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CLEANUP

April 21, 2015

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Re: Dispute Decision Regarding Upper Columbia River Action Levels for Time-Critical Removal Action Dispute, Upper Columbia River Superfund Site

Dear Mr. Pendowski, Mr. Kieffer, Mr. Passmore, and Ms. Lehnertz:

This letter sets forth my determination with respect to the Washington Department of Ecology's February 13, 2015, request for dispute resolution, the Spokane Tribe of Indians' February 19, 2015, notification of participation in the dispute resolution process and subsequent submittal, the Confederated Tribes of the Colville Reservation's February 20, 2015 request for dispute resolution and subsequent submittal, and the U.S. Department of the Interior's March 19, 2015 comments via telephone on the dispute, regarding EPA's proposal of a lead action level for a Time-Critical Removal Action for various residential properties within the Upper Columbia River Superfund Site ("Site"). In summary, I hereby determine:

1. The lead action level for the Time-Critical Removal Action at residential properties at the Site must be determined through CERCLA removal action procedures and tribal consultation policies and will be documented in an Action Memorandum and the associated administrative record;

2. EPA intends to select an action level for the Time-Critical Removal Action for lead of 700 parts per million which will result in a cleanup level of less than 250 parts per million; and
3. EPA will continue to follow all appropriate CERCLA remedial action procedures, including the Memorandum of Agreement, and tribal consultation policies, for determining final cleanup levels for lead for the Remedial Action at the Site.

I. Background

On June 2, 2006, EPA and Teck Cominco Metals, Ltd. and Teck Cominco American Incorporated (collectively "Teck Cominco") entered into a settlement agreement for the performance of a CERCLA Remedial Investigation and Feasibility Study ("RI/FS") at the Site. On May 18, 2007, five governmental parties ("Participating Parties") entered into the Intergovernmental Memorandum of Agreement for the Upper Columbia River Superfund Site ("MOA").[1] The MOA provides a framework for coordination and cooperation among the Participating Parties to address the RI/FS process at the Site. While the governmental parties, except for EPA, are not parties to the settlement agreement with Teck Cominco, they have statutory and regulatory mandates applicable to the RI/FS and are active government oversight participants in Teck Cominco's performance of the RI/FS. The current dispute is raised under Section VII of the MOA.

In December 2014, EPA began the process of considering action levels for a potential Time-Critical Removal Action at the Site to address lead contamination in soils at residential properties, pursuant to Section 104(a) of CERCLA, 42 U.S.C. § 9604(a), and 40 C.F.R. § 300.415, that pose an immediate threat to human health. EPA initiated conversations with the Washington Department of Ecology on December 16, 2014, and with the Confederated Tribes of the Colville Reservation on December 18, 2014, regarding a potential Time-Critical Removal Action at residential properties with lead levels over 1,000 ppm, and for children's play areas with lead levels over 700 ppm. At that time, EPA expressed that complete data regarding lead levels in soils at the Site were not expected until January 29, 2015, and therefore the discussions regarding an action level range of 700 ppm to 1,000 ppm were preliminary and were not meant to convey a final agency decision on the action level. Throughout December 2014, January 2015, and February 2015, EPA conducted weekly telephone calls with the Participating Parties and was in regular communication with Teck Cominco. On March 11, 2015, following the official commencement of this dispute, EPA met with the parties to the dispute in Spokane, Washington. At that meeting, the concerns of the parties to the dispute were discussed, and EPA presented the perspective of its technical team regarding the proposed action level for the Time-Critical Removal Action. The conversations that occurred over the past few months were intended to provide for open communication among all parties regarding a Time-Critical Removal Action from residential properties at the Site, and were not intended to convey or determine an action level. To date, EPA has not made a determination of the action level for the Time-Critical Removal Action for residential properties at the Site.

II. The Issues

In its request for dispute resolution, the Washington Department of Ecology contends that applying the same action levels developed for the Bunker Hill Superfund Site is inappropriate because it is

[1] The signatories to the MOA, referred to as the Participating Parties, are the United States Environmental Protection Agency, the Washington Department of Ecology, the Confederated Tribes of the Colville Reservation, the Spokane Tribe of Indians, and the United States Department of the Interior.

inconsistent with EPA policy, with current scientific consensus on health risks associated with lead exposure, with more recent bioavailability studies, with Washington's policies, and with other EPA actions.

In its request for participation in the dispute resolution process, the Spokane Tribe of Indians did not initially raise any specific issues, but requested to participate in the process, as provided for in the MOA. In follow up written communication dated March 12, 2015, Dr. F. E. Kirschner of AESE, Inc., on behalf of the Spokane Tribe of Indians, contends that the proposed use of action levels at the Site that were developed for the Bunker Hill Superfund Site are inappropriate, and that the proposed action level would provide disproportionate protection of human health at the Site than is provided for under Washington State policy.

In its request for dispute resolution, the Confederated Tribes of the Colville Reservation contends that EPA did not coordinate with the Confederated Tribes of the Colville Reservation prior to communicating EPA's cleanup intent and proposed cleanup levels to Teck Cominco, and gave no meaningful consideration to Tribal cleanup standards. Additionally, the Confederated Tribes of the Colville Reservation contends that it shares the Washington Department of Ecology's concerns regarding application of cleanup levels from the Bunker Hill Superfund Site.

In its comments via telephone regarding the current dispute, the U.S. Department of the Interior expressed its support for EPA's proposed action level for the Time-Critical Removal Action and the technical basis used to reach the proposal.

A. Removal Action Authority and Procedures

In the present action level determination process, EPA must follow the procedures of its removal action authority, as laid out in CERCLA, 42 U.S.C. §§ 9601, *et seq.*, the National Oil and Hazardous Substances Pollution Contingency Plan ("NCP"), 40 C.F.R. Part 300, and relevant EPA guidance documents. Section 104(a)(1) of CERCLA, 42 U.S.C. § 9604(a)(1), grants EPA the authority to act, consistent with the NCP, to remove a hazardous substance, pollutant, or contaminant, whenever there is a release or a threat of such a release into the environment. Additionally, pursuant to Section 104(a)(2) of CERCLA, 42 U.S.C. § 9604(a)(2), any removal action taken should, to the extent practicable, contribute to the efficient performance of any long term remedial action with respect to the release or threatened release concerned. Therefore decisions made regarding action levels or cleanup levels of a removal action do not constitute final remedial actions, but rather should contribute to final remedial actions. Conducting the Time-Critical Removal Action for residential properties at the Site is intended to address the immediate threat to human health from lead exposure, and will contribute to the long term cleanup of the Site through the remedial action process.

The removal program is in the final stages of the site evaluation and has determined that a Time-Critical Removal Action is appropriate to address immediate threats to human health due to lead contaminated soils. Factors EPA must consider when making this determination include, but are not limited to, actual or potential exposure to humans, actual or potential contamination of drinking water, and threat of fire or explosion.[2] Since EPA has not completed the required process for starting a Time-Critical Removal Action, EPA is now in the final stages of determining action levels, cleanup levels, and the scope of this

[2] 40 C.F.R. § 300.415(b)(2).

Time-Critical Removal Action for residential properties at the Site. Pursuant to 40 C.F.R § 300.415(j), when conducting a removal action, EPA shall, to the extent practicable considering the urgency of the situation and the scope of the removal, attain applicable or relevant and appropriate requirements under federal or state environmental laws ("ARARs"). EPA recognizes that many of the concerns raised in this dispute address ARARs and EPA will consider those issues, in addition to the urgency of the situation and the scope of the removal, as it determines whether the Time-Critical Removal Action will attain ARARs. As noted above on page 2, removal activities conducted by EPA with an action level of 700 ppm will result in a cleanup level of 250 ppm, which is consistent with the State of Washington's cleanup standard for lead.

When a final determination is made to implement a Time-Critical Removal Action, EPA prepares an Action Memorandum in accordance with EPA guidance which provides a concise written record of the removal decision.[3] The Action Memorandum authorizes the initiation of on-site activities, pursuant to Section 104(a) of CERCLA, 42 U.S.C. § 9604(a). There is no opportunity for official public comment regarding selection of a Time-Critical Removal Action prior to initiation of on-site activities because of the time-critical element of such actions. Pursuant to 40 C.F.R. § 300.415(n)(2)(i), within 60 days of initiation of on-site removal activity, EPA will publish an administrative record providing supporting documentation of EPA's decision to conduct the Time-Critical Removal Action. Pursuant to 40 C.F.R. § 300.415(n)(2)(ii), EPA will then provide for a public comment period, as appropriate, for a period of not less than 30 days. That public comment period, which follows determination of removal action levels and initiation of on-site removal activity, is the mechanism for official public comment regarding Time-Critical Removal Actions. Tribal consultation regarding Time-Critical Removal Actions will be addressed in Section II.D, below.

EPA understands the importance of public participation in its decision-making process and recognizes the specific interests of the parties involved in the present dispute in determining final remedial cleanup levels. However the very nature of, and legal procedures for, Time-Critical Removal Actions require rapid decision-making to address immediate threats to human health.

B. Remedial Action Authority and Procedures – Including the RI/FS and MOA

While the removal action procedures described above authorize the determination of the action levels for a Time-Critical Removal Action, remedial action procedures, including the RI/FS process and the MOA, govern the determination of the long term remedial cleanup levels at the Site. Remedial action authority and the selection of cleanup standards are authorized under Sections 104 and 121 of CERCLA, 42 U.S.C. §§ 9604 and 9621. Following a preliminary assessment and site inspection, 40 C.F.R. § 300.430 authorizes the RI/FS. As mentioned in Section I above, EPA and Teck Cominco entered into a settlement agreement under which Teck Cominco agreed to conduct the RI/FS, consistent with EPA guidance and the NCP. The purpose of an RI/FS is to assess site conditions and evaluate alternatives to the extent necessary to select a remedy and includes project scoping, data collection, risk assessment, treatability studies, and analysis of alternatives.[4] The MOA, under which the current dispute was raised, is "intended to assist the Participating Parties in achieving enhanced communication, coordination and

[3] EPA *Superfund Removal Guidance for Preparing Action Memoranda, Final Guidance, September 2009*, available at http://www2.epa.gov/sites/production/files/2014-02/documents/superfund_removal_guide_for_preparing_action_memo.pdf.
[4] 40 C.F.R. § 300.430(a)(2).

efficiencies during the RI/FS process."[5] Therefore the MOA and its dispute resolution procedures apply only to the RI/FS process (not to determinations made by EPA pursuant to its removal authority). EPA is committed to adhering to the letter and spirit of the MOA and will take into account comments and critiques raised by the Participating Parties regarding the RI/FS process.

Following completion of the RI/FS process, EPA will follow legal requirements in CERCLA and the NCP, specifically 40 C.F.R. § 300.430(f), to select a remedial action. Remedial actions involve long-term actions designed to provide a permanent solution to threats posed by hazardous substances, pollutants, or contaminants. Cleanup levels and remediation goals for selected remedial actions must address ARARs, and the site-specific evaluation of ARARs is based on a number of factors in the NCP.[6] The comments and issues raised in the current dispute, such as using data from the Bunker Hill Site, using IEUBK modelling, not attaining cleanup standards from Washington state law and policies, not applying ATSDR and CDC standards, and not mirroring cleanup levels selected at other Superfund sites, are issues that will be relevant to the discussion surrounding ARARs and the applicability of ARARs to the remedy. Additionally, pursuant to 40 C.F.R. § 300.430(f)(3), EPA will provide for a public comment period on the proposed remedy prior to making a final decision. EPA encourages input and participation from state and tribal partners, as well as other members of the public, in selecting the appropriate remedy for the Site.

C. Removal Action Level for Lead

In December 2014, EPA proposed an action level for lead for a potential Time-Critical Removal Action for residential properties at the Site of 700-1,000 ppm. That action level was proposed based on EPA's concern that a number of residential soil samples had lead levels above 1,000 ppm. EPA proposed the lower action level of 700 ppm for children's play areas where children's risk for exposure to lead would be higher. That proposal, and subsequent conversations, led to the initiation of the current dispute in February 2015. That initial proposal was not a decision under the remedial program procedures. As described in Section II.A above, the decision to conduct a Time-Critical Removal Action and the proposal of certain action levels was made pursuant to removal action authorities and procedures, which falls outside the purview of the dispute resolution mechanism of the MOA. EPA does not have the legal authority to make a decision regarding a Time-Critical Removal Action in a response to a dispute raised under the MOA. However, the MOA dispute resolution process has provided a valuable mechanism for the exchange of information regarding lead action levels and EPA is taking the opportunity to use the MOA dispute resolution process to provide the Participating Parties with information on EPA's intended action level for the upcoming Time-Critical Removal Action for residential properties at the Site.

As mentioned above, EPA is currently in the process of determining the scope and action level of the Time-Critical Removal Action. While I am not in a position to make a final decision regarding action levels or cleanup levels for lead in this dispute resolution decision letter, EPA intends to select an action level for lead of 700 ppm for the Time-Critical Removal Action. Therefore, residential soils that are above 700 ppm of lead would undergo a removal action and would be cleaned up to less than 250 ppm of lead. The Time-Critical Removal Action will be focused on immediate threats to human health and there will be additional assessment, through the RI/FS process which provides for input from the Participating Parties under the MOA, and additional opportunity for public comment on the proposed

[5] MOA, page 1.
[6] 40 C.F.R. § 300.400(g).

remedy, to determine a final remedial cleanup level. During that remedial process, EPA will address possible changes in acceptable modelling methods, potential expansion of the sampling area, ARARs, and other relevant issues.

EPA's project team considered a number of factors in proposing the action level for the Time-Critical Removal Action for residential properties, including results of site-specific bioavailability data gathered through the RI/FS process, and other studies regarding bioavailability, lead ingestion rates, and blood lead levels. The project team also reviewed blood lead level and bioavailability data from the Bunker Hill Superfund Site, as well as studies conducted as recently as 2013 and 2014, to propose in December 2014 that removal of soils from residential properties with lead levels of 700 ppm to 1,000 ppm or higher would adequately address the immediate threat to human health.[7] Following bioavailability and blood lead level studies, and calculation of the lead ingestion rate for the Bunker Hill Superfund Site, the project team used that data to estimate the lead ingestion rate at the Upper Columbia River Superfund Site. The project team used this data in its risk evaluation for the Upper Columbia River Superfund Site for purposes of proposing the action level for the Time-Critical Removal Action because the bioavailability data at the two sites is comparable. Additionally, the data and studies from the Bunker Hill Superfund Site have been reviewed extensively by EPA and a distinguished panel from the National Academy of Sciences who published their supportive findings.[8] The current proposal of a blanket action level of 700 ppm (as opposed to an action level of 700 ppm for residential properties where children live and an action level of 1,000 ppm for residential properties where children do not live) was proposed because the demographics of residents can and does change over time, and a property without children present currently may have children present at the property in the future.

In the past EPA has approved different lead cleanup levels at other sites based on site-specific analyses. For example, at the Tar Creek Superfund Site, Ottawa County, Oklahoma, EPA conducted a Time-Critical Removal Action to address lead contaminated soil in 1995 and 1996. The removal in 1995 focused only on areas where children tend to congregate such as schools, playgrounds, and parks and set an action level of 500 milligrams per kilogram ("mg/kg").[9] The removal in 1996 focused on residential properties, and an action level of 500-1,500 mg/kg was selected. For residential properties where children less than 72 months of age resided who had blood lead levels higher than or equal to 10 μg/dL and soil lead concentrations were identified as a significant contributor to that level, the action level was 500 mg/kg. For residential properties that did not meet those criteria, the action level was 1,500 mg/kg. Additionally, the Action Memorandum, dated March 21, 1996, specifically states "the final remediation goal for lead and all other contaminants will be established in the Record of Decision for the Site."[10] Ultimately, the cleanup level selected through the remedial program in the Record of Decision was 500 mg/kg.

At the Jefferson County Mining Site, Jefferson County, Missouri, EPA initiated a Time-Critical Removal Action in 2007 to address lead contaminated soil. The action level ranged from 400-1,200

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[7] Large scale reviews and integration of data from tracer, mechanistic, validation modeling/measurement, and empirical relations (biomonitoring/environmental concentration) studies have found that mean ingestion rates in children were less than 100 milligrams per day and may be as low as 40-80 milligrams per day. Estimating Children's Soil and Dust Ingestion Rates Using Blood Lead Biomonitoring at the Bunker Hill Superfund Site in the Silver Valley of Idaho.

[8] Superfund and Mining Megasites: Lessons from the Coeur d'Alene River Basin, available at http://www.nap.edu/catalog/11359/superfund-and-mining-megasites-lessons-from-the-coeur-dalene-river.

[9] 1 mg/kg = 1 ppm.

[10] Action Memorandum for Tar Creek Superfund Site, dated March 21, 1996, page 7.

mg/kg. For properties that were high-use areas for children 84 months of age or younger, or residential properties where children resided who had blood lead levels greater than 10 μg/dL, the action level was 400 mg/kg. For other properties that did not meet those criteria, the action level was 1,200 ppm. While EPA selected different cleanup levels for the removal actions at the Tar Creek Superfund Site and the Jefferson County Mining Site than it has proposed for the Time-Critical Removal Action at the Upper Columbia River Superfund Site, EPA has always applied a site-specific analysis. EPA has also been clear that cleanup levels selected for removal actions are not the final remedial action cleanup levels.

D. Meaningful Tribal Consultation

EPA's policy is to consult on a government-to-government basis with tribal governments when EPA actions and decisions may affect tribal interests.[11] EPA is committed to engaging in consultation with the Confederated Tribes of the Colville Reservation and the Spokane Tribe of Indians throughout the removal and remedial actions at the Site, pursuant to EPA policy and the MOA, as applicable. Specifically regarding Time-Critical Removal Actions in Region 10, "EPA should offer formal consultation directly to Tribal leadership prior to approval of the Action Memorandum, whenever time allows."[12]

I apologize for any miscommunications or misunderstandings regarding consultation that occurred as a result of communications between EPA, the Confederated Tribes of the Colville Reservation, and the Spokane Tribe of Indians in December 2014 through the present on the matter of EPA's proposed action level of 700-1,000 ppm for lead for a Time-Critical Removal Action at the Site. The communications between EPA and these parties were meant to serve as initial informal consultation to discuss the potential action level for the Time-Critical Removal Action. EPA should have been clearer in those early discussions that a decision had not yet been made, and should have ensured that proper procedures for meaningful formal tribal consultation were followed. EPA fully intends to consult with the Confederated Tribes of the Colville Reservation and the Spokane Tribe of Indians prior to approval of the Action Memorandum for the Time-Critical Removal Action at the Site. In the near future, EPA will initiate formal consultation regarding the Time-Critical Removal Action.

As EPA and the Confederated Tribes of the Colville Reservation and the Spokane Tribe of Indians proceed with formal consultation, EPA will take into consideration the issues raised regarding action levels during this dispute, and welcomes any additional input from the Tribes.

III. Decision

The dispute raised by the Washington Department of Ecology, the Spokane Tribe of Indians, and the Confederated Tribes of the Colville Reservation, is resolved as of the date of this letter. EPA's proposal to conduct a Time-Critical Removal Action for residential properties at the Site with an action level of 700 ppm for lead are governed by the authorities and requirements of CERCLA and the NCP regarding removal actions. The MOA and its dispute resolution procedures address the RI/FS process of the remedial action for the Site.

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[11] EPA Region 10 Tribal Consultation and Coordination Procedures, page 1.
[12] EPA Region 10 Tribal Consultation and Coordination Procedures, Appendix A.

Accordingly:

1. The lead action level for the Time-Critical Removal Action at residential properties at the Site must be determined through CERCLA removal action procedures and tribal consultation policies and will be documented in an Action Memorandum and the associated administrative record;
2. EPA intends to select an action level for the Time-Critical Removal Action for lead of 700 parts per million which will result in a cleanup level of less than 250 parts per million; and
3. EPA will continue to follow all appropriate CERCLA remedial action procedures, including the Memorandum of Agreement, and tribal consultation policies, for determining final cleanup levels for lead for the Remedial Action at the Site.

IV. Administrative Record

An administrative record includes the documents that provide the basis for an EPA decision. The administrative record for the Time-Critical Removal Action for the Site will include documents that were used in reaching the decisions detailed in the Action Memorandum. Pursuant to 40 C.F.R. § 300.415(n)(2), EPA will publish the administrative record within 60 days of initiation of on-site removal activity.

EPA acknowledges the importance of the critical issues brought up through this dispute resolution process and will work with the Participating Parties to address those concerns through the proper procedures. EPA is committed to continuing dialog with the Participating Parties throughout the RI/FS process, in accordance with the MOA, and into the selection of the remedy to ensure a long-term solution to contamination at the Site.

Sincerely,

Richard Albright, Director
Office of Environmental Cleanup

cc: Ms. Patty Bailey, Colville Tribe
Mr. Dan Audet, National Park Service
Mr. Mike Hibbler, Washington State Dept. of Ecology
Mr. John Rowland, Washington State Dept. of Ecology
Mr. Fred Kirschner, AESE, Inc.
Mr. Dennis Faulk, EPA
Ms. Laura Buelow, EPA