1-5 (EPA-600/2.82-001) and the Development Document for Proposed Effluent Limit Guidelines for the Ores Mining and Dressing Point Source Category (EPA May 1982) that lime is needed to achieve metals limits and that resulting pH levels are higher than 9.0.

Hecla also cites the work of EPA consultants in the Coeur d'Alene Basin "FINAL CANYON CREEK TREATABILITY STUDY PHASE I REPORT" (March 23, 2005), prepared for EPA by URS Group, Inc. that a high pH is necessary to treat for metals. Hecla cites Appendix C (Columbia Analytical Services Case Narrative), page 4, states under "General Observations" that "It was apparent that the optimal target pH is 10.5"! The focus of this study was on the removal of dissolved zinc, cadmium, and lead – the same metals of concern, from the same ore types, as those in the Lucky Friday discharge.

Hecla cites the Federal Register to EPA's proposal of 40 CFR § 440.131, that provides that a pH adjustment was authorized "if evidence as submitted to the permitting authority demonstrates that this provision will not result in degradation of water quality in the receiving stream or toxic conditions for its biota." 47 Fed. Reg. 25682, 25701 (June 14, 1982). The State of Idaho's final water quality certification of July 15, 2004 clearly provides that water quality in the South Fork of the Coeur d'Alene River will not be degraded and that there will not be toxic conditions for biota by reason of pH discharges of 10.0 s.u.

Reason 3: The alternative to pH adjustment is for storage and use of large volumes of acid near the river. Hecla cannot understand why EPA would advocate such a result from an environmental protection standpoint.

Reason 4: EPA has provided relief of the upper pH limit to other facilities. The Red Dog Mine was issued a permit with a pH upper limit of 10.5 s.u. in 1998 based upon that facility's need to achieve more stringent WQBELS for dissolved metals and in reliance upon 40 CFR 440.131. The Sunshine Mine was issued a permit with an upper pH limit of 9.5 s.u. to remove dissolved metals. The Bunker Hill Central Treatment Plant (CTP), operated by EPA, is operating under the conditions of an expired permit issued to Bunker Hill, with an upper pH limit of 10.0 s.u. to remove dissolved metals. Even though the CTP operates within the superfund "box", it discharges to the South Fork of the Coeur d'Alene River, which is not part of the superfund "box", thus the CTP discharge should be subject to the same standards as the Lucky Friday Mine.

Reason 5: Increased hardness due to increased pH in the discharge also helps the health of the receiving water. Increased hardness reduces the toxicity of the heavy metals already in the system due to natural and manmade causes, and EPA Region 10 knows this.

**Response:** The upper pH limit of 9.0 su in the final permit was based on the technology-based effluent limitation guidelines (ELGs) for Copper, Lead, Zinc, Gold, Silver, and Molybdenum Ores subcategory found in Subpart J of 40 CFR 440. The guidelines specify an upper pH limit of 9.0 s.u. During the comment periods available for the permit that was issued in 2003, Hecla requested an upper pH limit of 10.0 s.u. Hecla did not cite 40 CFR 440.131(d) as a basis for increasing the limit. Hecla did cite this provision in its brief to the EAB, however, that was after the 2003 permit was issued.

The revised 401 certification authorized a mixing zone of 25% for pH above 9.0 s.u. However, the upper pH limit of 9.0 s.u. is a technology-based limit and the NPDES regulations do not allow for dilution (mixing zones) to be considered in implementation of technology-based limits. The NPDES regulations at 40 CFR 122.44(a)(1) require that NPDES permits include technology-based effluent limitations and standards and nothing in the regulations allows for considering dilution of effluent in the receiving water to determine technology-based limits. Therefore, the upper pH limit cannot be increased on the basis of the mixing zone included in the revised 401 certification.

The NPDES regulations at 40 CFR 440.131(d)(1), however, do provide a basis for increasing the upper pH limit specified in the ELGs. 40 CFR 440.131(d)(1) states “Where the application of neutralization and sedimentation technology to comply with relevant metal limitations results in an inability to comply with the pH range of 6 to 9, the permit issuer may allow the pH level in the final effluent to slightly exceed 9.0 so that the copper, lead, zinc, mercury, and cadmium limitations will be achieved.” Hecla currently operates tailings ponds that allow for sedimentation prior to discharge. However, Hecla has not supplied EPA with any commitment that they will implement neutralization technology in order to meet the metals limits in the permit. Nor has Hecla supplied information related to the expected pH in the discharge following neutralization and sedimentation treatment to meet the metals limits in the final permit or draft permit modification. In fact, Hecla has challenged the metals limits in the permit in an appeal to the EAB.

In its comment Hecla cites the Centra report, EPA’s treatability study manual, EPA’s development document for the effluent limitations guidelines, and a treatability study report for Canyon Creek as examples of documents that discuss processes that require pH above 9 s.u. in order to

treat for metals. EPA agrees that in many cases pH adjustment is required to precipitate metals and that for certain wastewaters pH adjustment above 9.0 s.u. is required. However, there are also examples where pH adjustment is used to treat metals, yet the final effluent meets the technology-based limit of 9.0 s.u. One example, is Hecla's Grouse Creek Mine. Wastewater from the mine is treated via processes similar to those identified by Hecla in its comment, yet the wastewater meets the NPDES permit limit which requires that the effluent not exceed pH 9 s.u. (EPA 1999 and EPA 2002).

Hecla has submitted no specific plans or commitment to implement a specific neutralization treatment technology to treat wastewater from the Lucky Friday Mine nor any demonstration that the pH of the wastewater following treatment will exceed 9.0 s.u. If Hecla submits information that provides a commitment to implement a neutralization process to meet the metals limits and demonstrates that the process will result in a pH above 9.0 s.u. upon discharge, then EPA may consider modifying the NPDES permit to incorporate a limit higher than 9.0.

EPA did allow a higher pH limit in the NPDES permit for the Red Dog mine discharge pursuant to 40 CFR 440.131(d)(1) (EPA 1993). The permit included the higher limit since the wastewater was being treated by a high density sludge wastewater treatment plant that utilized neutralization and settling as part of the treatment processes. In addition, the Red Dog permittee (Cominco) had committed to upgrading the treatment process. EPA would consider allowing a higher pH limit for the Lucky Friday mine should Hecla commit to installing similar treatment and demonstrate that the use of this technology would render it unable to comply with an upper pH limit of 9.0 s.u.

The permit for the Sunshine Mine includes an upper pH limit of 9.5. That limit was not developed according to 40 CFR 440.131(d)(1), but rather represents a calculated technology-based pH requirement for a number of combined wastestreams. (EPA 1990). Some of these wastestreams have technology-based limits of 10.0. These wastestreams are not equivalent to those for the Lucky Friday Mine.

Contrary to the statements in the comment, the Bunker Hill CTP does not operate under an expired NPDES permit and the CTP discharge does not exceed a pH of 9.0. The NPDES permit for the CTP has been terminated since the CTP is operated by EPA under Superfund authorities. The CTP is operated pursuant to the "Bunker Hill CTP Discharge Quality and Monitoring Plan" (EPA 2001) which provides effluent quality limits and monitoring requirements for the CTP. The CTP Discharge Quality and Monitoring Plan requires that the discharge from the CTP not exceed a pH of 9.0 s.u (see Table 2 of EPA 2001). This is equivalent to what is currently being required for the Lucky Friday Mine.

Based upon the above response, the upper pH limit of 9.0 will be retained in the final permit. However, EPA will consider modifying the NPDES permit to include a higher pH limit pursuant to 440.131(d)(1) should Hecla submit information that provides a commitment to implement a neutralization and sedimentation process to meet the metals limits and demonstrates that the process will render it unable to comply with an upper pH limit of 9.0 s.u.

**Comment 3:** Interim Limits.

The draft modified permit does not allow for the interim limits based upon recent performance agreed to with DEQ in the state 401 certification. We were under the impression that EPA Region 10 also agreed that the interim limits should be based upon past performance. Compliance schedules authorized by state law should be considered controlling on the issue of interim limits and EPA Region 10 should reconsider their position.

**Response:** In the revised 401 certification, IDEQ authorized a compliance schedule to meet the cadmium, lead, mercury, and zinc metals limits in the Lucky Friday permit. The compliance schedule included interim limits for these parameters. The Region included, in the draft permit modification, the interim limits as specified in the revised 401 certification, with one exception. The exception is the lead interim limits for outfall 001.

The revised 401 certification specified interim lead limits for outfall 001 of 899 ug/l (maximum daily) and 440 ug/l (average monthly). These limits are higher than the technology-based effluent limitation guidelines (ELGs) that are applicable to the Lucky Friday Mine. The ELGs for lead that are applicable to Lucky Friday Mine outfall 001 are 600 ug/l (maximum daily) and 300 ug/l (average monthly); see 40 CFR 440.103 and the Fact Sheet, Appendix B, Section II. The statutory deadline for meeting technology-based limits based on ELGs was March 31, 1989 (40 CFR 125.3(a)(2) and CWA 301(b)). Compliance schedules are not allowed where statutory deadlines have passed (40 CFR 122.47(a)(1)). Since the CWA and NPDES regulations do not allow setting limits higher than technology-based ELGs, the outfall 001 interim lead limits in the revised 401 certification cannot be included in the permit. The technology-based ELGs, instead, were included as the interim limits in the draft permit modification. This was discussed in the Fact Sheet (see Table 5, footnote 5 and Section D.). Based upon the above discussion, the interim limits included in the draft permit modification were retained in the final permit.



**Comment 4:** Permit Effective Date.

The Fact Sheet states that most of the “changes proposed in today’s action are based on a revised Clean Water Act Section 401 certification”. Regardless of how either DEQ or EPA characterize the 401 certification issued by DEQ on 15 July 2004, this certification is the “final” certification after the compliance required for 401 certifications under the Idaho Administrative Procedures Act (IDAPA). Clean Water Act Section 401(a) (1) mandates these IDAPA requirements. This same section clearly states “No license or permit shall be granted until the certification required by this section has been obtained...”. Subsequent issues requiring a “modification” or “revision”, such as the TSS TMDL, clearly represent a “modification” or “revision”, but the 15 July 2004 certification was the “final” pursuant to IDAPA. As such, the issuance of the permit prior to addressing the final 401 certification was premature, thus both the effective date, compliance schedule and expiration date of the permit must be changed accordingly.

**Response:** EPA’s issuance of the permit was not premature. IDEQ issued a final Section 401 certification for the Lucky Friday permit on June 17, 2003. The June 17, 2003 certification was a final certification as characterized in the certification letter which stated “This letter will serve as certification by the State of Idaho pursuant to the provisions of Section 401 of the Federal Water pollution Control Act, (Clean Water Act) as amended, 33 USC Section 1341.” The NPDES permit issued by the Region on August 12, 2003 included conditions authorized in the June 2003 certification.

On July 15, 2004 IDEQ issued a revised 401 certification. In subsequent correspondence, IDEQ refers to the July 15, 2004 certification as a “revised 401 certification” and “modified certification” (IDEQ 2004b). By today’s action, EPA is revising a number of the permit’s conditions to reflect the modified (July 2004) 401 certification. A number of these revisions to the permit limits are mandated by 40 CFR 124.55(b) because the modified 401 certification was received before final agency action on the permit and required more stringent conditions. Other conditions are being revised to be less stringent in light of the modified 401 certification, Hecla’s August 19, 2004 modification request, and the EAB’s remand order. Nothing in EPA’s regulations, the modified 401 certification, Hecla’s August 19, 2004 modification request, or the EAB’s remand order authorizes or compels revisions to the permit’s original effective dates, compliance schedules, or expiration date.

Many of the original permit’s conditions were neither challenged by Hecla nor affected by the EAB’s remand order and have therefore been in effect since November 2003 in accordance with 40 CFR 124.16(a)(2) (EPA 2003, EPA 2004). Revising the permit’s effective and expiration dates more than two years after these conditions went into effect would sow further confusion and could run afoul of the requirement that “NPDES permits shall be effective for a fixed term not to exceed 5 years” and that

this maximum duration not be exceeded through permit modification. 40 CFR 122.46(a), (b).

Based on the above discussion, the permit effective and expiration dates have not been changed and neither have the compliance schedule dates. The NPDES regulations at 40 CFR 122.62 state that when a permit is modified, “only the conditions subject to modification are reopened.” Therefore the permit effective and compliance schedule dates have not been revised

**Comments from the Center for Justice, submitted on behalf of Idaho Rivers United and the Upper Columbia River Groups of the Sierra Club (July 20, 2005 letter from Rick Eichstaedt to Patty McGrath, EPA)**

**Comment 5:** Mixing Zones

Center for Justice comments that the mixing zones for mercury and copper are increased by 200% and 100%, respectively. IDAPA 58.01.02.051 requires that “the existing in stream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.” They comment that the increases appear to be in violation of state regulations addressing maximum size limitations for mixing zones. The permit lacks an explanation of the reason for such a large increase in the size of the mixing zones and no measures are discussed identifying how stream quality and beneficial uses will be protected. For the mercury mixing zones, Center for Justice requests additional explanation and analysis, including a discussion of the consistency of the mixing zone with the protection of beneficial uses. For the copper mixing zones, Center for Justice requests that the copper mixing zones be changed to be consistent with the mixing zone size limits at 58.01.02.060 Section 1 (a) and (i). They also request that the increases, the reason for the increases, and the overall size of the mixing zones be explained in more detail.

**Response:** The NPDES regulations allow for dilution (mixing zones) to be considered in developing water quality-based effluent limits (40 CFR 122.44(d)(1)(ii)), such as those for copper and mercury in the Lucky Friday permit modification. Mixing zones can be established where the state has mixing zone provisions in its water quality standards regulations and authorizes mixing zones in a CWA Section 401 certification of the NPDES permit. As discussed in the Fact Sheet for the draft permit modification, the mixing zone volumes used to develop the copper and mercury effluent limits were based on IDEQ’s July 15, 2004 revised 401 certification. IDEQ certified that these mixing zones will be protective of designated uses in the South Fork and that there is reasonable assurance that the discharges will comply with Idaho Water Quality Standards. Comments related to the state certification action and authorization of mixing zones should be sent to IDEQ. Please see IDEQ’s administrative

record supporting the mixing zones for information related to consistency with the states mixing zone policy, mixing zone sizes, and protection of beneficial uses.

**Comment 6:** Antidegradation Analysis

The permit documents lack any discussion of antidegradation requirements or any antidegradation assessment. The CWA requires that EPA conduct a full antidegradation analysis for all NPDES permits. The commenter requests that an antidegradation analysis take place to ensure that the levels for release do not further degrade the river and damage current uses (including within the mixing zone). Given the length of time that the Lucky Friday Mine has been operating without a valid permit (1980-until now), an extensive antidegradation analysis is appropriate.

**Response:** The proposed limits in the draft permit modification were based on state water quality standards and mixing zones authorized in the revised 401 certification. The revised 401 certification states “If the Lucky Friday Mine and Mill complies with the terms and conditions imposed by this permit and the conditions set forth in this 401 Certification, there is reasonable assurance the discharges will comply with the applicable requirements of Sections 208(e), 301, 302, 303, 306, and 307 of the Clean Water Act, including Idaho Water Quality Standards and Wastewater Treatment Requirements (Water Quality Standards).” Antidegradation is part of the state water quality standards and the certification provides reasonable assurance that the permit complies with the standards, and therefore, with antidegradation.

Idaho’s antidegradation policy (IDAPA 58.01.02051.01) states in part, that “the existing in stream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.” The “level of water quality necessary to protect the existing uses” is defined by the State’s water quality standards. Meeting these standards will ensure that the existing uses will be protected. The limits in the final permit are based on the state standards. Therefore, the permit is consistent with Idaho’s antidegradation policy. The metals limits in the final permit will require Hecla to improve the quality of the wastewater that they are currently discharging. This will result in improved water quality and therefore complies with the Idaho’s antidegradation policy.

**Comment 7:** Seepage Studies

The draft permit indicates that the applicant will receive extension on the required seepage studies. Center for Justice comments that it is unclear why the applicant after 20+ years of operating without a valid permit why such an extension is appropriate. Please provide additional details as to why an extension is appropriate.

**Response:** The 2003 NPDES permit required that the seepage study be submitted to EPA and IDEQ within 3 years of the effective date of the permit. However, in its revised 401 certification, IDEQ stated that the seepage study should be required after implementation of the water recycling program in 2007. This change was included in the draft permit modification. It makes sense to begin the seepage study after implementation of water recycling since changes to wastewater flowing into the tailings ponds may result in changes to any seepage from the ponds. It is important for seepage to be adequately characterized in order for the Region to determine the need for any future permit conditions related to the seepage.

It should be noted that requiring that the seepage study begin in 2007 is not really an extension or delay of the seepage studies. That is because the seepage study portion of the permit is not currently in effect due to Hecla's petition to appeal this portion of the permit. Conditions in the permit that are subject to appeal are currently stayed, or not in effect, pending outcome of the appeal. Therefore, the original language (3 years from the effective date of the permit) is actually less stringent than the new language that requires the seepage study begin in 2007.

**Comment 8:** Monitoring

The draft permit proposed that bioassessment monitoring will begin in 2007. Given the length of the permit (5 years), monitoring should begin immediately. Please provide additional details as to why such a delay is appropriate.

**Response:** The bioassessment monitoring provisions were included in the 2003 NPDES permit because the state required the monitoring in its original 401 certification. The revised 401 certification specified that bioassessment monitoring begin in 2007. This change was incorporated into the draft permit modification. The Region believes that it is appropriate to defer to the State's 401 certification regarding when to begin the bioassessment monitoring since the State authorized the bioassessment monitoring in the certification.

**REFERENCES**

EPA 1990. Proposed Reissuance of a NPDES Permit to Discharge Pollutants Pursuant to the Provisions of the Clean Water Act. Fact Sheet for Sunshine Mining Company. US Environmental Protection Agency (EPA) Region 10. July 24, 1990.

- EPA 1993. Proposed Reissuance of a NPDES Permit to Discharge Pollutants Pursuant to the Provisions of the Clean Water Act. Fact Sheet for Cominco Alaska, Inc. (Red Dog Mine). EPA Region 10. December 27, 1993.
- EPA 1999. Fact Sheet for Proposed Reissuance of NPDES Permit to Hecla Mining Company, Grouse Creek Unit. EPA Region 10. November 24, 1999.
- EPA 2001. Bunker Hill CTP Discharge Quality and Monitoring Plan. Prepared by URS Greiner and CH2M Hill for EPA Region 10. June 2001.
- EPA 2002. NPDES Permit No. ID-002646-8. Hecla Mining Company – Grouse Creek Unit. January 8, 2002.
- EPA 2003. Notification of Stayed Permit Conditions, Hecla Mining Company, Lucky Friday Mine NPDES Permit No. ID-000017-5, Issued August 12, 2003. Letter from Randall F. Smith, EPA, to Mike Dexter, Hecla. October 1, 2003.
- EPA 2004. Notification of Remanded and Withdrawn Permit Conditions, Hecla Mining Company, Lucky Friday Mine NPDES Permit No. ID-000017-5, Issued August 12, 2003. Letter from Michael F. Gearheard, EPA, to Mike Dexter, Hecla. October 28, 2004.
- EPA 2005. Fact Sheet for Permit Remand and Modification Proceedings. EPA Region 10. June 21, 2005.
- IDEQ 2004a. 401 Certification regarding NPDES Permit No. ID-000017-5, Hecla Mining Company – Lucky Friday Mine and Mill, Mullan, Idaho. Letter from Toni Hardesty, IDEQ, to Robert R. Robichaud, EPA. July 15, 2004.
- IDEQ 2004b. Letter from Toni Hardesty, IDEQ, to Mike Gearheard, EPA.
- IDEQ 2005. 401 Certification regarding NPDES Permit No. ID-000017-5, Hecla Mining Company – Lucky Friday Mine and Mill, Mullan, Idaho, Total Suspended Solids Certification. Letter from Toni Hardesty, IDEQ, to Robert R. Robichaud, EPA. December 16, 2005.