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MFG Project No. 5189.20
July 30, 1998

Ms. Mary Jane Nearman
United States Environmental Protection Agency
Region 10
1200 Sixth Avenue
Seattle, Washington 98101

Subject: REVIEW OF EPA'S RI/FS BASIN-WIDE TECHNICAL WORK PLAN



Dear Ms. Nearman:

At the request of ASARCO Incorporated and Hecla Mining Company, we have conducted a review of the *Draft Technical Work Plan for the Bunker Hill Basin-Wide RI/FS Panhandle Region of Idaho, including Benewah, Kootenai, and Shoshone Counties*. The following are our comments on that work plan. Submission of these comments is without prejudice to the position of the companies that EPA's conducting of the Basin RI/FS under present circumstances is unlawful and inappropriate.

Our comments are based on the current review of this work plan and work conducted by McCulley, Frick & Gilman (MFG) staff in the Coeur d'Alene River Basin over the past ten years, initially at the Bunker Hill Superfund Site and subsequently within other areas described in this work plan.

Our view is that this work plan does not conform to the process described in the National Oil and Hazardous Substance Pollution Contingency Plan (NCP) and the *Guidance for Conducting Remedial Investigations and Feasibility Studies under Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA)* (EPA, 1988). A significant concern is that the EPA has been conducting large scale sampling programs before and as the work plan was developed and before the public has had an opportunity to comment on the work plan.

With regard to the scope and content of the work plan, the document does not properly conduct the scoping process. Because it does not consider the majority of the existing information, it is outdated and devoid of the detail necessary for a meaningful work plan. In addition, it does not consider non-mining related influences and lists potential ARARs and Preliminary Remediation Goals (PRGs) that are not appropriate given the complex setting of the Coeur d'Alene River Basin (CDARB). The following is a discussion of these issues.



I. EPA failed to properly conduct the scoping process as directed in RI/FS Guidance (EPA, 1988)

During the scoping phase of an RI/FS project, it is important to evaluate the existing data before developing a work plan. The EPA guidance document (EPA, 1998) states, "The ability to adequately scope a specific project is closely tied to the amount and quality of available information" (p.2-3). It is also necessary to begin to involve the community during the scoping phase so that environmental decisions made are consistent with the community desires. The EPA guidance document states, "existing data can be used to determine the additional work that needs to be conducted in the field and within the community." (p.2-5).

The vast majority of existing data collected previously in the Basin should be evaluated for quality and made available for public consideration to see what data gaps exist before planning for, and proceeding with, additional data collection activities. Without an evaluation of this data the document cannot adequately serve its intended purpose of focusing site actions and investigative activities. As a result of EPA ignoring large amounts of existing information, the document only provides an example of the data quality objectives that will be developed in the future for each sub-basin area. There are no detailed objectives developed at this time. EPA Guidance states, "the level of detail used to describe specific tasks depends upon the amount and quality of existing data" (p. 2-12). This work plan should reflect the high level of detail available through an evaluation of the extensive existing information.

II. The Draft work plan is already outdated and thus hinders public involvement regarding activities that may have already occurred.

It appears that many planning steps and sampling efforts were conducted prior to the development of this work plan. The work plan proposes a "brainstorming" meeting which, it appears, may have already occurred (p.6-1). It is inappropriate to conduct large scale sampling efforts in advance of the development of a work plan and also inappropriate to omit an evaluation of data from these efforts in the context of the current draft work plan.

A specific example of this approach is the three basin-wide surface water sampling events conducted by URS Grenier and CH2M Hill in 1997, without a fully developed work plan. It would appear that these sampling events were just very expensive replicas of prior events and have not added any new understanding or specific information that would be helpful for remedy selection. The rushed, haphazard occurrence of these activities without acknowledgment in the work plan is not consistent with guidelines as well as disingenuous with regard to the public comment process.

The development of an RI/FS work plan that provides a scope of work for a cost-effective characterization of the conditions in the basin, as they relate to the need for remedial actions, is not possible until all available information is fully evaluated. Initiation of activities implied by this very general document will result in a contractor free for all, whereby large amounts of new data will be collected and added to the already large volumes of existing data.

III. The work plan does not include specific detail on activities to be undertaken, the schedule for these activities, or associated costs.

Because of the amount of existing information available, this work plan should describe the work necessary to achieve the RI/FS objectives in a detailed manner so that the public can effectively comment on the activities, schedule and costs. The EPA guidance document states that for federal-lead sites, a detailed summary of projected labor and expense costs and key assumptions should be included in the work plan. Cost can vary depending on the adequacy of existing data, size and complexity of the site; sampling and analysis required; and bench- and pilot-scale studies required (EPA, 1988, p. 2-14). Costs associated with this basin-wide RI/FS process could escalate very quickly due to the size of the site, or be kept in check by relying on existing data. This work plan promotes mismanagement by not even attempting to present a detailed scope of work, and a corresponding schedule of activities and associated cost estimates.

IV. The baseline risk assessment described in the RI/FS work plan will result in artificially high risk due to over-conservatism: use of PRGs and ARARs selection must be appropriate and take into account non-mining factors operating in the basin.

The planned risk assessment appears to be strictly a chemical-based risk assessment that completely ignores EPA, 1998 guidance on assessing all potentially limiting factors. Use of standard CERCLA-style risk protocol will not recognize background and other non-mining influences. Estimated hazards will result in projections of unacceptable risk levels for mammals, songbirds and waterfowl at soil/sediment concentrations below background/baseline, in the face of site-specific evidence of healthy populations. Standard risk assessment protocols often predict unacceptable risks at concentrations below background (especially for mineralized areas), when modeled and species extrapolated effects information are used to predict risks. Real data on population levels and reproduction success must be used when evaluating the condition of the resource versus potentially limiting factors, whether they are due to chemical effects, habitat loss/degradation, or biological effects, (i.e., introduction of exotic species). A simple chemical-based risk assessment will not provide realistic estimates of risk to the ecological community or human health. The work plan sections on risk assessment seem solely to focus on levels of metals contamination and do not consider any of these other important factors.

Use of PRGs, as a basis for identifying unacceptable risks, (which are generic screening level values), will result in overly conservative estimates of risk for human health and the ecological community. The planned use of PRGs as part of a risk-based evaluation will not adequately address the fact that this is a highly mineralized area with elevated concentrations of metals occurring naturally throughout the basin. Within the CDARB, literally hundreds of studies have been conducted to evaluate basin conditions and the metals concentrations in various media and geographic areas of the basin. The information contained in the existing studies should allow for prioritization and focusing on potential source areas and sinks within the basin. A screening level risk assessment based only on the use of generic PRGs will result in the artificial characterization of broad areas as being potentially contaminated.

Similar concerns exist for potential chemical-specific ARARs identified by EPA, such as the Ontario Sediments Standards. As an example, application of criteria from the northern Great Lakes to the highly mineralized CDARB will result in broad and inaccurate characterization of contamination and ultimately will inappropriately influence the FS and remedy selection process.

V. Non-Mining influences are not addressed in the document.

Baseline factors such as metals contamination and channelization of the SFCDR associated with urbanization, as well as impacts from the operation of Post Falls Dam, transportation corridors, logging, agriculture, and wildlife management activities do not appear to be considered in the RI/FS process. When these factors are not recognized, cause and effect relationships are not accurately developed, resulting in misinterpretation of the data. For example, failure to consider the effects of habitat availability, or lack of due to urbanization or management decisions, could influence risk assessment and remedy selection decisions. This is especially true given the extremely large and diverse area covered by the RI/FS work plan. Unless these factors are considered both in terms of their effects on human health and the environment as well as their role and impact in developing viable remedial actions, large amounts of money could be spent on remedies that may slightly reduce metals concentrations but will cause no real improvement in the overall condition of the environment.

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In conclusion, this work plan does not adhere to the CERCLA process as described in the NCP, correspondingly, it does not present a strong foundation on which to base an RI/FS. The process described will be costly and lengthy contributing little new information to the understanding of Basin systems, which is so critical to the development of a successful remedy.

Sincerely,
MCCULLEY, FRICK & GILMAN, INC.



Diane Bacher
Regulatory Specialist

DB/lbn

cc: Joanne Grossman - Covington & Burling
Betsy Temkin - Ballard Spahr Andrews & Ingersoll
Mike Thorp - Healer Ehrman White & McAuliffe
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