

January 21, 2004

Committee on Coeur d'Alene River Basin
January 22, 2004 - January 23, 2004
500 5th Street, N.W.
Washington, DC

Project Title: Superfund Site Assessment and Remediation in the Coeur d'Alene River Basin
Project Identification Number: BEST-K-02-04-A

Comments on behalf of:

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Health and Environment Program
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Introduction

We are always appreciative of Academy studies, and have used Academy reports regularly to support regulations that adequately protect public health and the environment. The following comments apply only to the troublesome specifics of this particular effort now under way. Our goal is to see the Academy and this committee conduct a study of the EPA Superfund clean-up effort in the Coeur d'Alene region that is scientifically defensible and free of bias.

We therefore have four requests: 1) that the committee provide advice on clean up of Lake Coeur d'Alene, 2) that the committee be balanced, that members with conflicts of interest be removed, and that such conflicts and biases be disclosed on the NAS website, 3) that the committee issue its assessment within six months, so that clean-up now underway will not be hindered or delayed; and 4) that the committee take full advantage of the numerous assessments already completed on the public health and environmental impacts of the pollution at this site.

The balance of these comments support the above four requests.

We ask that the committee consider remedial options for cleaning up Lake Coeur d'Alene

By way of background, the smelting-milling towns near the operation and the operation itself have been the subject of regulatory actions and interest since the late 1970s-early 1980s. Operations were ongoing in a large way from the late 1800's until the late 1970s. During that time, many tens of millions of tons mining wastes containing lead, arsenic, numerous other toxicants, were dumped directly into the waters of the Coeur d'Alene Basin.

The basin has been one of the leading silver, lead, and zinc-producing areas in the world, with production of approximately 1.2 billion ounces of silver, 8 million tons of lead, and 3.2 million tons of zinc. An estimated 62 million tons of tailings were discharged to streams from the beginning of ore processing in 1884 until discharge to streams was discontinued in 1968. The tailings contained an estimated 880,000 tons of lead and more than 720,000 tons of zinc. By the 1950s, mine tailings piped from the river covered 2,000 acres of the Cataldo Mission Flats. Sediment dredging continued until 1968. Approximately 72 million tons of this sediment contaminated with mine tailings have been discharged into the Coeur d'Alene River.

Unfortunately, EPA's cleanup plan specifically excludes Lake Coeur d'Alene (although it is still a Superfund lake), and the North Fork of the Coeur d'Alene River. The massively damaged Coeur d'Alene National Forest has some of the worst watershed damage of any National Forest (the forest averages 11 road mile per square mile of forest). Floods sweep across the 100 million tons of toxic sediments covering about 15,000 acres of wetlands. It is the combination of floods from logging and toxicants from metal mining that causes the toxic floods polluting Lake Coeur d'Alene and the Spokane River.

We ask that the committee consider the causal association between forest damage and movement of toxicants into populated areas (the Lake and Spokane River) and provide advice on remedial options for cleaning up Lake Coeur d'Alene.

We ask that the committee be balanced, that members with conflicts of interest be removed, and that such conflicts and biases be disclosed on the NAS website

The mission of the NAS is to provide credible and independent scientific analysis and advice to government. The NAS cannot accomplish this vital mission if its objectives and deliberations reflect strong bias. To ensure transparency, credibility, and the public's ability to adequately judge the biases of prospective panelists, NAS must disclose more complete information about each nominee's research funding and other potential sources of financial conflict of interest. This is an issue that has not been adequately addressed by the NAS's efforts to improve the panel formation process during the past two years, and the information provided on the NAS website on these panelists is inadequate to evaluate the committee's balance. Without more comprehensive information about funding and potential conflicts of interest, the public cannot fully evaluate whether or not the provisional committee members reflect a reasonable composition of perspectives.

Our review of the biographical information provided by the NAS on its website, and our own limited research (mainly from documents available on the internet) about the committee raises concerns about conflicts of interest and potential industry-bias of several panel members. While we do not impugn the integrity or qualifications of any of the proposed panel members, we are deeply concerned about balance and potential bias among some members. We remain concerned that two members of the committee have financial ties to the mining industry and others spent their careers working for consulting firms that mainly advise corporate defendants as expert advisors or witnesses in Superfund litigation (see Table at end of these comments). They represent an industry perspective that is inappropriate, and certainly not counter-balanced by members with ardent environmental credentials.

Specifically, Teresa Bowers works for Gradient Corp. While this fact is revealed on the NAS website, the NAS has not disclosed that Gradient through its website asserts that it can save, and presumably has saved, its polluter clients millions of dollars in lawsuits and clean up costs. Bowers through Gradient has represented the National Mining Association, whose membership includes the Coeur d'Alene Mining Co. and Hecla Mining Corp., companies that may be deemed responsible parties in the ongoing clean-up litigation. We believe Bowers should be removed from the committee.

Similarly, Corale L. Brierley consults with mining and chemical companies. While this in and of itself does not warrant exclusion from an NAS panel for conflicts of interest, Brierley owns five bio-mining patents that have been licensed to companies that may be involved in the clean-up of this site. This was not disclosed on the NAS website. Since these technologies may be evaluated as part of this study, these patents represent a conflict of interest that warrants her exclusion from this committee.

As to balance, there are at least four other committee members -- Drs. Tollerud, Barnthouse, Clarkson, and Kendall -- who have consulted or conducted paid research for industry clients. Thus, six of the nineteen current committee members represent an industry perspective, nearly a third of the total committee membership. While several committee members have done consulting or research for government agencies, our research suggests that only one has done similar work for environmental or community groups with a stake in the outcome of this study. We do not believe that academics or consultants who've done work for the government constitute appropriate balance to the potential bias of industry consultants on this committee. Academics and government employees are most likely to be neutral third parties that we hope would constitute the majority of this committee.

Panels whose members reflect a strong bias toward the perspective of regulated industries undermine the cherished credibility of NAS advice. In NAS's own words: "The reputation of the National Academies for objectivity,

integrity, independence, and competence is one of its most valuable assets.”¹ Conflicts of interest or significant bias or imbalance on the panel must be avoided. Congress has required that NAS determine that “committee membership is fairly balanced...” 5 U.S.C. App. §15(b)(1)(B). NAS has stated “it is essential that the work of committees...not be compromised by issues of bias and lack of objectivity. ...Questions of lack of objectivity and bias ordinarily relate to views states or positions taken that are largely intellectually motivated or that arise from the close identification or association of an individual with a particular point of view or the positions or perspectives of a particular group.”² Panelists who are employed by industry, frequent consultants to industry, or active participants in associations that have taken a position on the issue at hand, or otherwise have strong industry ties, may seek to downplay the toxic effects of an agent on human health and well-being. Or they may overemphasize or focus solely upon the benefits of the agent, and may not be open to discussion of other alternatives.

We ask that this committee be recomposed to eliminate this bias by removing the two industry consultants, and by the addition of at least several new committee members with the appropriate expertise whose perspective reflects public health and environmental concerns. If industry consultants have specific knowledge or expertise of value to the deliberations of a committee, then invitations to address the committee during public meetings are appropriate.

We ask that the committee issue its assessment within the allotted timeframe, so as to ensure that clean-up now underway will not be hindered or delayed

The evidence suggests that funding for this study is part of an effort to delay or postpone the eventual clean up of the site. The driving force behind the \$850,000 appropriation was the mining companies and their political allies, U.S. Senators Craig and Crapo, and U.S. Representative Otter, who want to use the credibility of a NRC/NAS committee to delay clean-up and obfuscate the serious health and environmental damage in the Coeur d'Alene River Basin. Presumably, their hope is that this committee will somehow determine that the contamination is not serious. This attempt to use the NRC/NAS committee as a means of delaying or denying appropriate mitigation and liability can only damage the credibility of the NRC in the long run. We ask that this NRC committee proceed rapidly towards completion of its report, and that mitigation not be delayed or denied in the interim.

We ask that the committee take full advantage of the numerous assessments already completed on the public health and environmental impacts of the pollution at this site.

Over the last 25 years, over a dozen peer-reviewed papers about this site have appeared in the scientific literature. They include those describing EPA's principal health risk assessment tool for childhood toxic lead exposures, the computerized Integrated Exposure-Uptake Biokinetic Model, or IEUBK model. The IEUBK model and its evaluation, besides being the subject of multiple published papers in the peer-reviewed literature, has been evaluated and endorsed by expert panels of the U.S. EPA's independent Science Advisory Board (SAB).³ The charge to the Committee is to review what the scientific underpinnings were for the regulatory actions taken by the State and EPA Region 10 for both phases of Superfund designation and clean-up. We encourage the Committee to utilize all avenues of expertise at their disposal, including the numerous assessments and data reviews already completed. In this way, the Committee can issue a thorough report as rapidly as possible, providing a full and informed assessment of how to best provide protection of the surrounding communities.

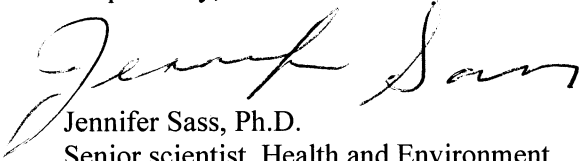
¹ NAS, “The National Academies’ Study Process,” 2003, available online at <http://www4.nationalacademies.org/news.nsf/0a254cd9b53e0bc585256777004e74d3/3e6ad00d15066e8d85256ca70072dc52?OpenDocument>.

² NAS, “Policy on Committee Composition and Balance and Conflicts of Interest,” at 4 (2003)

³ SAB report. EPA-SAB-EHC-99-004. November, 1998

Thank you for the opportunity to present comments.

Respectfully,

A handwritten signature in cursive script that reads "Jennifer Sass".

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Senior scientist, Health and Environment
Natural Resources Defense Council
Washington, DC

Michael Jacobson, Ph.D., Director
Center for Science in the Public Interest (CSPI)
Washington, DC

National Academies Coeur d'Alene River Basin Committee Chart

Name	Title	Industry Affiliations disclosed in BEST Bio	Industry Affiliations
David J. Tollerud, M.D., MPH	Professor of public health, medicine, and pharmacology/toxicology at the School of Public Health and Information Sciences, University of Louisville, and chair of the Department of Environmental and Occupational Health Sciences.	No Disclosure	<ul style="list-style-type: none"> “Ambient Particulates, Allergens and Asthma”, Co-Investigator, Electric Power Research Institute, 1997-2000, \$149,011. (http://www.drexel.edu/pubhealth/html/tollerudev.pdf)
Herbert E. Allen	Professor of Environmental Engineering, University of Delaware and director of the Center for the Study of Metals in the Environment. Previously, Director of the Environmental Studies Institute and professor of chemistry, Drexel University.	No Disclosure	None Found
Lawrence W. Barnhouse	President and Principal Scientist of LWB Environmental Services, Inc. Formerly at Oak Ridge National Laboratory	<ul style="list-style-type: none"> Consultant with McLaren-Hart, Inc. 	<ul style="list-style-type: none"> Completed a study for General Electric, downplaying the effects of PCBs on Hudson River fish-“Effects of historic PCB exposures on the reproductive success of the Hudson River striped bass population.” (<i>The Times Union</i>, 2/7/03, B1) (Environ Sci. Technol. 2003 Jan 15;37(2):223-8.)
Earl H. Bennett	Retired Dean of the College of Mines and Earth Resources College of Science, University of Idaho; Director of the State Geological Survey (IGS).	No Disclosures	None Found
Teresa S. Bowers	Principal at Gradient Corporation. Formerly, Dr. Bowers held research and visiting faculty positions at Massachusetts Institute of Technology and Harvard University.	<ul style="list-style-type: none"> Gradient’s clientele includes mining and smelting industries, chemical commodities, specialty chemicals and pesticides manufacturers, petroleum, gas and oil pipeline companies, manufacturing concerns (auto, aircraft, tires, machinery, paper), utilities, and electronics companies. (http://www.gradientcorp.com/clients.html) “Gradient has performed as an advocate for single 	<ul style="list-style-type: none"> Dr. Bowers is a consultant, through Gradient, to the National Mining Association whose membership includes Coeur d’Alene Mining Company, a PRP in the Coeur d’Alene case. (http://www.nma.org/about_us/memb_directory.asp) Hecla Mining Corporation, another Cd’A PRP responsible

		<p>parties or subgroups of PRPs [Possibly Responsible Parties] in cost allocation disputes...” http://www.gradientcorp.com/5_PRPcost_allocation.html</p>	<p>for releasing approx. 20 million tons of hazardous metals in the Coeur d' Alene, was also member of NMA through May 27, 2002. http://web.archive.org/web/20020205000027/www.nma.org/memberlist.html)</p> <ul style="list-style-type: none"> • Dr. Bowers is also prominently listed on Gradient’s site for her expertise in advising, “Industrial clients and/or their outside counsel for [cost] allocation work.” http://www.gradientcorp.com/3_toxic_torts.html) • Completed a May 2002 report on the cleanup of the Doe Run Company’s smelter operations in Herculaneum, Missouri whose validity was contested by EPA Superfund officials who said Bowers misrepresented the contamination danger and lead concentrations at the site. (St. Louis Post-Dispatch, 12/27/02, pg.1) • Testified in May 2000 on behalf of the Lead Industries Association (now defunct) and Association of Battery Recyclers before a U.S. EPA Science Advisory Board meeting criticizing EPA’s residual assessment for the secondary lead smelter sources. http://www.gradientcorp.com/trends/18/Spring00.pdf, pg. 5)
<p>Corale L. Brierley</p>	<p>Brierley Consultancy, LLC.</p>	<ul style="list-style-type: none"> • Consultant to the mining and chemical industries. • Former Chief of environmental process development for Newmont 	<ul style="list-style-type: none"> • Co-holder of five “bio-mining” patents licensed to several mining and mineral companies (U.S. Patent No.: 4,992,179; 4,898,827; 4,789,481;

		<p>Mining Corporation.</p> <ul style="list-style-type: none"> • General partner at Vista Tech Partnership, Ltd. • President of Advanced Mineral Technologies (now defunct). 	<p>4,729,788; 4,690,894.)</p> <ul style="list-style-type: none"> • Sits on a panel convened in 2000 to “create a knowledge base for...separation processes that can be used by the U.S. mining industry,” through the National Mining Association. (http://cast.mining.vt.edu/Mission/roadmap2003.pdf, pg.3) • Consultant to Globex Mining Enterprises, a gold and base metals exploration company. (Business Wire, 04/09/98)
Edwin H. Clark, II	President of Clean Sites Inc. in Alexandria, VA.	No Additional Disclosure	None Found
Thomas W. Clarkson	J. Lowell Orbison Distinguished Alumni Professor of Environmental Medicine and Professor of Biochemistry & Biophysics, and Pharmacology & Physiology in the University of Rochester School of Medicine and Dentistry.	No Disclosure	<ul style="list-style-type: none"> • Research on genetic aspects of nutrition and toxicology supported in part by the Heinz Institute of Nutritional Sciences and CanTox. (J. Amer. Coll. Nutr. 2001;20:119-28) • Research on methylmercury and children supported in part by the Electric Power Research Institute. (Environ. Health Perspect. 2000;108:257-63) • “Funding for the project [on mercury in the Seychelle Islands] was partially provided by the Electric Power Research Institute (\$486,000), the National Tuna Foundation (\$10,000), and the National Fisheries Institute (\$5,000).” (http://web.archive.org/web/20010117171300/http://www.jifsan.umd.edu/Rv99AnRep.htm)
Edmund A.C.	Senior scientist with Cambridge	No Additional Disclosure	None Found

Crouch	Environmental, Inc.		
Alison C. Cullen	Associate Professor, Daniel J. Evans School of Public Affairs, University of Washington. Also serves as a technical consultant to the Natural Resources Defense Council.	No Disclosure	None Found
Joseph H. Graziano	Professor of Environmental Health Sciences and Pharmacology; Associate dean for research, Columbia University.	No Disclosure	None Found
Mauricio Hernandez-Avila	Director of the Center for Public Health Research of Mexico's National Institute of Public Health. Previously, Director of epidemiological surveillance and chronic diseases and accidents, Ministry of Health in Mexico.	No Disclosure	None Found
David L. Johnson	Professor of Environmental Chemistry, State University of New York College of Environmental Science and Forestry.	No Disclosure	None Found
Ronald J. Kendall	Founder and Director of The Institute of Environmental and Human Health at Texas Tech University and Texas Tech University Health Sciences Center, and founding chair and professor of the Department of Environmental Toxicology, Texas Tech University.	No Disclosures	<ul style="list-style-type: none"> • According to a New York Times article, research on the effect of atrazine on male clawed frogs was supported by Syngenta, which makes atrazine. (New York Times, 11/19/02, p. F2) • Consultant to EcoRisk, Inc., whose clients include Chlorine Chemistry Council, Dow-Elanco Corporation, Ciba-Geigy Corporation, Dow Agrichemical, and Syngenta Crop Protection, Inc. (http://www.ecorisk.com/consult.htm)
John C. Kissel NEW ADDITION	Associate Professor, Department of Environmental and Occupational Health Sciences (DEOHS), School of Public Health and Community Medicine, University of Washington.	No Disclosures	None Found
Thomas W. LaPoint	Professor in the Department of Biological Sciences and Director of the Institute of Applied Sciences, University of North Texas.	No Disclosure	None Found
David W. Layton NEW ADDITION	Senior environmental scientist, Lawrence Livermore National Laboratory (LLNL), University of California.	No Disclosure	None Found
Jerome O. Nriagu	Professor of environmental chemistry and director of the Environmental Health Sciences Program, School of Public Health, University of Michigan, Ann Arbor.	No Disclosure	None Found
Rosalind A. Schoof	Consultant in toxicology and risk assessment with Integral Consulting, Inc.	<ul style="list-style-type: none"> • Consultant for PTI Environmental and Exponent. 	<ul style="list-style-type: none"> • Served as a scientist at the Mercer Island office of the consulting

<p>RESIGNED</p>			<p>company Gradient Corporation as recently as July 2002. (Seattle Post Intelligencer, 07/03/02, A1)</p> <ul style="list-style-type: none"> On July 13, 1998, Schoof submitted a sworn declaration in support of Asarco in a letter the company wrote to the Washington State Department of Ecology (Ecology) asking for lower residential soil cleanup levels for arsenic and lead at the Everett Tacoma Smelter cleanup site in Everett WA (ASARCO is a PRP that contributed 14.16 million tons of hazardous metals in the Coeur d' Alene basin). Source: Attachment B1-1 to Appendix B (Responsiveness Summary) to Ecology's Everett Smelter Site Integrated Final Cleanup Action Plan and Final Environmental Impact Statement for the Upland Area, dated November 19, 1999.
<p>C. Herb Ward</p>	<p>Foyt Family Chair of Engineering; Chair of the Department of Civil and Environmental Engineering, Rice University.</p>	<ul style="list-style-type: none"> Directs the Department of Defense Advanced Applied Technology Demonstration Facility, and directs the activities of the National Center for Ground Water Research. 	<p>None Found</p>