



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10

1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

OFFICE OF
ENVIRONMENTAL
CLEANUP

AUG 31 2011

Mr. Todd Slater
Legacy Site Services, LLC
468 Thomas Jones Way
Exton, Pennsylvania 19341

Mr. Sean Sheldrake
U.S. Environmental Protection Agency
1200 Sixth Avenue
Suite 900 M/S ECL-115
Seattle, Washington 98101

Re: Final Decision on Disputes of June 3, 2011, by Legacy Site Services LLC (LSS) Regarding Technical Direction for Completion of the Removal Action Area Characterization Report, In the Matter of U.S. EPA Region 10 Docket No. CERCLA 10-2005-0191

Dear Mr. Slater and Mr. Sheldrake:

Please find attached my final decision in the above-referenced dispute. I can make myself available to answer questions, as necessary.

Sincerely,

A handwritten signature in blue ink, appearing to read "Daniel D. Opalski".

Daniel D. Opalski
Director

cc: Mr. Erik Ipsen, ERM

Mr. David Livermore, Integral Consulting, Inc.

Mr. Doug Loutzenhiser, Legacy Site Services, LLC

Ms. Karen Traeger,
Counsel, Legacy Site Services LLC (Agent for Arkema)

Mr. Stephen Parkinson, Groff Murphy, PLLC (Agent for Arkema)

Mr. Larry Patterson, Arkema, Inc.

Mr. Matt McClincy, Project Manager, DEQ

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MEMORANDUM

SUBJECT: Final Decision on Disputes of June 3, 2011, by Legacy Site Services LLC (LSS) Regarding Technical Direction for Completion of the Removal Action Area Characterization Report, In the Matter of U.S. EPA Region 10 Docket No. CERCLA 10-2005-0191

FROM: 
Daniel D. Opalski, Director
Office of Environmental Cleanup

TO: File

This memorandum sets forth my final decision on the five elements of the above-referenced dispute. I have referred to the five elements using the titles from LSS' presentation prepared for the LSS/EPA dispute meeting on August 2, 2011. A description of the administrative record for this dispute decision is attached.

ELEMENT I. HORIZONTAL RAA BOUNDARY

Discussion:

My May 23, 2008 dispute decision quickly dispenses with the matter of the horizontal removal action area boundary by noting that the parties were already in agreement that the lateral extent of the removal area would be defined by approximately the 5 ppm DDx contour. With this agreement reached, the balance of that section of that dispute decision focuses on the concentration versus mass issue as it relates to the vertical dimension within the area defined by the 5 ppm DDx contour. Notwithstanding LSS' current assertion that it agreed to the 5 ppm DDx contour as a "surrogate" for the lateral extent of the removal area pending further data collection and refinement of its mass to volume relationship analysis, my earlier decision does not acknowledge, adopt, or invite revisiting of the 5ppm DDx contour as the lateral extent of the removal area.

However, the record before me reflects agreement by the parties that continued refinement of the mass to volume relationship could be a helpful part of the evaluation of removal alternatives *within* the defined lateral boundary. On this point, I do not believe keeping with the 5 ppm DDx lateral boundary definition places an unreasonable burden upon LSS nor damages its interests. That additional data collection and analysis have been done in the intervening time to refine the 5 ppm DDx contour strongly suggests that the information to design and evaluate alternatives addressing the lateral extent of the 5ppm DDx contour should be readily available or developable. Furthermore, LSS is still at liberty to include among the range of alternatives in the EE/CA options that include varying approaches (e.g. altering the relative mix of dredging versus capping) for addressing different areas within the 5 ppm DDx removal area.

The exchange between the parties as part of the current dispute focuses in part on my use of the phrase "approximately" in my May 23, 2008 dispute decision. LSS infers that my use of "approximately" promotes the opportunity, ostensibly via the mass to volume relationship analysis, to come up with a revised definition of the lateral extent of the removal area. As in the prior dispute, I believe that here LSS overstates the role of the mass to volume relationship in defining the removal action area (in all dimensions), or perhaps more accurately, does not sufficiently acknowledge the significance of concentration. More particularly as to the lateral extent, it is not a coincidence that the only numerical value I reference is a concentration, and that concentration is 5 ppm DDx. However the parties may have arrived at their own bases for the agreement at 5 ppm DDx, the agreement I recognized was ultimately on that numerical value, not on the process for arriving at it. To the extent that the use of "approximately" contributed to some confusion or distraction on this point – and even this I consider somewhat debatable given the clear focus of much of the intervening work on better understanding the 5 ppm DDx contour, it seems appropriate to eliminate further use of the word "approximately" in this context. I note that regardless, there is some degree of estimation/approximation in any contouring effort, and certain site conditions (e.g. being too far into the navigation channel) may suggest not hewing strictly to the contour in certain areas.

Decision:

LSS shall proceed with the EE/CA using a removal action area that has its lateral extent defined by the 5 ppm DDx contour. The final removal action area boundary will be defined in the action memorandum.

ELEMENT II. OTHER COIs

Discussion:

I agree with the assertion that the application of all COIs in determining the vertical removal action area boundary was not specifically before me in the prior dispute. However, this does not mean that I somehow tacitly agreed that it wasn't necessary to consider all COIs in developing or evaluating removal alternatives by my not addressing a question that had not been raised. On the contrary, it seems much more logical to assume that for a chemical identified as a COI, the initial and potential residual distribution of that chemical would be of interest in the design and evaluation of cleanup options.

EPA consistently has framed this removal action in terms of minimizing the extent to which the action taken within the removal action area will need to be revisited as part of a final remedial action. Besides the various pragmatic arguments for this framing, it is consistent with the requirement of the National Contingency Plan that removal actions shall, to the extent practicable, contribute to the efficient performance of any anticipated long-term remedial action. To address this requirement, although DDx may be the primary risk driver, explicit consideration of the other COIs for the Arkema site (including those that may be COIs for the Portland Harbor site overall) is relevant and necessary. This does not mean that the vertical extent of dredging will automatically be defined by the concentration of a particular COI, but it does mean that the distribution of COIs above risk-based concentrations needs to be factored into the development and analyses of alternatives, with clear discussion of implications/trade-offs of potential alternatives (or sub-alternatives) that are more and less aggressive in addressing each of the COIs. (Presumably, where the vertical extent of a particular alternative, even if defined primarily by a given DDx concentration, happens to capture COIs at concentrations of interest, the issue should be moot.) There are likely to be a number of factors to consider, but clearly a circumstance we want to minimize is the need to revisit a particular part of removal action area because the removal action did not go far enough in addressing potential threats from any of the COIs, particularly where that portion of the removal action area has been subject to dredging as part of the removal action.

Between the parties the debate has focused in part on the use of the word "define". My understanding of the significance in this context is that whatever is used to "define" the vertical extent of the removal action area would establish the vertical dimension -- the two lateral dimensions already having been defined by the 5 ppm DDx contour -- of the three-dimensional volume of material that would have to be addressed by whatever means in all of the removal alternatives. While this construct offers potential benefits, I don't see this distinction as important enough to warrant further debate. What I expect in any case is that the removal alternatives in the EE/CA will provide for a range of approaches for addressing all COIs, including varying the depth of dredging in locations where COIs other than DDx may be the driver, and that the comparative evaluation of the removal alternatives will describe the implications of the different approaches.

As presented, this element of the dispute touches both on 1) which chemicals to consider and 2) which specific values to consider for these chemicals. I will take up the question of specific values in the following Element III of this dispute decision.

Decision:

All COIs shall be considered in developing and evaluating removal alternatives, including specifically the vertical extent of action under the alternatives.

ELEMENT III. USE OF PORTLAND HARBOR PRGs

Discussion:

On the questions of which values of the COIs to consider, the important consideration again is the requirement of the National Contingency Plan that removal actions shall, to the extent practicable, contribute to the efficient performance of any anticipated long-term remedial action. The point relative to concentrations is to attempt to track with the harbor-wide process to the extent practicable related to numerical benchmarks so as to minimize the extent to which the removal action at the Arkema site will require revisiting once it is complete. The parties seem to agree on this objective conceptually, but disagree on the specific approach for meeting the objective. LSS' makes a valid point as to the lack of certainty at this point relative to concentrations that will be most relevant in harbor-wide decision-making. However, it is this very uncertainty that supports the notion that the EE/CA needs to be robust in the range of concentrations it considers. Ideally, this range will include both sufficiently low and sufficiently high values that there will be a high likelihood that the ultimate removal decision, informed by the evolution of thinking on the harbor-side process, can be made relying upon concentrations within the range of the analyses that already will have been performed in the EE/CA. From this perspective, it makes sense to consider PRGs rather than SLVs where PRGs are currently available from the harbor-wide process. It will also make sense to consider the implications of relevant background levels.

LSS states that some of the current PRGs are based on tissue concentrations, ostensibly meaning that these PRGs then would not themselves provide directly a sediment concentration for use in developing and evaluating alternatives. The confusion may be due to EPA's technical direction referring to 2,3,4,7,8-PCDF, whereas LSS' responses refer to 2,3,4,7,8-PCDD. I also note that in Table 1 from EPA's harbor-wide RI/FS technical direction of 3/24/2010, there is no distinction made that the 2,3,4,7,8-PCDF PRGs represent tissue values. In any event, this appears to be a factual question that can be clarified between the parties, as necessary. If the concentrations are, in fact, sediment values, these PRGs can be applied directly. If instead they are tissue concentrations, LSS can and should interpret EPA's direction as an expectation that LSS will translate the tissue values to appropriate sediment concentrations, providing the supporting rationale for its approach.

Decision:

LSS is to follow the direction provided by EPA to incorporate at least the PRGs available from the harbor-wide RI/FS process, and SLVs for COIs where PRGs are not available, in evaluating the impacts of dredging and/or taking other removal actions to a range of concentrations vertically. Consistent with my prior dispute decision, LSS shall also include an evaluation of implications of dredging to the extent of 5 ppm DDX vertically. LSS also may evaluate implications of active removal to other concentrations, including concentrations that may be derived primarily from a mass to volume relationship.

ELEMENT IV. SOURCE OF FURANS

Discussion:

I am sympathetic to the argument that an objective description of what is known or believed about all potential sources is appropriate in an EE/CA. EE/CA guidance anticipates source description as a relevant portion of the site characterization section of the EE/CS report. That said, the need for specific source attribution information in the RAAC report (as opposed to the EE/CA report) seems compelling only if this information has a material impact on the findings or conclusions of this specific report, which has not been suggested. LSS' responses suggest that additional efforts to address EPA's concerns regarding LSS' draft language, including presentation of supporting documentation, may close the gap between the parties. I am hopeful that this is the case, but believe it will be more effective for both parties to focus their efforts on crafting appropriate source language for the EE/CA report, rather than holding up finalization of the RAAC report for this purpose.

Decision:

The source attribution information for dioxins/furans shall be removed from the RAAC report. It is expected that the EE/CA report will include a summary of supportable source attribution information.

ELEMENT V. EVS MODE

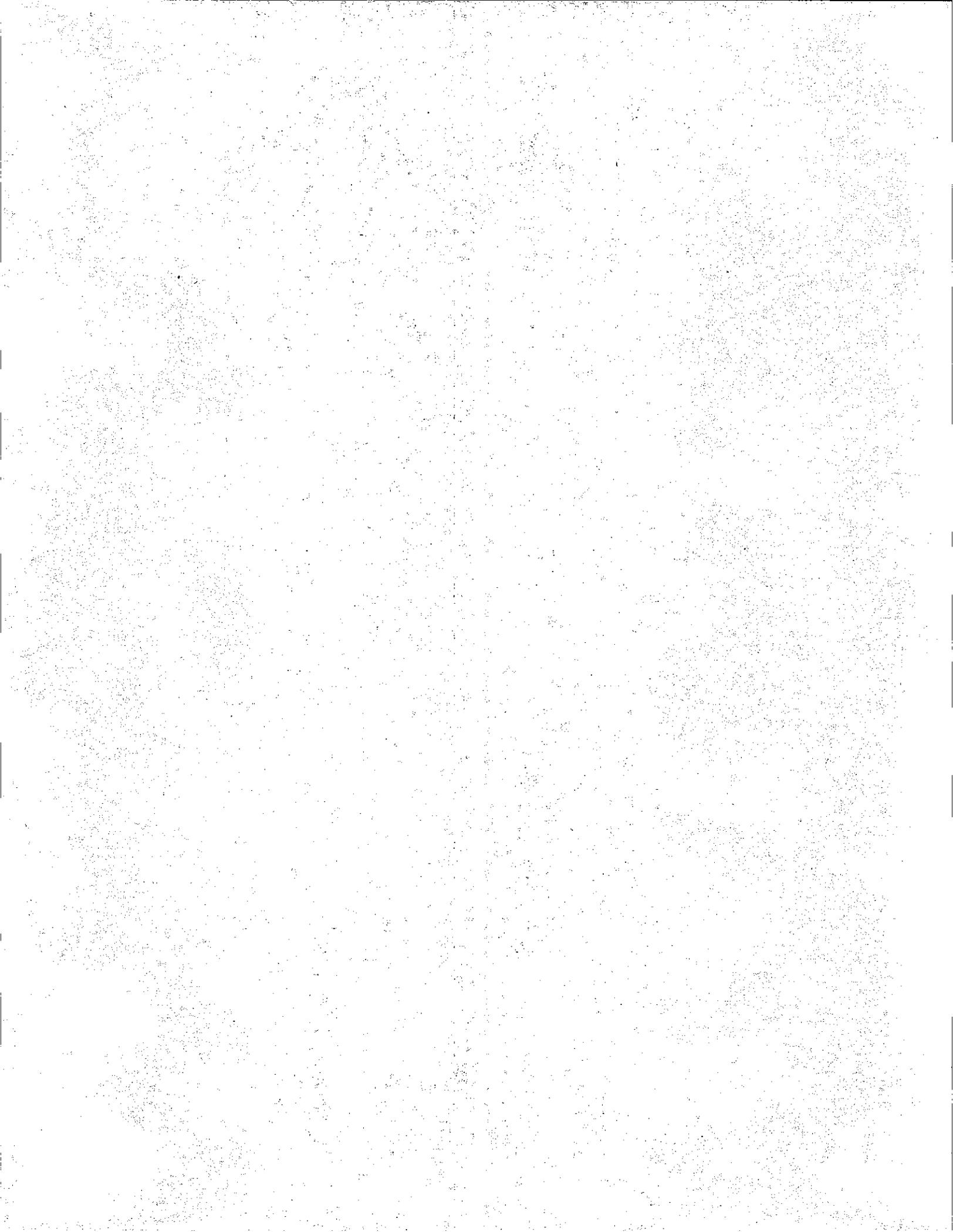
Discussion:

Rather than diving into the merits of the very specific modeling debate, I am drawn to Figure 4-2 from the draft RAAC report, including as modified on the top portion of Slide 17 from LSS's "LSS/EPA Dispute Meeting" power point presentation. When I consider this figure I note several features. First, the three "islands" in question are not isolated point values, but rather individually each appear to be easily greater than a half acre in size. Admittedly, the contiguous area of contamination directly off-shore of the Arkema property is appreciably larger, but analogous with a point I made in the prior dispute, we need to be cautious not to understate a potentially significant feature merely because it may seem overshadowed by the even more significant scope of another feature. Second, the "space" interpreted between the three "islands", taken in aggregate, appears to have appreciably less than half the area of even the smallest of the three "islands". Third, the total area of the "space" between the three "islands", taken in aggregate, appears to consist of less than 10% of the total area when the three "islands" are included within one boundary as shown on the upper portion of Slide 17. Keeping in mind both the decisions already stated in this memorandum and that we are moving to the phase of developing and evaluating alternatives -- not yet selecting the removal action, these three observations suggest that the distinction between the positions does not warrant additional debate at this time. Whether using the interpretation of discrete "islands" or of a contiguous area, it would appear that alternatives developed to address this area within the 5 ppm DDX contours or contour would consider 1) the efficiencies of addressing all three "islands" concurrently given their proximity, and 2) any potential advantages of splitting the action(s) into parts or phases.

Decision:

LSS is not required to adjust its contouring to represent the three "islands" as a contiguous area within a single 5 ppm DDx contour. However, LSS shall note in the final text that the variability of the model increases for the area of the three downstream "islands", suggesting some uncertainty as to whether the data could be representing a contiguous area rather than the three discrete islands depicted in Figure 4-2. Consistent with the decision for Element I of this dispute, LSS shall develop removal alternatives to address the areas defined laterally by the 5 ppm DDx contours, with the vertical dimension addressed consistent with the decisions for Elements II and III.

Attachment



Administrative Record

Final Decision on Disputes of June 3, 2011, by Legacy Site Services LLC (LSS) Regarding Technical Direction for Completion of the Removal Action Area Characterization Report In the Matter of U.S. EPA Region 10 Docket No. CERCLA 10-2005-0191

1. CDM CD ROM: "LSS' Reply to EPA's July 8, 2011 Response to LSS' June 3, 2011 Dispute Statement, Arkema Inc. Portland Facility" (July 15, 2011)
2. Letter from Sean Sheldrake to Daniel D. Opalski Re: EPA Reply to LSS' July 15, 2011 Response; Formal Dispute under U.S. EPA Region 10 Docket NO. CERCLA 10-2005-0191 (June 20, 2011)
3. LSS Presentation: "LSS/EPA Dispute Meeting" (August 2, 2011)
4. "Table 1 – Near Final EPA List of Focused PRGs for the FS from 4 March, 10 March, and 17 March 2010 Meetings with LWG Meetings Notes." (March 24, 2010)

