# SUPERFUND STATE CONTRACT BETWEEN THE STATE OF MAINE AND THE U.S. ENVIRONMENTAL PROTECTION AGENCY FOR THE PERFORMANCE OF THE REMEDIAL ACTION AND OPERATION AND MAINTENANCE FOR THE OPERABLE UNIT 1 RECORD OF DECISION AND THE OPERABLE UNIT 2 EARLY ACTION AT THE CALLAHAN MINE SUPERFUND SITE IN BROOKSVILLE, MAINE

#### 1. GENERAL AUTHORITY

This Superfund State Contract ("Contract") is entered into pursuant to Sections 104(a)(1), (c)(2), (c)(3), (c)(6), (c)(9), (d)(1), and (d)(2) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. §§ 9604(a)(1), (c)(2), (c)(3), (c)(6), (c)(9), (d)(1), and (d)(2); the National Oil and Hazardous Substances Pollution Contingency Plan, as amended ("NCP"), 40 C.F.R. Part 300; other applicable Federal regulations, including 40 C.F.R. Part 35, Subpart O, and 40 C.F.R. Part 31; the Maine Hazardous Waste Septage and Solid Waste Management Act, 38 M.R.S.A. § 1301 <u>et seq.</u>; and the Maine Uncontrolled Hazardous Substance Sites Law, 38 M.R.S.A. §§ 1361-1371.

#### 2. PURPOSE

This Contract is an agreement between the U.S. Environmental Protection Agency ("EPA") and the State of Maine ("State"), acting by and through the Department of Environmental Protection ("MaineDEP") to implement Response activities at the Callahan Mine Superfund Site in Brooksville, Hancock County, Maine (the "Site"). A description of the Site and the Response actions to be taken in connection with the Site is attached hereto and incorporated herein by reference as Appendix A. This Contract covers those Response activities selected in the September 30, 2009 Record of Decision for the Operable Unit 1 ("OU1 ROD") and the Early Action Response activities for Operable Unit 2 at the Site described in the September 30, 2009 Memorandum re: Early Action for Operable Unit 2 ("OU2 Early Action"). The OU1 ROD is attached hereto and incorporated herein as Appendix B. The OU2 Early Action is attached hereto and incorporated herein as Appendix C. After the OU1 ROD was issued, EPA divided the work covered by the OU1 ROD into two separate operable units - OU1 and OU3. As a result, the OU1 ROD now covers the work to be performed under both OU1 and OU3. The Response activities covered by this Contract are also described in the Statement of Work (the "SOW"), attached hereto and incorporated herein as Appendix D. The purpose of this Contract is twofold. First, the State provides herein the assurances required by Sections 104(c)(3) and 104(c)(9)of CERCLA, 42 U.S.C. §§ 9604(c)(3) and 9604(c)(9). This Contract also contains the State's assurance that the State will accept transfer of an interest in any property that may be needed to conduct the Remedial Action, including any institutional controls at the Site, following completion of the Remedial Action, as required by CERCLA § 104(j). Second, this Contract sets forth EPA's and the State's obligations with respect to the Remedial Action and Operation and

Maintenance activities to be undertaken in accordance with Sections 104(d)(1) and 121(f) of CERCLA, 42 U.S.C. §§ 9604(d)(1) and 9621(f), Section 300.515(g) of the NCP, 40 C.F.R. § 300.515(g), and the OU1 ROD. This Contract constitutes the initial Superfund State Contract for the Site.

As described in a letter dated May 13, 2009, from Ira Leighton, EPA Region 1's Acting Regional Administrator, to David P. Littell, Commissioner of MaineDEP, and David A. Cole, Commissioner of Maine Department of Transportation ("MaineDOT"), regarding EPA's position on Maine's financial obligations for the Site, this Contract is one of the mechanisms necessary to memorialize EPA's and the State's work and financial obligations at the Site. The May 13, 2009 letter is attached hereto and incorporated herein by reference as Appendix E.

# 3. DEFINITIONS

As used in this Contract, unless the context clearly indicates otherwise, the following terms shall have the following meanings:

"EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.

"Operational and Functional" shall mean when EPA, after consultation with MaineDEP, determines that the Remedy is functioning properly and performing as designed, or one year after construction is complete, whichever is sooner.

"Operation and Maintenance" and "O&M" shall mean sampling, operating, repairing, servicing, and/or other measures necessary, including monitoring and/or enforcement of institutional controls, to maintain the effectiveness of the implemented Remedial Action, such measures being more particularly described in the OU1 ROD, OU2 Early Action, the SOW, and the Operation and Maintenance Plan ("O&M Plan"), and shall be consistent with the use of this term in CERCLA § 104(c)(6). Operation and Maintenance activities include long-term monitoring of the Site to evaluate the effectiveness of the Remedial Action. O&M shall commence upon the completion of the Remedial Action. O&M does not include 5-year reviews that are required by EPA under Section 121(c) of CERCLA, 42 U.S.C. § 9621(c).

"Operation and Maintenance Plan" and "O&M Plan" shall mean the plan to be developed by EPA to describe the activities that are required to operate and maintain the Remedial Action. The O&M Plan shall be based on the OU1 ROD, OU2 Early Action, and the SOW and will provide a more specific description of the O&M activities that will be required. A Long-Term Monitoring Plan shall also be developed as part of the O&M Plan.

"OU1 Record of Decision," "September 2009 Record of Decision" and "OU1 ROD" shall mean the Record of Decision for the Operable Unit 1 Remedial Action at the Callahan Mine Superfund

Site that was issued on September 30, 2009. The OU1 ROD covers the work to be performed under both OU1 and OU3.

"OU2 Early Action" shall mean the Memorandum re: Early Action for Operable Unit 2 that was issued on September 30, 2009.

"Project" shall mean the Response activities described in the OU1 ROD, OU2 Early Action, and the SOW.

"Response," "Remedy" and "Remedial Action" shall have the meaning provided for each term, respectively, under Section 101 of CERCLA, 42 U.S.C. § 9601.

"Site" shall mean the Callahan Mine Superfund Site as described in Appendix A.

"State" shall mean the State of Maine including all of its departments, agencies and instrumentalities.

"Work" shall include, but shall not necessarily be limited to, Remedial Action activities, O&M activities, and the long-term monitoring that are described in the OU1 ROD, OU2 Early Action, and the SOW.

## 4. DURATION OF THIS CONTRACT

A. This Contract shall become effective upon execution by EPA and the State.

B. Subject to 40 C.F.R. § 35.6820, this Contract may be terminated before the Response described herein is completed if EPA and the State jointly so agree in writing.

C. Subject to 40 C.F.R. § 35.6820, this Contract shall terminate upon the notification by EPA to the State that the Site has been removed from the National Priorities List.

#### 5. DESIGNATION OF PRIMARY CONTACTS AND THEIR RESPONSIBILITIES

A. This Contract is between EPA and the State, the latter acting by and through its MaineDEP.

B. EPA has designated:

Edward Hathaway, RPM U.S. Environmental Protection Agency 5 Post Office Square, Suite 100 Mail Code OSRR07-1

> Boston, MA 02109-3912 (617) 918-1372 hathaway.ed@epa.gov

to serve as Remedial Project Manager ("RPM") for this Contract. The designated RPM may be changed by a letter to the State, which change shall thereupon be deemed incorporated herein by reference without need for further amendment of this Contract.

C. The State has designated:

Naji N. Akladiss Department of Environmental Protection 17 State House Station Augusta, ME 04333 (207) 287-7709 Naji.N.Akladis@maine.gov

to serve as the State Project Manager ("SPM") for this Contract. The designated SPM may be changed by a letter to EPA, which change shall thereupon be deemed incorporated herein by reference without need for further amendment of this Contract.

D. The RPM shall be responsible for the overall administration of this Contract.

E. The RPM, after consultation with the SPM, may make changes to the Project that do not substantially alter the scope of the Response actions at the Site without need for amendment of the Contract, and that do not cause the Project cost to exceed the estimated Remedial Action cost in Paragraph 20.

F. Any disagreements between the RPM and SPM shall be resolved in accordance with the provisions of this Contract, as set forth in the Issue Resolution provisions contained in Paragraph 32, below.

#### 6. NEGATION OF AGENCY RELATIONSHIP

Nothing contained in this Contract shall be construed to create, either expressly or by implication, the relationship of agency between EPA and the State. EPA (including its employees, agents, and contractors) is not authorized to represent or act on behalf of the State in any matter relating to the subject matter of this Contract, and the State (including its employees, agents, and contractors) is not authorized to represent or act on behalf of EPA in any matter relating to this Contract.

#### 7. SITE DESCRIPTION

A description of the Site, including its location, background, chronology of events, physical characteristics (e.g., Site geology and proximity to drinking water supplies), the nature of the release (contaminant type and affected media), past Response actions at the Site by EPA, the State, or others, and the Remedial Action to be performed pursuant to this Contract at the Site, are set forth in Appendix A hereto and in the OU1 ROD (Appendix B) and the OU2 Early Action (Appendix C).

#### 8. RESPONSIBILITIES OF PARTIES

A. The State of Maine, acting by and through MaineDOT, through an Administrative Settlement Agreement and Order on Consent for Remedial Design for OU1 Record of Decision and OU2 Early Action (Docket No. CERCLA-01-2010-0013), is performing the Remedial Design, <u>i.e.</u>, designing the Remedial Action (as described in the OU1 ROD, OU2 Early Action, and the SOW), including the Final Design, for OU1 and OU3.

B. EPA shall consult with the State on the matters relating to the implementation of the Work described in Appendices A, B, C and D hereto, in accordance with Section 121(f) of CERCLA.

C. EPA shall perform the Remedial Action for OU1 and OU3, including the construction, performance testing, and initial operation of the Remedial Action. EPA shall also develop the final O&M Plan, including the Long-Term Monitoring Plan, as part of the Remedial Action. The State of Maine, however, shall develop the draft of each plan as part of the Remedial Design. EPA's responsibility for performing the Remedy (or a component of the Remedy, such as implementation of institutional controls) shall end when the Remedy (or the component of the Remedy) is determined to be Operational and Functional.

D. The State shall fulfill its CERCLA § 104(c)(3) cost-share obligations as set forth in Paragraph 21, below.

E. Section 104(c)(3)(A) of CERCLA provides that the State will assure all future maintenance of the removal and remedial actions provided for the expected life of such actions as determined by EPA. By entering into this Contract, the State agrees that the State shall implement all future O&M following the completion of the Remedial Action in accordance with the OU1 ROD, the OU2 Early Action, the SOW, and the O&M Plan (including the Long-Term Monitoring Plan), and that the State shall pay for all costs of O&M for the expected life of the Project, as set forth below.

F. The State hereby identifies MaineDEP as the organizational unit that shall be responsible for the State's O&M obligations. MaineDEP shall perform or arrange for the services of a contractor if necessary to perform the Operation and Maintenance Work, as will be described in the O&M Plan.

#### 9. SITE ACCESS, REAL PROPERTY INTERESTS, & CERCLA § 104(j) ASSURANCE

A. EPA and the State agree, to the extent of their legal authority, to secure access to the Site and adjacent properties, as well as all rights-of-way, easements and any and all property interests necessary to complete the Response activities undertaken pursuant to this Contract. The State agrees to provide EPA with access to any State property at or in the vicinity of the Site, including the waters and sediments of the State of Maine and the Holbrook Island Sanctuary, for the purpose of conducting Response activities.

B. The State agrees to make good faith efforts to acquire, through a voluntary transfer, any real property or any interest in real property needed to complete the response activities undertaken pursuant to this Contract, should it be necessary to perform all Response actions and O&M activities. In the event that the State is unsuccessful in acquiring any real property or any interest in real property needed to complete the response activities undertaken pursuant to this Contract through a voluntary transfer of such property or interest, EPA will exercise its authority under Section 104(j)(1) of CERCLA, as amended, to acquire the needed real property or interest in real property for itself and the State. The State agrees, in conformance with Section 104(j)(2) of CERCLA, as amended, to accept title to any real property or any interest in real property which EPA transfers to it, after completion of the Remedial Action. Both EPA and the State believe that there is no current need for any real estate acquisitions involving title transfer.

C. The State shall assist in obtaining any permits or approvals for EPA that are necessary to satisfactorily complete the Response action and shall obtain any permits or approvals necessary to satisfactorily complete the O&M.

D. In its acquisition of property rights or participation therein, the State assures that it will, to the extent of its legal authority, observe the land acquisition policies and provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, 42 U.S.C. §§ 4601-4655, and the regulations promulgated thereunder, 49 C.F.R. Part 24.

# 10. COORDINATION OF SITE ACCESS AND MUTUAL WAIVERS

During the implementation of the Work, whenever possible, representatives of MaineDEP shall coordinate visits to the Site in advance with the RPM. Similarly, whenever possible, the RPM will coordinate visits to the Site in advance with representatives of the State.

### A. EPA LIABILITY WAIVER

EPA shall not be responsible for any harm to any State representative or other person arising out of, or resulting from, any act or omission by the State in the course of an onsite visit.

### B. STATE LIABILITY WAIVER

The State shall not be responsible for any harm to any EPA representative or other person arising out of or resulting from any act or omission by EPA in the course of an on-site visit.

# 11. THIRD PARTY BENEFITS AND LIABILITY

# A. EXCLUSION OF THIRD-PARTY BENEFITS

This Contract benefits only the State and EPA. It extends no benefit or right to any third party not a signatory to this Contract.

# **B. LIABILITY**

EPA does not assume any liability to third parties with respect to losses due to bodily injury or property damages that exceed the limitations contained in the provisions of 28 U.S.C. §§ 1346(b), 2671-2680. Except as provided in and subject to the limitations of the Maine Tort Claims Act, 14 M.R.S.A. § 8103 et seq., the State does not assume liability to any third parties with respect to losses due to bodily injury or property damage.

#### 12. SITE-SPECIFIC PLANS

A site-specific Statement of Work or SOW, outlining the activities that are expected to be included in the Remedial Action and the O&M Plan (including the Long-Term Monitoring Plan), is attached hereto as Appendix D and incorporated herein by reference.

# 13. PROJECT SCHEDULE AND CHANGES

The Project schedule, which will be prepared as part of the Remedial Action, may be adjusted by the joint authority of the RPM and the SPM, without formal amendment of this Contract, unless there is an extended delay to the schedule. Changes that significantly alter the scope of Work, thereby affecting the State's ability to meet the conditions set out in this Contract, may necessitate an amendment to this Contract (see Amendability provisions in Paragraph 34, below).

#### 14. TECHNICAL AND PROGRESS REPORTS

The State shall supply the RPM with copies of all progress reports and technical reports generated through implementation of the O&M Plan (including the Long-Term Monitoring Plan). These progress reports shall include an explanation of the Work accomplished during the reporting period, delays and problems encountered, along with a description of anticipated corrective measures and resolutions. At a minimum, the State shall submit O&M and Long-Term Monitoring reports annually, unless the parties mutually agree to another interval. EPA shall be afforded a reasonable opportunity to review and comment on these reports.

### 15. RECORDS ACCESS AND INFORMATION ABOUT THE SITE

A. The State must ensure that all records in its possession concerning the Site are available to the public, with the exception of those documents that are confidential or privileged and are subject to an exclusion from disclosure under the Maine Freedom of Access Act, 1 M.R.S.A. § 401 et seq.

B. The State must comply with the requirements regarding records access described in 40 C.F.R. § 31.42(e). Contractors retained by the State to assist in the furtherance of the tasks outlined in this Contract shall be required by the State to comply with the requirements regarding records access described in 40 C.F.R. § 31.36(i)(10).

C. If any information is provided to EPA by the State with notice of a claim of confidentiality, it will be treated in accordance with 40 C.F.R. Part 2. EPA will not disclose information submitted by the State under a claim of confidentiality unless EPA is required to do so by Federal law and has given the State advance notice of its intention to release that information. Absent notice of such claim, EPA may make said information available to the public without further notice, subject only to the following limitation. Unless otherwise required by applicable law, any information which may potentially affect present or planned enforcement actions or investigations shall not be released to the public unless approved by both EPA's Region 1 Superfund Legal Office and the State.

#### 16. RECORDS RETENTION

All records related to the Site, including financial and programmatic records, supporting documents, and statistical records, must be maintained for a minimum of ten years following the issuance of the Certification of Completion of the Remedial Action (see Paragraph 29, below). If any litigation, claim, negotiation, audit, cost recovery, or other action involving the records has been commenced before the expiration of the ten-year period, the records must be retained until completion of the action and resolution of all issues which arise from it, or until the end of the regular ten-year period, whichever is later. Microform copying must be performed in accordance with the technical regulations and records management procedures contained in 36 C.F.R. Part 1230 and EPA Order 2160, respectively.

# 17. A STATEMENT OF INTENTION TO FOLLOW EPA POLICY AND GUIDANCE

In addition to the requirements specified in CERCLA and the NCP, all applicable program requirements (policy and guidance) cited in the Administrative Record or stated herein shall be adhered to.

## 18. FUNDING

If appropriated funds are not available to fulfill the State's obligations under this Contract, MaineDEP agrees to seek sufficient funding through the budgetary process, provided, however, that nothing in the Agreement shall obligate the State to violate any provision of the Maine Constitution, including payment of funds not appropriated by the legislature. EPA may, under the provisions of Section 104(d)(2) of CERCLA, seek in the appropriate court of competent jurisdiction to enforce this Contract or to recover any funds advanced or any costs incurred due to a breach of this Contract.

## 19. CERCLA ASSURANCE: COST SHARE

EPA has determined that, in accordance with Section 104(c)(3) of CERCLA, 42 U.S.C. \$ 9604(c)(3), and 40 C.F.R. \$ 35.6105(b)(2) and 35.6805(i)(5), a cost share of 10 percent of the cost of the Remedial Action at this Site is appropriate for the State's cost share. The State hereby assures EPA that it will pay its 10 percent cost share in accordance with the terms of this Contract, Section 104(c)(3) of CERCLA, 42 U.S.C. \$ 9604(c)(3), and 40 C.F.R. \$ 35.6105(b)(2) and 35.6805(i)(5).

## 20. ESTIMATED COST OF REMEDIAL ACTION

According to the OU1 ROD, the total cost for the remedy was estimated to be \$22.8 million. The estimated cost of the Remedial Action components is \$21.516 million as a present value in 2009 dollars using a 7% discount rate. This cost estimate includes the construction, shakedown,

and operational/functional testing of the Remedial Action. The estimated cost for the O&M activities is \$1.324 million based on 30 years present value in 2009 dollars using a 7% discount rate. EPA and the State recognize that the estimates developed for the OU1 ROD are subject to uncertainty, and that during the Remedial Design and Remedial Action, the cost estimates will be further refined. To address this uncertainty, an amount greater than the OU1 ROD estimate was established as the financial ceiling for the Contract. As set forth in Paragraph 21, \$30 million is the maximum financial obligation of the parties for the Remedial Action under this Contract.

### 21. FINANCIAL OBLIGATIONS OF THE PARTIES

A. The maximum financial obligation of the parties for Remedial Action under this Contract shall not exceed \$30 million. EPA shall pay 90% of the cost of the Remedial Action. The State shall pay 10% of the costs of the Remedial Action, not to exceed \$3 million, using cash, services, credits, or any combination of these. The State shall contribute 100% of the costs of the Operation and Maintenance activities detailed in the O&M Plan (including the Long-Term Monitoring Plan).

B. EPA and the State, respectively, shall, in addition to their contributions to the Work and acquisitions described in the SOW and the O&M Plan, be responsible, at their own cost and expense, for furnishing the necessary personnel, materials, services, and facilities, and for otherwise doing all things necessary for, or incidental to, the performance of their other obligations under the Contract, except as expressly provided herein to the contrary. None of the expenses incurred by the State in performing any of these other obligations shall be paid or reimbursed from the Hazardous Substance Superfund established by 26 U.S.C. § 9507; nor shall they be counted toward any costsharing requirements under this Contract or any future contracts or cooperative agreements related to the Site, except as expressly provided herein to the contrary.

C. Services—In accordance with 40 C.F.R. § 35.6285(b), and pursuant to any future cooperative agreement(s), the State may provide equipment and services to satisfy its cost share requirements. The State must comply with the requirements regarding in-kind and donated services described in 40 C.F.R. § 31.24.

D. Credits for State Actions

Any expense/cost for which the State will seek credit as payment for its share of the costs of the Response activities shall be subject to the following requirements:

(1) In accordance with 40 C.F.R. § 35.6285(b), and pursuant to any future cooperative agreement(s), the State may claim credit against its 10% cost share for site-specific expenses that EPA determines to be reasonable, documented, direct, out-of-pocket expenditures of non-federal funds for Remedial Action.

> (2) Any procurement by the State in the performance of its responsibilities under this Paragraph 21(D) shall be carried out in accordance with the standards set forth in 40 C.F.R. Part 35, Subpart O, and 5 M.R.S.A. Chapter 155 (Purchases), to the extent applicable. This shall include, but is not limited to, the minimum procurement requirements outlined in 40 C.F.R. §§ 35.6550-35.6610.

> (3) The State is responsible for maintaining a financial management system that shall record accurate, current, and complete disclosure of all costs incurred by the State in accordance with 40 C.F.R. Part 35, Subpart O. The State shall comply with the applicable administrative requirements set forth in 40 C.F.R. § 35.6815. The State is also bound by the provisions of OMB Circular A-87, which sets forth principles for determining allowable costs for State governments participating in federal grants and contracts. The State shall ensure that all costs are in compliance with Subpart C of 40 C.F.R. Part 31, are reasonable in nature, and are fully supportable and traceable in originating documentation.

(4) The eligibility and allowability of claimed costs shall be subject to verification by EPA. EPA may audit claimed costs during the course of the Response. Adequate supporting documentation shall be maintained by the State and shall be submitted to EPA upon request. If costs claimed by the State are disallowed by EPA, such costs shall not be included in determining the total cost of the Project or the State's contribution thereto. Disallowed costs also shall not count toward the State's cost-sharing obligation under any other CERCLA contract or assistance agreement with EPA for any site.

E. State expenditures of cash, services or credits do not ensure that Fund-financed remedial actions will be implemented by EPA at this Site.

F. As set forth in Paragraph 35, below, any excess cash, services and credits shall be addressed in accordance with 40 C.F.R. § 35.6285.

G. EPA shall provide the State with annual invoices and billings to recover the State's cost share (10%) of the cost of the Remedial Action, taking into account any allowable services and credits (see Paragraphs 21(C) and 21(D), above). Annual invoices and billings shall consist of incremental payments that amount to 10% of that year's accrued expenditures for the Remedial Action. In accordance with 40 C.F.R. § 35.6805, final payment of the State's full cost share must be made upon completion of all Remedial Action activities, with the exception of any change orders and claims handled during reconciliation of this Contract. The first invoice shall be submitted to the State in August of the year following the start of the Remedial Action. Invoices shall include financial summary reports. These documents shall be sent to the following address:

060

Callahan Mine Superfund Site Superfund State Contract for OU1 ROD and OU2 Early Action Page 12

> Naji N. Akladiss Department of Environmental Protection 17 State House Station Augusta, ME 04333 (207) 287-7709

F. Payments by the State shall be made to EPA no later than 75 days after receipt of each periodic billing. Payment shall be made payable to the U.S. Environmental Protection Agency and shall be sent to:

Environmental Protection Agency Region 1 - EPA New England Attn: Superfund Accounting, Callahan Mine Special Account P.O. Box 360197M Pittsburgh, PA 15251

Late payments shall be subject to interest and penalties in accordance with 40 C.F.R. § 31.52(b) and other applicable law.

# 22. EMERGENCY RESPONSE ACTIVITIES

Any emergency Response activities, or emergency circumstances, shall not be restricted by the terms of this Contract, including removal, per the NCP. However, Remedial Action activities may be suspended until the emergency activities are concluded, in which case the Response activities, cost share, or terms may be subject to amendment.

## 23. CERCLA ASSURANCE: 20-YEAR WASTE CAPACITY ASSURANCE

The State has submitted its Waste Capacity Assurance Plan to EPA. EPA deemed this Waste Capacity Assurance Plan adequate, pursuant to 40 C.F.R. § 35.6120, on July 24, 1992. The State hereby further assures EPA that hazardous waste treatment or disposal facilities with an adequate capacity for the destruction, treatment or secure disposition of all hazardous wastes that are reasonably expected to be generated within the State during the 20-year period following the date of this Contact are available and in compliance with the requirements of CERCLA § 104(c)(9), 42 U.S.C. § 9604(c)(9), and 40 C.F.R. § 300.510(e), which EPA through the execution of this Contract agrees is adequate.

24. CERCLA ASSURANCE: OFF-SITE STORAGE, TREATMENT, OR DISPOSAL

A. Off-site storage, destruction, treatment, or disposal of hazardous substances in connection with the implementation of the SOW and OU1 ROD may be necessary. The State hereby assures EPA of the availability of hazardous waste treatment or disposal

facilities that are in compliance with subtitle C of the Solid Waste Disposal Act, in accordance with the requirements of CERCLA §§ 104(c)(3) and 104(c)(9), 42 U.S.C. §§ 9604(c)(3) and 9604(c)(9), which EPA through the execution of this Contract agrees are adequate and acceptable.

B. EPA and the State anticipate that hazardous substances may have to be stored on-site prior to ultimate treatment or disposal of these hazardous substances. The costs of such storage during the period of O&M, including, without limitation, the costs of security, monitoring and analysis, shall be funded by the State.

C. All non-hazardous substances generated in the performance of the O&M Plan shall be handled and, if necessary, disposed of in accordance with applicable State requirements. The costs of such handling and, if necessary, disposal shall be funded by the State.

#### 25. NOTIFICATION OF TRANSFERS OF CERCLA WASTE

EPA or the State, as the case may be, must provide written notification prior to the off-site shipment of waste from the Site to an out-of-State waste management facility, in the manner prescribed in 40 C.F.R. § 35.6120(c), to:

A. The appropriate state environmental official for the state in which the waste management facility is located; and/or

B. The appropriate Indian Tribal official who has jurisdictional authority in the area where the waste management facility is located.

#### 26. JOINT INSPECTION OF THE REMEDY

A. A pre-final inspection will be conducted upon preliminary completion of the EPAlead Remedial Action (or a component of the Remedial Action, such as the implementation of institutional controls) at the Site. The pre-final inspection will be led by the RPM, and will include the SPM, EPA's contractor(s), and any subcontractor(s), as necessary.

B. The pre-final inspection will consist of a walk-through inspection of the entire Site. This inspection will survey the completed Work at the Site and shall determine whether the Remedial Action (or a component of the Remedial Action) is complete and consistent with the contract documents and the Remedy. EPA and the State will jointly determine if there are any outstanding construction items to be performed. An attempt shall be made to resolve all remaining issues informally.

C. EPA and its contractor(s) shall certify that the Remedial Action (or a component of the Remedial Action) has been performed to meet the purpose and intent of the design specifications and that all Response actions were completed in accordance with the OU1 ROD, the OU2 Early Action, the SOW, the Remedial Design, and all approved Site specifications.

D. Following the pre-final inspection, a pre-final inspection report will be provided by EPA to the State for review. The State's signature on the pre-final inspection report or a letter of concurrence shall constitute its agreement with the list of outstanding items to be completed, as specified therein.

E. A final inspection will be conducted upon completion of all outstanding construction items for the Remedial Action (or a component of the Remedial Action) at the Site. The final inspection will be led by the RPM. "As-built" plans of the remedy will be provided at the time of the final inspection. The SPM and all other parties from the pre-final inspection shall accompany the RPM on the final inspection.

F. The final inspection will consist of a walk-through inspection of the Site, with the inspection focusing on the outstanding construction items identified in the pre-final inspection. The RPM and the SPM will confirm that all outstanding items have been resolved. If any items are still unresolved, the inspection shall be considered a pre-final inspection requiring another pre-final inspection report.

G. Upon satisfactory completion of the final inspection, EPA will provide to MaineDEP a copy of the Remedial Action Summary Report. The Remedial Action Summary Report will be reviewed by the State and EPA. The RPM will work with the SPM to obtain the State's acceptance that the Remedial Action (or a component of the Remedial Action) is complete and performing adequately. The date on which the Remedy (or a component of the Remedy) is considered Operational and Functional shall be memorialized in a letter from the RPM to the SPM. In the event that EPA and MaineDEP disagree on whether the Remedy (or a component of the Remedy) is Operational and Functional, then EPA and MaineDEP agree to invoke the Issue Resolution provisions contained in Paragraph 32. At the conclusion of the Issue Resolution process, the date on which the Remedy (or a component of the Issue Resolution and Functional shall be determined and set forth in the final decision of EPA's Director of the Office of Site Remediation and Restoration.

# 27. CERCLA ASSURANCE: OPERATION AND MAINTENANCE

A. Section 104(c)(3)(A) of CERCLA provides that the State will assure all future Operation and Maintenance of the Response actions at the Site. By entering into this Contract, subject to the exceptions and conditions set forth herein, the State hereby

assures EPA that it will assume responsibility for the Operation and Maintenance of the implemented CERCLA-funded Remedial Action for the expected life of the action, and that all costs of Operation and Maintenance shall be paid for by the State.

B. The State shall implement Operation and Maintenance in accordance with the Site's O&M Plan (including the Long-Term Monitoring Plan). O&M shall include:

- Inspections, monitoring and other actions necessary to ensure the effectiveness and functioning of the cover system, drainage features, confined aquatic disposal ("CAD") cell, and institutional controls after those components of the Remedial Action are determined to be Operational and Functional;
- Maintenance of the cover system, drainage features, and any treatment system, following the Operational and Functional determination.
- Inspections to confirm compliance with the institutional controls.

C. The State identifies MaineDEP as the organizational unit that shall be responsible for the State's Operation and Maintenance obligations.

D. The State agrees to be bound by the O&M Plan, including the Long-Term Monitoring Plan. The State may propose changes to these documents to reflect the future requirements at the Site subject to EPA's right to review and comment and invoke Issue Resolution.

# 28. PERSONAL PROPERTY

The State agrees that it will accept title to all personal property, <u>i.e.</u>, equipment, used as all or part of the Remedy. EPA shall no longer have an interest in fixed-in-place equipment once the equipment is installed.

# 29. CERTIFICATION OF COMPLETION OF THE REMEDIAL ACTION

Once the Remedial Action is considered Operational and Functional, EPA will prepare a draft Certification of Completion of the Remedial Action ("Certification of Completion"). This Certification of Completion will certify that the Remedial Action has been fully performed and that the cleanup standards have been attained, and will include a final accounting of all Project costs. The draft Certification of Completion will be provided to MaineDEP for review. The RPM will coordinate, with the SPM, the State's acceptance that the Remedial Action is complete. The RPM will issue the final Certification of Completion, subject to the State's right

to invoke Issue Resolution. At the conclusion of the Issue Resolution process, the final Certification of Completion will be issued.

#### **30. RESPONSIBLE PARTY ACTIVITIES**

If at any time during the period of this Contract a responsible party comes forward to perform any Work covered by this Contract, and is considered qualified by both EPA and MaineDEP to conduct Work, this agreement may be amended or terminated.

#### 31. ENFORCEMENT, LITIGATION, AND COST RECOVERY

A. This Contract does not constitute a waiver of EPA's right to bring an action against any person or persons for liability under Sections 106 or 107 of CERCLA, or any other statutory provision or common law. This Contract also does not constitute a waiver of the State's right to bring an action against any person or persons for liability under Section 107 of CERCLA, or any other statutory provision or common law.

B. EPA and the State may be entitled to assert claims against a third party (herein referred to as a "potentially responsible party" or "PRP," whether one or more parties) for reimbursement of any services, materials, monies or other thing of value expended by EPA or the State for Fund-financed Response activity, related to the Remedial Action and/or Operation and Maintenance described in the SOW and the O&M Plan, at the Site.

(1) EPA and the State hereby agree that they shall cooperate in and coordinate efforts to recover their respective costs of Response actions taken at the Site, including the negotiation of settlement and the filing and management of any judicial actions against a PRP. EPA and the State also hereby agree that neither shall enter into a settlement with, or initiate a judicial or administrative proceeding against, a PRP for the recovery of such sums, except after having given notice in writing to the other party to this Contract sixty days prior to the date of proposed settlement or commencement of the proposed judicial or administrative proceedings.

(2) Neither party to this Contract shall attempt to negotiate for, or collect, reimbursement of any Contract-specific Response costs related to the Remedial Action and/or O&M described in the SOW and the O&M Plan at the Site on behalf of the other party, and authority to do so is hereby expressly negated and denied.

#### **32. ISSUE RESOLUTION**

A. In the event technical difficulties arise at the Site or questions are raised about any terms in this Contract, the RPM and the SPM will seek resolution through their respective chains of command. Note that matters unrelated to this Contract, such as those between the State and other Federal agencies, are not subject to the terms of this Contract, which is a bilateral agreement.

B. Any disagreements arising under this Contract shall be resolved to the extent possible by the RPM and the SPM.

C. If any such disagreement cannot be resolved by the RPM and the SPM, it shall be referred, as necessary, in EPA to the Chief of the Office of Site Restoration and Remediation I Branch and in MaineDEP to the Director of the Division of Remediation, and subsequently, for a final resolution, to EPA's Director of the Office of Site Remediation and Restoration and the State's Commissioner of the Department of Environmental Protection. EPA and the State agree that the final decision shall be issued by EPA's Director of the Office of Site Remediation and Restoration and Restoration and Restoration and Restoration and the State agree that the final decision shall be issued by EPA's Director of the Office of Site Remediation and Restoration and shall be binding on both parties.

D. Contractual resolutions and final audit determinations affecting this CERCLA-funded Remedial Action shall be binding on both EPA and the State and may require written amendment of this Contract (see Paragraph 34 (Amendability), below).

### 33. REMEDIES FOR FAILURE TO COMPLY WITH TERMS OF THIS CONTRACT

If the State fails to comply with the terms of this Contract, any CERCLA assurance, and/or the negotiated payment terms, EPA may proceed under the provisions of Section 104(d)(2) of CERCLA and shall seek to enforce this Contract in the appropriate court of competent jurisdiction. If EPA breaches this Contract, the State may file suit and seek remedies in the appropriate court of competent jurisdiction.

#### 34. AMENDABILITY

This Contract may be amended for reasons including, but not limited to, the revision of terms to reflect modifications to the Remedial Action activities. Formal amendment of this Contract is required when alterations to CERCLA-funded activities are necessary, or when alterations impact the State's assurances pursuant to the NCP and CERCLA. Such amendments must include a site-specific SOW for the amendment, which should include estimated costs per task. Should CERCLA be revised or amended to supersede or modify the NCP or should EPA amend or modify the NCP in a manner which affects the duties of the State under this Contract, this Contract shall be modified consistent with the result of the amendment. Any change(s) in this

Contract must be agreed to, in writing, by the signatories, except as provided in this Contract, and must be reflected in all Response agreements affected by the change(s).

# 35. RECONCILIATION PROVISION

This Contract shall remain in effect until the financial settlement of Project costs and final reconciliation of response costs (including all change orders, claims, overpayments, reimbursements, etc.) ensures that both EPA and the State have satisfied the cost share requirement contained in Section 104 of CERCLA. Overpayments made under this Contract may not be used to meet the cost-sharing obligation at another site. To the extent that the State paid EPA more than its cost-share (10%) of all Remedial Action costs, as calculated in accordance to Paragraph 21, EPA shall reimburse the difference to the State as promptly as possible in accordance with 40 C.F.R. Part 35, Subpart O.

# 36. TERMINATION OF THIS CONTRACT

A. Subject to 40 C.F.R. § 35.6820, this Contract may be terminated upon completion of the Response activities, for cause, or for failure to comply with its terms. The parties may enter into a written termination agreement, which will establish the effective date for the termination of this Contract, the basis for settlement of termination costs, and the amount and due date of any sums owed to either party. Such reconciliation costs will include all Project costs incurred, as well as any close-out costs.

B. If, at any time during the period of this Contract, performance of all or part of the Work described in the SOW is undertaken for any reason by persons or entities other than EPA, the State, or their employees, agents or contractors, then this Contract shall be modified or terminated as appropriate to allow these actions. Upon such modification or termination, the parties to this agreement shall be relieved from the obligation to perform those actions undertaken by persons or entities not a party to this Contract.

C. If not terminated at an earlier time, this Contract shall terminate upon de-listing of the Site by EPA.

### **37. APPENDICES AND AMENDMENTS**

- Appendix A: Site Description and Description of the Remedy
- Appendix B: OU1 Record of Decision
- Appendix C: OU2 Early Action
- Appendix D: Statement of Work
- Appendix E: May 13, 2009 Letter from EPA's Ira Leighton to MaineDEP's David P. Littell and MaineDOT's David A. Cole

In witness whereof, the parties hereto have executed this Contract in three (3) copies, each of which shall be deemed an original.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

By:

Date: lynt 2, 2010

James T. Owens, III Director Office of Site Remediation and Restoration U.S. Environmental Protection Agency, Region 1 Boston, Massachusetts 068

Callahan Mine Superfund Site Superfund State Contract for OU1 ROD and OU2 Early Action Page 20

In witness whereof, the parties hereto have executed this Contract in three (3) copies, each of which shall be deemed an original.

STATE OF MAINE

By:

Date: 28 Tuly 2010

David P. Littell, Commissioner Department of Environmental Protection State of Maine

# APPENDIX A SITE DESCRIPTION AND DESCRIPTION OF THE REMEDY

Callahan Mine Superfund Site Brooksville, Hancock County, Maine MED980524128 Site ID No: 0101028 Operable Unit 1 Record of Decision and Operable Unit 2 Early Action

The Callahan Mine Superfund Site ("Site") is located in the village of Harborside in the Town of Brooksville, Maine. The Site is located on the northwest side of the Cape Rosier peninsula on Penobscot Bay and is approximately 15 miles west of the Town of Blue Hill and 35 miles west of the Town of Bar Harbor. The former Callahan Mine was operated as an open-pit zinc/copper mine and was perhaps the only intertidal mine in the world during the time that it operated. The mining operation and facilities were developed adjacent to and beneath the Goose Pond tidal estuary. The Site includes: the 120-acre former Callahan Mine property, which includes the former industrial operations area, a series of waste rock piles, and a tailings impoundment; Goose Pond, which includes Dyer Cove, the submerged former Mine Pit, Stink Cove, and the wetlands within Goose Pond; Goose Cove; and the Residential Use Area. The waste rock piles and operational areas are for the most part unvegetated and barren. In addition to the four seasonal homes on Old Mine Lane in the Residential Use Area of the Site, private residences and seasonal homes are located adjacent to the former Callahan Mine property on Goose Falls Road and Cape Rosier Road. The Holbrook Island Sanctuary State Park is immediately east of the Site. Site coordinates are 44° 21' 05.9" north latitude and 68° 48' 35.5" west longitude.

For the Callahan Mine Superfund Site, EPA created two Operable Units. Operable Unit 1, as specified in the September 30, 2009 Operable Unit 1 Record of Decision ("OU1 ROD"), will target the following threats to human health and the environment:

- Soil and waste contaminated with PCBs;
- Soil and waste that represent the most significant threat to surface water, sediments, and groundwater (Ore Pad, Mine Operations Area, Waste Rock Pile 3, and Tailing Impoundment);
- Areas of sediment that were shown to be acutely toxic and represent a food chain threat (Southern Goose Pond and adjacent salt marsh); and
- Soil and waste contaminated with lead and arsenic in areas with current residential use.

The selected remedy for Operable Unit 1 includes the following major components:

- Pre-design investigations and studies;
- Tailings Impoundment Cover System with stabilization measures, possibly including a toe shear key or buttress;
- Development of an on-site quarry to supply material for the Tailings Impoundment Cover System;
- Horizontal drain or other drainage methods (<u>e.g.</u>, vertical wells or drains) within Tailings Impoundment, passive treatment (or other treatment methods) of the discharge from the horizontal drain or other drainage methods (<u>e.g.</u>, vertical wells or drains) in a constructed wetland;
- Excavation and subaqueous disposal of WRP-3, Ore Pad, and Mine Operations Area source material in the confined aquatic disposal ("CAD") cell in the former mine pit;
- Excavation of soil containing arsenic and lead exceeding site-specific cleanup levels in the Residential Use Area of the Site and subaqueous disposal in the CAD cell in the former mine pit;
- Excavation and off-site disposal of soil contaminated with polychlorinated biphenyls ("PCBs") exceeding site-specific PCB cleanup levels identified in Table 57 of the OU1 ROD;
- Excavation and off-site disposal of petroleum-contaminated soil commingled with CERCLA waste (PCB-contaminated soil exceeding site-specific PCB cleanup levels);
- Dredging of Goose Pond and salt marsh sediment exceeding site-specific sediment cleanup levels identified in Table 58 of the OU1 ROD and subaqueous disposal in the CAD cell in the former mine pit;
- Establishment of institutional controls to protect the components of the remedy (including caps, treatment wetlands, monitoring wells, and the CAD cell);
- Mitigation, restoration, and compensation for wetland impacts, including the dredging and subaqueous disposal of Dyer Cove and Goose Cove sediment that contains mine waste in the CAD cell in the submerged former mine pit, along with other measures that may be identified in Remedial Design;
- Installation of monitoring wells (if warranted);
- Long-term operation and maintenance; and monitoring; and
- Five-year reviews.

After the OU1 ROD was issued, EPA divided the work covered by the OU1 ROD into two components:

• "New" Operable Unit 1 (hereinafter "OU1") shall include the activities associated with the excavation and on-site disposal of lead, arsenic, and thallium contamination in the Residential Use Area and the excavation and off-site disposal of the PCBs and commingled petroleum contamination in the Mine Operations Area; and

• Operable Unit 3 ("OU3") shall include all other components of the "old" OU1, as discussed in the OU1 ROD.

As a result, the OU1 ROD now covers the work to be performed under both OU1 and OU3.

Operable Unit 2 ("OU2") will address all other areas and media at the Site where risks to human health or the environment are present that are not addressed by OU1. In addition to the OU1 Remedial Action described in the OU1 ROD, an Early Action will also be implemented for OU2. The OU2 Early Action will address the future potential threat from ingestion of groundwater and direct contact with contaminated soil/waste within the former Callahan Mine property portion of the Site. A current State ban on the harvesting of clams, oysters, and mussels in Goose Pond and Goose Cove will be incorporated into the OU2 remedy as part of the OU2 Early Action until such time as any risks to human health from consumption of these species is assessed through the OU2 ROD. The OU2 Early Action includes the implementation of land use restrictions on the former Callahan Mine property portion of the Site to:

- Prevent the installation of water supply wells; and
- Prevent residential development.

The remaining components of OU2 will address Site-wide groundwater and soil contamination, as well as the potential risks posed from the consumption of clams, oysters, and mussels. OU2 will also evaluate whether the contamination of two adjacent water supply wells is related to the Site. OU2 will also evaluate the success of OU1 and OU3 to determine whether any additional actions are necessary to address any remaining risks posed by surface water and sediment after implementation of the OU1 remedy. The OU1 Remedial Investigation Report, including the Human Health Risk Assessment ("HHRA") and Baseline Ecological Risk Assessment ("BERA"), evaluated the entire study area for OU1, OU3 and OU2. A supplemental Remedial Investigation Report and revised HHRA and BERA reports may be developed for OU2 if the information collected prior to the completion of the OU2 RI/FS suggests that such a revision is necessary.

> APPENDIX B RECORD OF DECISION FOR CALLAHAN MINE SUPERFUND SITE OPERABLE UNIT 1 SEPTEMBER 30, 2009

# APPENDIX C EARLY ACTION FOR CALLAHAN MINE SUPERFUND SITE OPERABLE UNIT 2 SEPTEMBER 30, 2009





#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 1 1 Congress Street, Suite 1100 BOSTON, MA 02114-2023



SDMS DocID

457915

#### MEMORANDUM

Date: September 30, 2009

Subject: Early Action for Operable Unit 2 at the Callahan Mine Superfund Site, Brooksville, Maine

From: Mary Jane O'Donnell, Chief M.J. O.M. ME/VT/CT Superfund Section JJ O.M. Office of Site Remediation and Restoration (OSRR)

To: Site File

### SITE NAME AND LOCATION

Callahan Mine Superfund Site Brooksville, Hancock County, Maine MED980524128 Site ID No: 0101028 Operable Unit 2

### STATEMENT OF BASIS AND PURPOSE

This memorandum documents EPA's decision to implement an Early Action for Operable Unit 2 (OU2) at the Callahan Mine Superfund Site in Brooksville, Maine (the Site). The Early Action is being implemented in accordance with the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (CERCLA), 42 USC § 9601 *et seq.*, and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan, 40 CFR Part 300, as amended (NCP). EPA will finalize the Early Action as part of the OU2 Record of Decision to be issued at a later date.

The Early Action decision is based on the information contained in the Administrative Record for the OU1 Record of Decision (ROD), which was developed in accordance with Section 113(k) of CERCLA, and which is available for review at the Brooksville Library, Brooksville, Maine, and at the EPA OSRR Records Center in Boston, Massachusetts.

The Maine Department of Environmental Protection (Maine DEP) supports the implementation of the Early Action.

Superfinal Decords Center

:: Callahan Mine 1. 54 611: 457915

075

A description of EPA's proposed Early Action for OU2 was included in the Proposed Plan for OU1, which was issued for public comment. No public comments were received in opposition to the proposed Early Action.

# SUMMARY OF SITE CONDITIONS THAT WARRANT EARLY ACTION

OU2 for the Callahan Mine Superfund Site will address all site-wide threats relating to groundwater, soil, sediment, and biota. The OU2 RI/FS will continue until the risk reduction accomplished by OU1 can be assessed, or predicted, to allow OU2 to identify the need for any additional remedial action at the Site.

The OU1 Remedial Investigation (RI) Report and Human Health Risk Assessment (HHRA) for the Site documented the presence of Site related hazardous substances in the groundwater and soil at levels that would not allow for unrestricted use. The HHRA conclusions for the OU2 are listed below:

Soil

For current recreational use of the former Callahan Mine portion of the Site, after removal of the PCB contamination as a result of the implementation of OU1, the cancer, non-cancer, and lead IEUBK model output for exposure to soil would be within the EPA acceptable risk level. No groundwater use or shellfish consumption<sup>1</sup> was assumed under the current recreational Site use.

For future residential use of the former Callahan Mine portion of the Site, after removal of the PCB contamination as a result of the implementation of OU1, the noncancer risk from exposure to lead in soil was assessed using the IEUBK model which estimated a mean blood lead level of 9.5  $\mu$ g/dl and that 45.8% of the population would have a blood lead level above 10  $\mu$ g/dl. This would exceed the EPA policy threshold to protect 95% of the sensitive population against blood lead levels in excess of 10  $\mu$ g/dl blood. Tables 1 and 2 present the estimated cancer and non-cancer risk estimated for the future resident scenario for the OU1 ROD.

# Groundwater

For future residential use of the former Callahan Mine portion of the Site, the installation of a water supply well and consumption of groundwater would result in an unacceptable risk to human health. Table 3 present the groundwater data and risk levels from exposure to contaminated groundwater.

# Sediment/Biota

Based on a request from EPA, the Agency for Toxic Substances and Disease Registry (ATSDR) reviewed the clam tissue results for the Site. ATSDR provided a health

<sup>&</sup>lt;sup>1</sup> The State has imposed a ban on the harvest of clams, oysters, and mussels along the coast in the Harborside area due to pollution. The ban includes all of Goose Cove and Goose Pond. See Closed Area No. 36, Bagaduce River and Harborside (Castine, Penobscot, Brooksville) (DMR Chapter 95.04(C))."

consultation report to EPA on October 24, 2008 that contained the following conclusions and recommendations:

- Exposures to lead contaminated clams could potentially result in harmful health effects in children if current fishing restrictions are lifted in the area.
- The levels of lead in cooked clam tissue samples exceeded the FDA safety tolerance level and the maximum value of lead found in the total diet study.
- The average levels of lead in cooked clam tissue samples from the Site ranged from 0.67-28 mg/kg. The maximum lead concentration in cooked tissue was 37.4 mg/kg in a single run. Those levels are within the same order of magnitude as the data ATSDR reviewed in June 2008.
- The decision to use the IEUBK model to determine PRGs is a regulatory decision and beyond the scope of ATSDR's public health evaluation of the site-specific exposure scenario. ATSDR understands that when deriving site-specific PRGs for lead, EPA also considers aspects such as site-specific variability in exposure, lead geochemistry, and projected land use. EPA may also factor in other considerations such as cost, technical feasibility, compliance with state and federal regulations, and community acceptance.
- ATSDR recommended to EPA that individuals continue to adhere to the fish and shellfish consumption restrictions and advisories that already exist in the area.

The OU1 remedy will address the major threats to public health and the environment. Figure 4 from the OU1 ROD, which is attached, shows the areas of the Site. Under the current Site land use assumptions for the former Callahan Mine portion of the Site (which are recreational use, no shellfish consumption, and no consumption of groundwater) the OU1 Human Health Risk Assessment did not identify a threat to human health. Nonetheless, it is possible that prior to the issuance of the OU2 ROD, the shellfish ban could be removed, a residence could be constructed, or a water supply well could be installed within the OU2 area. This could result in the consumption of clams, oyster, and mussels within Goose Cove and Goose Pond, exposure to soil, or groundwater ingestion that could result in the transition of several future potential unacceptable threats to current threats. These include:

- If the former Callahan Mine portion of the Site, which is currently undeveloped, were to be subject to residential development, then the levels of lead would exceed the EPA acceptable risk threshold for residential exposure to lead.
- If water supply wells were to be installed within the former Callahan Mine portion of the Site, there would be an unacceptable threat from ingestion of groundwater.
- If the prohibition on harvesting clams, oyster, and mussels were to be removed, it is possible that individuals could consume shellfish at a frequency that could result in an unacceptable threat from ingestion of lead contaminated shellfish.

# EARLY ACTION FOR OU2

In order to protect the public from an unacceptable threat to human health that would occur if land use were to change at the Callahan Mine Superfund Site, EPA is implementing an Early Action to implement land use restrictions to prevent future residential use and to prevent the installation of water supply wells. The land use restrictions will be in the form of a restrictive covenant that will be placed on the former Callahan Mine property, with local and/or State ordinances or zoning to supplement the property restriction. EPA also is incorporating the current State of Maine ban on the harvesting of clams, oysters and mussels as a component of the OU2 CERCLA remedy.

These measures can be taken now, well ahead of the time that a final remedy will be selected for OU2 of the Callahan Mine Superfund Site, to ensure that human health is protected from identified risks at the Site. This Early Action is consistent with any future remedial measures that may eventually be selected for OU2.

Figure 5 from the OU1 ROD, which is attached, shows the area that would be subject to land use restrictions to prevent future residential use or groundwater use within the former Callahan Mine portion of the Site using existing data. The design for this Early Action will identify the extent of the former Callahan Mine property portion of the Site that exceeds the residential cleanup levels for arsenic and lead identified in the OU1 selected remedy and the extent of groundwater that exceeds MCLs, MCLGs, MEGs, or risk-based standards in the absence of these. Table 4 lists the soil cleanup levels established in the OU1 ROD. Figures 8 and 9 from the OU1 ROD are also attached to show the extent of groundwater contamination and the areas to be addressed by OU1. The State's harvest ban on clams, oysters, and mussels encompasses all of Goose Pond and the areas of Goose Cove within OU2.

Table 1
Non-Carcinogenic Human Health Risk from OU1 Record of Decision
Future Exposure to Soil within Former Callahan Mine Portion of Site

Medium	Exposure Medium		Chemical of Concern	Primary Target Organ	Non-Carcinogenic Hazard Quotient			
					Ingestion	Inhalation	Dermal	Exposure Routes Tota
Soil	Soil	Source Area Soil Waste	PCB- Aroclor 1242	Immune system/ immunoto xicity	180	-	70	250
			PCB- Aroclor 1248	Immune system/ immunoto xicity	160	-	64	224
			Arsenic	Keratosis (skin)	2	0.0006	0.2	2.2
			Lead	CNS/PNS		-	-	
			Thallium	Liver	0.2	-	-	0.2
						Soil Hazar	d Index Total =	476
						Receptor 1	Hazard Index =	476
					Maximum	n Tissue-Specific l	Hazard Index =	474
N/A: Route CNS/PNS:	of exposure is	not applicable s System/Periph	uantitatively add to this medium. heral Nervous Sys		of exposure.			

noncancer effects. The estimated HI of 476 indicates that the potential for diverse noncancer effects could occu from exposure to contaminated soil containing PCBs. The maximum tissue-specific hazard index is 474 for effects of PCBs on Immune system/ immunotoxicity and 2 for arsenic.

The OU1 remedy will remove the risk associated with exposure to PCBs. The lead risk described below will remain after completion of the OU1 remedy.

The noncancer risk from exposure to lead in soil was assessed using the IEUBK model which estimated a mean blood lead level of 9.5 ug/dl and that 45.8 percent of the population would have a blood lead level above 10 ug/dl. The maximum tissue-specific hazard index is 2 for Keratosis (skin) due to exposure to arsenic arsenic.

Table 2
Carcinogenic Human Health Risk from OU1 Record of Decision
Future Exposure to Soil within Former Callahan Mine Portion of Site

Scenario Ti	imeframe: Fu	uture Recepto	<b>Risk Characteriz</b> or Population: Resider		Age: Child (1-6				
Medium	Exposure	Exposure Point	Chemical of Concern	Carcinogenic Risk					
	Medium			Ingestion	Inhalation	Dermal	External (Radiation) <sup>1</sup>	Exposure Routes Total	
Soil	Soil	Source area	PCB – Aroclor 1242	6x10 <sup>-4</sup>	5x10 <sup>-9</sup>	2x10 <sup>-4</sup>	-	8x10 <sup>-4</sup>	
		soil/waste	PCB – Aroclor 1248	6x10 <sup>-4</sup>	5x10 <sup>-9</sup>	2x10 <sup>-4</sup>		8x10 <sup>-4</sup>	
			Arsenic	8x10 <sup>-5</sup>	7x10 <sup>-9</sup>	7x10 <sup>-6</sup>		8x10 <sup>-5</sup>	
			Lead						
				S	oil Risk Total fo	or young (1-6	year old) child	2 x 10 <sup>-3</sup>	
Scenario Ti	imeframe: C	urrent Recepto	or Population: Reside	ent Receptor	Age: Adult (age	7-30 years old	d)		
Medium	Exposure Medium	Exposure Point	Chemical of Concern	Carcinogenic Risk					
Soil	Soil	Source area soil/waste		Ingestion	Inhalation	Dermal	External (Radiation) <sup>1</sup>	Exposure Routes Total	
			PCB – Aroclor 1242	3x10 <sup>-4</sup>	8x10 <sup>-9</sup>	1x10 <sup>-4</sup>	-	4x10 <sup>-4</sup>	
			PCB – Aroclor 1248	2x10 <sup>-4</sup>	7x10 <sup>-9</sup>	1x10 <sup>-4</sup>		3x10 <sup>-4</sup>	
			Arsenic	3x10 <sup>-5</sup>	8x10 <sup>-9</sup>	3x10 <sup>-6</sup>		3x10 <sup>-5</sup>	
			Lead						
						Soi	l risk for adult	8x10 <sup>-4</sup>	
					Soil ri	sk total for ac	lult and child=	3x10 <sup>-3</sup>	
N/A: Route		s not applicabl	o quantitatively address le to this medium.	s this route of ex	posure.				
				<b>k Characteri</b>					
			ord of Decision and						
			te to a future reside taking into accou						
			o ground water, as						
			soil, including inh						
from 2 x	10 <sup>-3</sup> for a yo	oung child t	$0.8 \ge 10^{-4}$ for an ad	lult. A perso	n living on th	e Site as a c	child and adult	over a thirty	
year perio	od would ha	we a carcin	ogenic risk of 3 x	10 <sup>-3</sup> . This ris	k level indica	tes that if n	o clean-up act	ion is taken,	
			reased probability	of 3 in 1000	of developing	cancer as	a result of site	-related	
exposure	to the COC	ĊS.							

The OU1 remedy will remove the risk associated with exposure to PCBs. An excess cancer risk due to arsenic of  $1.1 \times 10^{-4}$  will remain after completion of the OU1 remedy.

#### 080

		A	suming	Future Us	e of Grou	muwater		
						Future	Future	Background
				EPA		potential	potential	Total
				Health		excess	non-	
				Ad-		Cancer	cancer	
				visory		Risk	Risk	
							Hazard	
	EPC	MCL	MCLG		MEG		Quotient	
	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)			(mg/L)
Overburden		Т	-					
Aluminum	86	NA	NA	NA	1.43		6	0.377
Antimony	0.008	0.006	0.006	NA	0.003		1.3	ND
Arsenic	0.0452	0.010	0	NA	0.010	3.7E-04	10	ND
Cadmium	1.2	0.005	0.005	NA	0.0035		170	0.0029
Chromium	0.144	0.100	0.100	NA	0.040		4	ND
Copper	0.848	1.3	1.3	NA	1.3		1.4	0.0821
Lead	1.13	0.015	0	NA	0.010		>EPA	0.012
							action	
							level	
Manganese	7.75	NA	NA	0.3	0.5		22	0.0744
Thallium	0.0014	0.002	0.0005	NA	0.0005		1.1	ND
Vanadium	0.0917	NA	NA	NA	NA		1.3	ND
Zinc	98.5	NA	NA	NA	2		21	0.706
Bedrock Groundwater								
Arsenic	0.005	0.010	0	NA	0.010	4.1E-05	1.1	ND
Cadmium	0.165	0.005	0.005	NA	0.0035		23	0.0029
Copper	14.1	1.3	1.3	NA	1.3		23	0.0821
Manganese	9.75	NA	NA	0.3	0.5		27	0.0744
Zinc	42.9	NA	NA	NA	2		9	0.706

Table 3Summary of Groundwater Threats to Human Health<br/>Assuming Future Use of Groundwater

The background data are provided in Appendix A of the OU1 RI Report and are based on bedrock groundwater. NA - Not Available

NA - Not Available

ND - Not Detected

mg/L - milligrams per liter EPC - Exposure Point Concentration

MCL - USEPA Maximum Contaminant Level

MCLG - USEPA Maximum Contaminant Level Goal

MEG - Maine CDC Maximum Exposure Guidelines for Drinking Water

HI - Hazard Index

Table 4	
Clean Levels for Soil from OU1	<b>Record of Decision</b>

	Back- ground (mg/kg)	Soil Cleanup Level (mg/kg)	Basis	Risk at Cleanup Level HQ / ELCR
<b>Residential Clean</b>	-		1	T
Arsenic	14	14	Background	HQ = 0.2 ELCR = 5.8x10 <sup>-6</sup>
Lead	37	375	Maine State Safe Lead level and site-specific IEUBK model output	Using this level as the maximum concentration, then 95% of exposed population should have a blood lead level that does not exceed 10 $\mu$ g/dl based on this cleanup level.
Polychlorinated biphenyls	Not applicable	1	TSCA and site-specific risk basis to allow for unrestricted future use	HQ = 0.4 ELCR = 1.9x10 <sup>-6</sup>
Thallium	0.12	15	Site-specific risk basis for noncancer exposure	HQ = 1 ELCR = n.a.
				$HI = 1.6$ Cumulative ELCR = $7.7 \times 10^{-6}$
<b>Recreational Clea</b>	nup Level			
Arsenic	14	30	Risk-management decision to accept 1x10 <sup>-5</sup> ELCR for arsenic	HQ = 0.2 ELCR = 1.2x10 <sup>-5</sup>
Lead	37	700	Maine Remedial Action Guideline <sup>[1]</sup> and site- specific IEUBK model output	95% of exposed population should have a blood lead level that does not exceed 10 $\mu$ g/dl based on this cleanup level.
Polychlorinated biphenyls	Not applicable	1	TSCA and site-specific risk basis to allow for unrestricted future use	HQ = 0.1 ELCR = 0.8x10 <sup>-6</sup>
				HI = 0.3 Cumulative ELCR = $1.2 \times 10^{-5}$

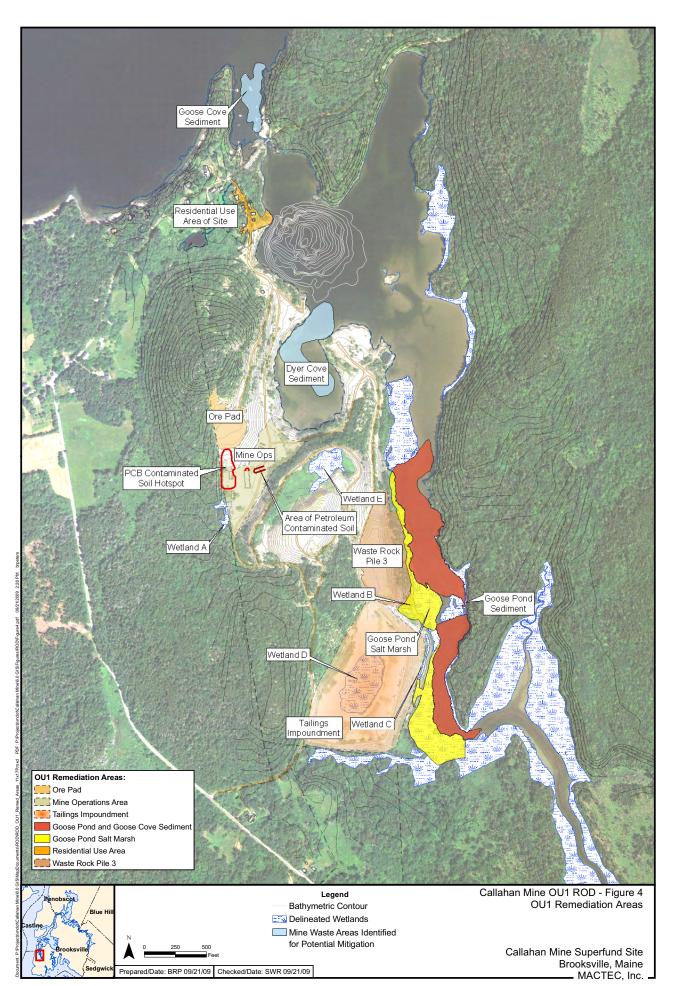
Notes:

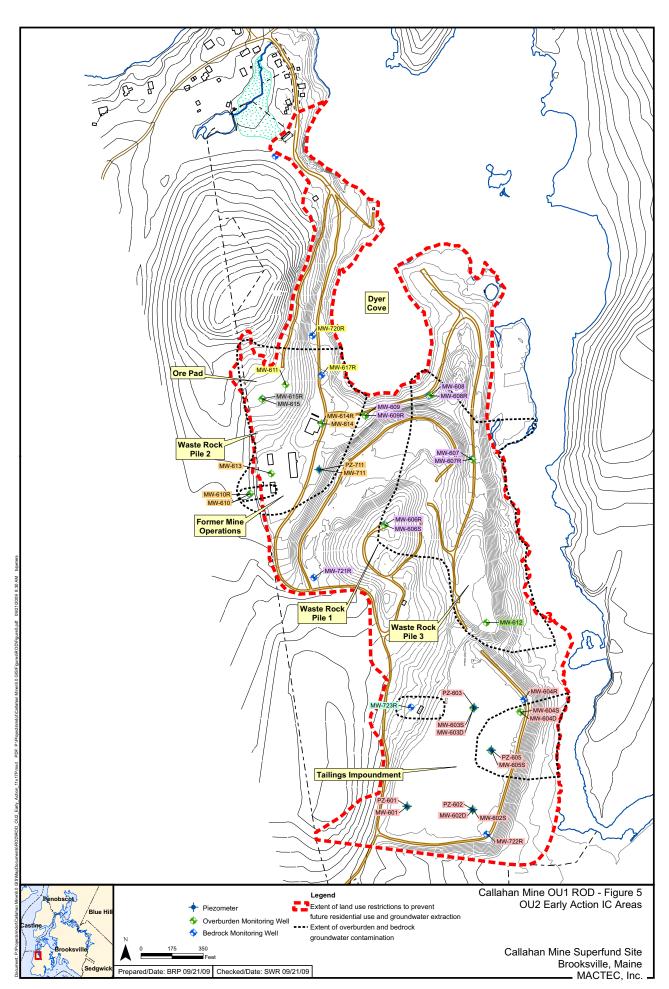
All concentrations = mg/kg

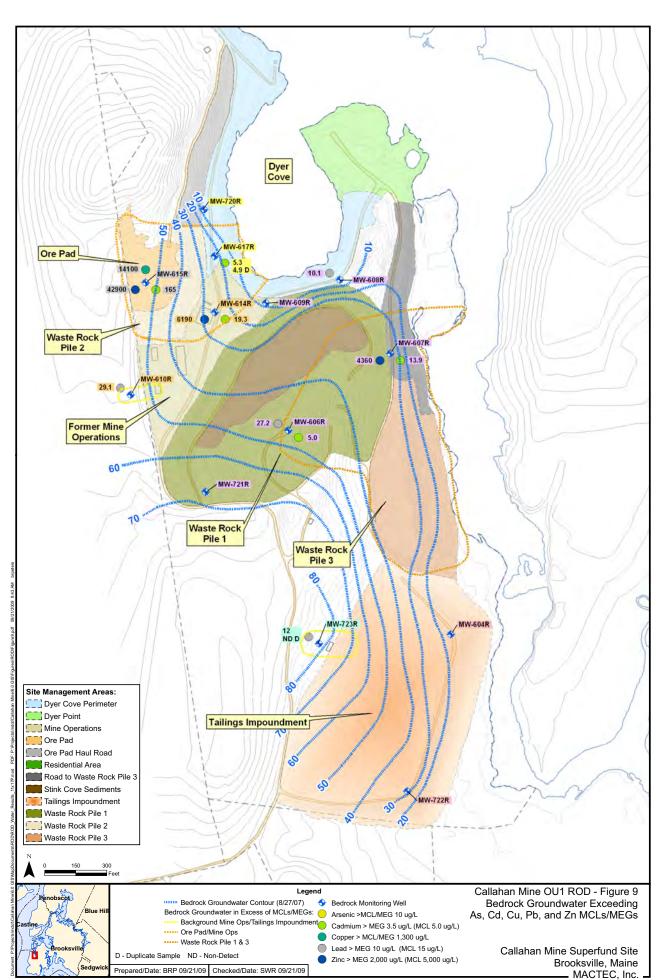
HI = hazard index,

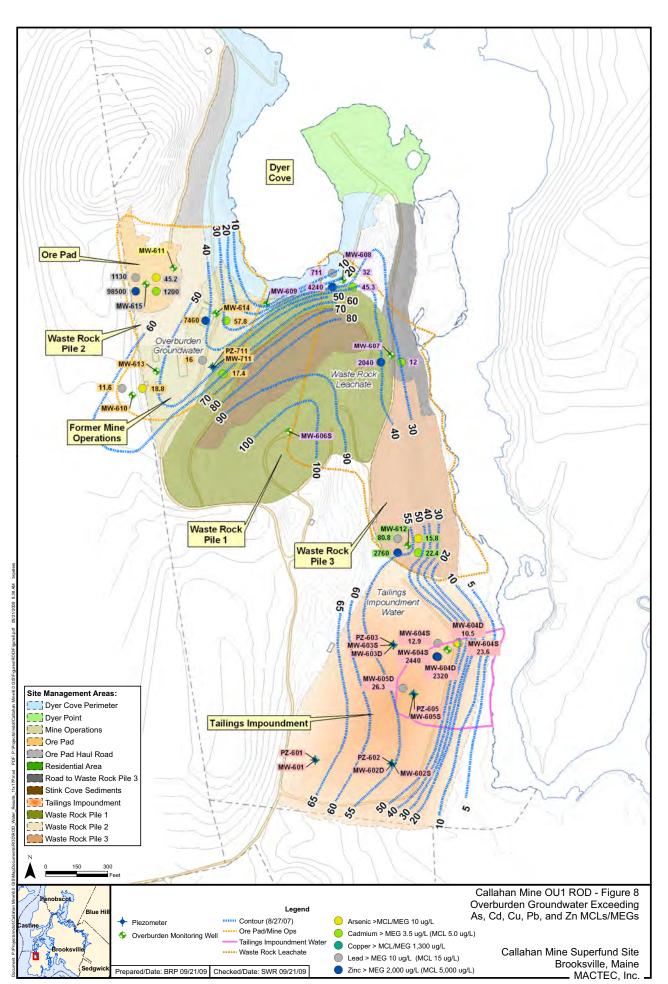
HQ = hazard quotient; ELCR = excess lifetime cancer risk

[1] Maine DEP, Implementation of Remedial Action Guidelines, Table 4 - Remedial Action Guidelines for Contaminated Soils









# APPENDIX D STATEMENT OF WORK CALLAHAN MINE SUPERFUND SITE, BROOKSVILLE, MAINE

#### A. INTRODUCTION AND PURPOSE

This Statement of Work ("SOW") defines the activities and deliverable obligations of the parties in order to perform the Remedial Action and the Operation and Maintenance, specified in the September 30, 2009 Operable Unit 1 Record of Decision ("OU1 ROD") and the September 30, 2009 Memorandum re: Early Action for Operable Unit 2 ("OU2 Early Action"). These requirements shall be further described in the Final Design, which will be submitted to EPA by the State of Maine, acting by and through MaineDOT, in accordance with the Administrative Settlement Agreement and Order on Consent for Remedial Design for OU1 Record of Decision and OU2 Early Action (Docket No. CERCLA-01-2010-0013). A Project schedule shall be prepared as part of the Remedial Action.

### **B. REMEDIAL ACTION ACTIVITIES**

The Remedial Action activities under this SOW include the following activities, which are specified in the OU1 ROD and OU2 Early Action, and which will be further developed in the Final Design:

- Tailings Impoundment Cover System with stabilization measures, possibly including a toe shear key or buttress;
- Development of an on-site quarry to supply material for the Tailings Impoundment Cover System;
- Horizontal drain or other drainage methods (<u>e.g.</u>, vertical wells or drains) within Tailings Impoundment, passive treatment (or other treatment methods) of the discharge from the horizontal drain, or other drainage methods (<u>e.g.</u>, vertical wells or drains) in a constructed wetland;
- Excavation and subaqueous disposal of WRP-3, Ore Pad, and Mine Operations Area source material in the confined aquatic disposal ("CAD") cell in the former mine pit;
- Excavation of soil containing arsenic and lead exceeding site-specific cleanup levels in the Residential Use Area of the Site and subaqueous disposal in the CAD cell in the former mine pit;
- Excavation and off-site disposal of soil contaminated with polychlorinated biphenyls ("PCBs") exceeding site-specific PCB cleanup levels identified in Table 57 of the OU1 ROD;
- Excavation and off-site disposal of petroleum-contaminated soil commingled with CERCLA waste (PCB-contaminated soil exceeding site-specific PCB cleanup levels);

- Dredging of Goose Pond and salt marsh sediment exceeding site-specific sediment cleanup levels identified in Table 58of the OU1 ROD and subaqueous disposal in the CAD cell in the former mine pit;
- Establishment of institutional controls to protect the components of the remedy (including caps, treatment wetlands, monitoring wells, and the CAD cell);
- Mitigation, restoration, and compensation for wetland impacts, including the dredging and subaqueous disposal of Dyer Cove and Goose Cove sediment that contains mine waste in the CAD cell in the submerged former mine pit, along with other measures that may be identified in Remedial Design;
- Continuation of the State ban on the harvesting of clams, oysters, and mussels in Goose Pond and Goose Cove;
- Implementation of land use restrictions on the former Callahan Mine property portion of the Site to prevent installation of water supply wells and residential development
- Installation of monitoring wells (if warranted); and
- Five-year reviews.

EPA shall perform the construction activities until the Remedial Action is considered Operational and Functional.

# C. EXPECTED OPERATION AND MAINTENANCE ("O&M") ACTIVITIES

The State shall implement Operation and Maintenance in accordance with the Site's O&M Plan (including the Long-Term Monitoring Plan), which shall include:

**Long-Term Operation and Maintenance.** Anticipated maintenance activities would be expected to include maintenance of the low-permeability cover system at the Tailings Impoundment, maintenance of storm water diversions and drainage structures to prevent/repair erosion damage, maintenance of any treatment system (including the possible addition of media to the treatment wetland), possible repair of reconstructed salt marsh, and repair/replacement of damaged monitoring wells. Any contaminated material that is removed from the treatment wetland will be disposed in the CAD cell in the former mine pit or within the Tailings Impoundment Cover System.

**Environmental Monitoring.** Long-term environmental monitoring shall also include collection of groundwater, surface water, and sediment samples, samples of influent to and effluent from any treatment system, samples of any treatment system media, and clam tissue from Goose Pond. Monitoring parameters for the CAD cell will need to be developed to ensure no contaminants are released to the environment over the long-term. Details of the monitoring program, including target monitoring wells, analytes, and quality assurance/quality control ("QA/QC") protocols, shall be specified in the Long Term Monitoring Plan.

**Institutional Control Inspections.** At a minimum, the State shall perform yearly inspections to confirm that land- and water-use restrictions are implemented and adhered to as required to prevent disturbance of the components of the remedy. The State shall ensure that the State ban on the harvesting of shellfish in Goose Pond or Goose Cove remains in effect.

**Five-Year Reviews.** Since contaminants will remain at the Site above concentrations allowing unlimited exposure and unrestricted use, under Section 121(c) of CERCLA (42 U.S.C. § 9621(c)), the Remedial Action must be reviewed at least once every five years. EPA shall perform the Five Year Reviews and prepare the Five Year Review Reports for the Site. EPA is responsible for the collection of any data to support the Five Year Reviews that are not included in the Long-Term Monitoring Plan. To support the Five Year Reviews, the State shall provide to EPA, in an electronic formal compatible with EPA software, all data collected as part of the long-term monitoring, operation, and maintenance of the Site.

#### **D. OTHER TASKS**

EPA and the State shall post a sign at the Site providing the appropriate contacts for obtaining information on activities being conducted at the Site and for reporting suspected criminal activities.

# APPENDIX E MAY 13, 2009 LETTER FROM EPA'S IRA LEIGHTON TO MaineDEP's DAVID P. LITTELL AND MaineDOT's DAVID A. COLE

090



# U.S. ENVIRONMENTAL PROTECTION AGENCY REGION 1 — NEW ENGLAND REGION 1 CONGRESS STREET, SUITE 1100, BOSTON, MA 02114

MAY 13 2009

David P. Littell, Commissioner Maine Department of Environmental Protection

David A. Cole, Commissioner Maine Department of Transportation

State of Maine Augusta, ME 04333

> Re: Callahan Mine Superfund Site—EPA's Position on Maine's Financial Obligations for the Site

Dear Commissioners Littell and Cole:

This letter serves as the response by the U.S. Environmental Protection Agency ("EPA") to the State of Maine's inquiries about EPA's position on Maine's financial obligations at the Callahan Mine Superfund Site (the "Site") following the anticipated issuance of a Record of Decision for Operable Unit 1 ("OU 1 ROD") in September 2009. As you know, Maine's Department of Transportation ("MaineDOT") has completed the OU 1 Remedial Investigation ("OU 1 RI") and will shortly complete the OU 1 Feasibility Study ("OU 1 FS"), pursuant to an Administrative Order by Consent for RI/FS (Docket No. CERCLA-01-2005-0022, June 7, 2005) ("RI/FS AOC"), under EPA oversight with assistance by Maine's Department of Environmental Protection ("MaineDEP").

Previously, on May 14, 2004, EPA provided general notice of potential CERCLA liability to three potentially responsible parties ("PRPs"), including the State of Maine. The other two PRPs receiving general notice were the Callahan Mining Corporation and Smith Cove Preservation Trust. Because all three PRPs indicated an inability to finance or perform the RI/FS, on November 4, 2004, in coordination with MaineDEP, EPA began to perform the RI/FS as an EPA-lead Fund-financed endeavor. In late December 2004, the State expressed interest in taking over the RI/FS. Negotiations between EPA and the State culminated in the 2005 RI/FS AOC. EPA is appreciative of the State's financial commitment to perform the RI/FS through MaineDOT and to provide oversight support for the RI/FS through MaineDEP.

The State's status as a PRP at the Site means that, under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), the State is jointly and severally liable for all cleanup costs at the Site. Nonetheless, EPA has previously explained that, if the State is the sole liable, viable Commissioners Littell and Cole Page 2 of 2

PRP, then EPA has the option of initiating a Fund-financed remedial action at the Site while invoking the "at least 50%" cost-share provision of Section 104(c)(3)(C)(ii) of CERCLA, 42 U.S.C. § 9604(c)(3)(C)(ii).

After internal deliberations, however, EPA has determined that, if the State is the sole liable, viable PRP, then the following future obligations for the State are appropriate: (1) the State shall complete the RI/FS for OU 1 as well as for subsequent OUs pursuant to the RI/FS AOC; (2) the State shall perform the Remedial Design, under another administrative order by consent, following EPA's issuance of the ROD for OU 1 and the ROD(s) for subsequent OUs, and will receive a covenant not to sue for the performance of this work; (3) the State shall perform long-term operation and maintenance as required by CERCLA § 9604(c)(3)(A), pursuant to a Superfund State Contract ("SSC") entered into in accordance with 40 C.F.R. Part 35, Subpart O; and (4) the State shall provide a 10% cost-share for the Remedial Action for OU 1 and subsequent OUs, as required by 42 U.S.C. § 9604(c)(3)(C)(i), pursuant to the SSC.

In the performance of the OU 1 RI/FS, staff at MaineDEP, MaineDOT, and EPA have developed a good working relationship, and we hope that this will continue in the future. Should you have any questions, feel free to contact Edward Hathaway, Remedial Project Manager, at 617-918-1372, Man Chak Ng, Senior Enforcement Counsel, at 617-918-1785 or Eve Vaudo, Senior Enforcement Counsel, at 617-918-1785.

Sincerely yours, Ira Leighton

Acting Regional Administrator

cc (via e-mail):

David Wright, Director, MaineDEP Division of Remediation Naji Akladiss, Project Manager, MaineDEP Peter LaFond, Esq., AAG, Maine Office of the Attorney General Dwight Doughty, Project Coordinator, MaineDOT Mary M. Sauer, Esq., AAG, Maine Office of the Attorney General Mary Jane O'Donnell, Chief, ME/VT/CT Superfund Section Edward Hathaway, RPM Man Chak Ng, Senior Enforcement Counsel Eve Vaudo, Senior Enforcement Counsel

# THIS PAGE INTENTIONALLY LEFT BLANK