

2004 National Site Assessment Symposium and Training - Proceedings

Tuesday, June 29th, 2004

Introduction

William Ross, Acting Chief of State, Tribal, and Site Identification Branch, welcomed everyone to the Site Assessment Symposium, touched on management challenges, and provided an overview of the sessions that would occur over the next two days.

Ken Kloo, Administrator of the NJDEP Brownfields program and Chair of the ASTSWMO focus group, acknowledged special contributors and noted the good turnout considering the current economic climate. Representatives from 37 different states, 29 different state agencies, and seven different Tribal organizations attended this year's Symposium.

Management Panel

Region 9 Superfund Highlights, Challenges, and Perspectives

Nancy Lindsay, Deputy Director of the Superfund Division for U.S. EPA Region 9, noted that Region 9 is a diverse Region that faces many challenges, including a heavy reliance on groundwater. The Region has 126 NPL sites, 25% of which are "area-wide" sites with contaminated groundwater. Ms. Lindsay noted that the Region is a bit behind other Regions with regards to construction completion (46%), but must also manage a significant number of mega-sites, which often cost over \$50 million to clean up. Additionally, there are many federal facility sites in the Region. Other challenges include perchlorate issues affecting drinking water, issues with naturally occurring asbestos in schools, and TCE toxicity, which has been determined to be greater than originally thought. The Region is listing 1-2 sites per year; Site assessment still has 600 sites to review.

In order to address these issues, the Region employs cutting edge technology, works closely with states and Tribes, and has a good community involvement program. There is also support for a strong listing program but there are many competing demands (finishing sites to construction completion, homeland security, the war in Iraq). Although the budget outlook is grim, the program remains resilient.

California Perspective

Dorothy Rice, Deputy Director of CA DTSC, Site Mitigation and Brownfield Reuse Program, noted that some of California's continuing challenges include dealing with naturally occurring contaminants like asbestos, while trying to realize the governor's environmental action plan which promises traffic relief and improved water quality. There is a big focus on environmental issues at school sites; in fact, a statutory requirement mandates site assessments at all new school sites as well as those being expanded. Ms. Rice also noted that

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- California laws differ from federal laws, which leads to confusion
- the state needs to increase the pace of Brownfields cleanup, and
- California needs to develop an inventory of Brownfields sites.

California draws upon years of experience in site assessment, as well as innovations such as the Cal/EPA Environmental Justice Strategy in order to cope with a myriad of environmental concerns. The state is focused on cleaning up and reusing Brownfield sites (e.g., the Bay Street Mall on the Emeryville site and the San Diego ballpark site). California's policy of environmental review helps tailor the clean-up process to the individual site, making it more cost effective, while the development of guidance documents focuses on a new generation of environmental protection. Ultimately, CA DTSC, which is a department within the California EPA, is trying to be a positive partner working with local government and volunteers.

Mining Impact on a Tribal Community

Wayne Garcia, Tribal chairman of the Yerington Paiute Tribe, described the impact on his tribe of the Yerington Anaconda Mine in Nevada. The Tribe lives on 1600 acres of land near the mine, which was historically used for copper mining until it was abandoned in 2000. The Tribe has cultural ties to the Earth and considers aquifers to be the lifeblood of Mother Earth. Tribe members feel a responsibility for environmental protection, as well as the safety of their people for generations to come.

Repeated requests by the Tribe to the Nevada Governor have not been fully addressed; the Tribe is not satisfied with Nevada Department of Environmental Protection remedial actions. The Tribe wants the site to be listed on the NPL so that more resources are allocated for its remediation. The state opposes NPL listing. Additionally, the government's community involvement has been poor and meetings have been uninformative. EPA and BLM requested "short-term actions" in 2001, yet actual soil sampling did not begin until June 15, 2004. The Tribe is concerned that the dust blowing across the reservation may be contaminated. Other Tribal concerns include lack of air monitoring, failure to provide basic groundwater monitoring, and no plan for remediation.

Superfund Studies-Recommendations Affecting States, Tribes, and Site Assessment

Elizabeth Southerland, Deputy Director, Office of Superfund Remediation and Technology Innovation, U.S. EPA

Gary King, Manager, Division of Remediation Management, Bureau of Land, IL EPA

The National Advisory Council for Environmental Policy and Technology (NACEPT) offered suggestions along five major themes:

- to increase the transparency and rigor of EPA decision making,
- to spend resources wisely, to expand coordination and collaboration efforts,
- to recognize that expensive cleanups deserve special attention, and
- to measure and communicate progress and performance comprehensively.

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The Agency and NACEPT support continued listing. The NACEPT committee, which consisted of subcommittees and a wide range of participants from industry and environmental organizations, was told to assume that there would be no additional funding for Superfund. The following bullets present a few of the NACEPT committee's recommendations. The slideshow of the presentation contains a more detailed summary.

- EPA should adjust HRS without a formal rulemaking;
- EPA should produce better information and data on the Superfund program and publish an annual report online;
- There should be better community involvement;
- Have other programs handle sites that don't need to be listed on the NPL (approach favored by industry);
- EPA should continue to invest in state and Tribal cleanup programs;
- The 120-Day Study expressed concern about funding out of Superfund appropriation; and
- EPA should measure how effectively it coordinates with states, Tribes, etc.

The 120-Day Study:

- encouraged EPA to continue to list sites on the NPL to motivate PRPs to cooperate; and
- emphasized that Regions should make a comprehensive list of sites and determine which program is best suited to address each.

Differing Site Assessment Processes Used by a State Voluntary Program, BF, SF, and Private Parties

Sven Kaiser, Office of Brownfields Cleanup and Redevelopment, U.S. EPA

Patricia Overmeyer, Office of Brownfields Cleanup and Redevelopment, U.S. EPA

Robert Myers, State, Tribal and Site Assessment Branch, U.S. EPA

Tom Crause, Manager, Office of Site Evaluation, IL EPA

This panel discussed the eligibility, applicability, and liability for Brownfields grants for site assessment and characterization, the kinds of assessments performed under Brownfields, Illinois Voluntary Cleanup Program, and the Superfund Preliminary Assessment/Site Investigation. Furthermore, the panel provided a brief update on the All Appropriate Inquiry Process; the Illinois Voluntary Remediation Program is intended to generate information required for site remediation, not for the purpose of providing liability relief.

Eligible Response Site: Meaning, Impacts, and the Role for Site Assessment

Susan Sladek, Office of Superfund Remediation and Technology Innovation, U.S. EPA

Randy Hippen, State, Tribal, and Site Identification Branch, U.S. EPA

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CERCLA Section 101 defines Eligible Response Sites, and other factors are taken into consideration in EPA's determination of whether a site should be excluded. With so many sites to be assessed, certain criteria are necessary to guide and streamline the decision process.

Site Discovery Programs

School Investigations Streamlined

Hamid Saebfar, Chief, School Property Evaluation and Cleanup Division, Site Mitigation and Brownfields Reuse Program, DTSC, California EPA, noted that the California Department of Toxic Substances Control's (DTSC) Schools Division plays a key role in the mandatory oversight of environmental assessments at proposed new or expanding school properties where acquisition and/or construction will be financed by state bonds. Due to general population growth, many California school districts currently face critical need to house increasing numbers of students, but find that available properties often have environmental concerns that, without mitigation or remediation, could impact student and teacher health, or result in future liabilities to districts. Because of school districts' time and money constraints, the Schools Division has developed numerous techniques to minimize sampling and investigation costs, while simultaneously maximizing site characterization.

Site Discovery in North Carolina

Jeanette Stanley, Chemist, Superfund Section, Division of Waste Management, Department of Environment and Natural Resources, described North Carolina's site discovery activities. Ms. Stanley's presentation included examples of past and recent successes, methodology, and future plans. Experiences with the investigation of pre-World War II fertilizer facilities and Site Inspection Prioritizations (SIPs) conducted around 1993 are being applied in the overall site discovery initiative in North Carolina. Numerous resources, both current and historical, have been used to identify and refine choices on sites with the greatest potential for posing ongoing risk to human health and the environment.

Perchlorate: Assessment of California Sites for an Unregulated Emerging Chemical

Matt Mitguard, Site Assessment Manager, U.S. EPA Region 9

Kevin Mayer, Regional Coordinator for Perchlorate, Region 9 Superfund Program, U.S. EPA Region 9

Perchlorate, a soluble and stable component of some rocket propellants and pyrotechnics, has been discovered nationwide since analytical improvements in 1997. EPA's 2002 draft assessment of perchlorate toxicity identified the principle effect as disruption of iodide uptake into the thyroid gland, which regulates metabolism and development, and

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noted that infants and young children may be particularly sensitive. Consideration of a federal standard for perchlorate is pending review and additional data gathering. Currently at least eight states have non-enforceable advisory levels for perchlorate in drinking water; California may establish an enforceable drinking water standard for perchlorate in 2005. Using site assessment tools, GIS technology, and a collaborative data and information sharing approach, the Region and the State are attempting to address perchlorate contamination.

Discovery Program in Puerto Rico

Ildefonso Acosta, Environmental Scientist, Emergency and Remedial Response Division, U.S. EPA

Region 2, noted that the U.S. EPA-Region 2 Superfund Program in coordination with the Puerto Rico Department of Environmental Quality Board (PREQB) conducted a Site Discovery Initiative in Puerto Rico to determine possible sources of contamination to municipal drinking water supply wells. A multi-program file search and multi-agency team site visits expedited site discovery, and facilitated the ultimate listing of a site on the NPL.

South Carolina Site Discovery Initiative

Jonathan McInnis, Program Manager, Federal & State Site Assessment Section, South Carolina Department of Health & Environmental Control, noted that the South Carolina Site Discovery Initiative began in the mid-1990s to identify, assess, and remediate former super-phosphate fertilizer manufacturing operations in Charleston. As the investigations progressed, the SC DHEC discovered extensive environmental contamination of surface soils, groundwater, and marsh sediments. Based on these findings, the SC DHEC realized that there were other historical industries that may have significant residual environmental problems. The USEPA/SCDHEC Self-Directed Work Team (SDWT) began to develop and screen a list of former industries. Each focus area was assigned to an individual who developed an initial inventory of potential sites and learned general process information about their particular industry. Presentations were made to the SDWT, and four focus areas were selected for the initial effort in 2002.

Linking Emerging Technologies to Site Application

Superfund Basic Research Program Overview

Beth Anderson, Program Analyst, National Institute of Environmental Health Sciences, noted that a central premise of the Superfund Basic Research Program (SBRP) is that there is a link between chemical exposure and disease outcome, and that understanding and identifying this link will help to establish new or improved prevention/intervention strategies. The National Institute of Environmental Health Sciences (NIEHS) believes that it is important for the SBRP to maintain constant communication to ensure that it

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meets its goals of developing: methods of detecting hazardous substances in the environment, advanced techniques for assessing human health hazards, and basic biological, chemical, and physical methods for reducing the amount and toxicity of hazardous substances.

Integrating Biological and Chemical Endpoints into Site Assessment

K.C. Donnelly, Professor and Chair, Environmental and Occupational Health Department, School of Rural Health, Texas A & M University, noted that whether developing an initial site characterization plan or selecting a final remedial design, the presence of complex mixtures and multiple affected media greatly complicates the process of site assessment. Using twelve years of samples from over 50 sites, environmental health researchers at Texas A&M have investigated the genotoxicity of complex mixtures, bioavailability of contaminants in sediment, and biomarkers of exposure in ecological and human populations. Findings show that the release of polycyclic aromatic hydrocarbons (PAHs) from a Manufactured Gas Plant (MGP) site impacted adjacent sediments in near, intermediate and far-shore samples.

Detection of Halogenated Dioxins and Related Chemicals: Development, Validation and Application of a Novel Dioxin Cell Bioassay for Site and Sample Characterization

Michael S. Denison, Department of Environmental Toxicology, University of California-Davis, noted that halogenated aromatic hydrocarbons (HAHs), including PCDDs, PCBs, and PCDFs, are a large and worldwide group of compounds which can have a significant impact on the health and well being of humans and animals. Thus, detection and quantification of these chemicals in environmental and biological matrices is of paramount importance. Chemically Activated Luciferase Expression (“CALUX”) cell bioassay can provide an estimate of the relative amount of HAH-like compounds present in samples. Used for prescreening large numbers of samples, it identifies those for subsequent analysis by more costly and time-consuming procedures.

One Cleanup Program Approaches

Update on OSWER Initiative/SA Task Force/One Cleanup Program

Ellen Manges, Program Coordinator, Office of Solid Waste and Emergency Response, U.S. EPA, noted that when Marianne Horinko became the administrator, one of her key priorities was working on the “One Cleanup Program.” The program is built upon existing programs, but goes beyond merely combining existing agencies into one bigger cleanup program. The program needs flexibility, creativity, and joint planning. The plan includes developing the following:

- more easily accessible site information including a new website;
- better measurements of success;
- opportunities for better communication between programs/agencies;

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- a federal executive committee aimed at getting inter-agency coordination; and
- area-wide pilot projects, which involves each Region identifying one area-wide problem and looking for common goals and ways to address larger problems.

Front Door Approach to Site Assessment in Region 4

Michael Norman, Chief, Superfund Site Evaluation Section, U.S. EPA Region 4, presented on this concept, which evolved from the joint EPA/SCDHEC self-directed work team, brings together different groups to work towards a common goal. Key concepts of the approach include group discussion and joint decision-making, as well as planning and site management development strategies. Group-based efforts offer many advantages, such as reducing or eliminating duplication of effort, streamlining the CERCLA site assessment process, and bringing together cross-program and interdisciplinary expertise.

Unified Phase Assessment

James M. McCreary, Chief, Brownfields & Site Assessment Section, EPA Region 3, noted that because of the changes in Superfund (pre-CERCLIS screening, Alternative Superfund Sites, State Deferral, State VCPs), conducting a Preliminary Assessment or a Site Investigation no longer means a site is slated for NPL listing. The Unified Phase Assessment (UPA) Initiative is a pilot project to develop a standard assessment platform, which is public/industry friendly, yet compatible with the individual programs within OSWER. In order to accomplish this, commonalities in assessment protocols of various programs (e.g., RCRA, Superfund) were examined. The UPA identified five important items to examine:

- Background information
- Site history
- Present site conditions
- Environmental concerns
- Legal concerns

A template for the Unified Phase Assessment (UPA) has been developed and is currently being field-tested on sites in the Brownfields program, RCRA program, and Superfund program as well as at an Acid Mine Drainage (AMD) site, all within EPA Region 3.

Pennsylvania's Voluntary Cleanup Program Interface with the RCRA Environmental Indicator Requirements under the 2004 Memorandum of Agreement

David E. Hess, Section Chief, Voluntary Cleanup and Standards Section in the Office of Land Recycling, noted that on April 21, 2004 EPA Region 3 and the Pennsylvania Department of Environmental Protection signed a Memorandum of Agreement (MOA) providing for a One Cleanup Program approach, combining the federal RCRA, CERCLA, and TSCA programs and the state's Voluntary Cleanup Program. One of the site assessment interfaces being examined is that of the RCRA Environmental Indicators (EI) process in relation to the PA voluntary cleanup Program assessment and attainment

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requirements. The state believes that their voluntary program can incorporate the EI informational requirements and be supplemented by the EI form proper. Mr. Hess also noted that voluntary programs get cleanups accomplished with less public money; an enforcement-based program might not have been able to realize as many successful cleanups.

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Redevelopment/Reuse

Superfund Redevelopment

Melissa Friedland, National Program Coordinator for Superfund Redevelopment, Office of Superfund Remediation and Technology Innovation, noted that the Superfund Redevelopment Initiative (SRI), launched in 1999, assists communities in their efforts to return Superfund sites to productive use. Through SRI, the Agency has developed policies, procedures, and practices designed to integrate reuse into the Superfund assessment and cleanup process. The Office of Superfund Remediation and Technology Innovation will issue the directive Integrating Reuse Considerations into Superfund Response Actions in late 2004 or early 2005. This directive will expand on EPA's actions to date to protect human health and the environment and accommodate the productive use of Superfund sites during and following their assessment and cleanup. The SRI website details lessons learned from site reuse stories and also contains studies that demonstrate increased property values in areas surrounding redeveloped Superfund sites. A new initiative, currently dubbed the Tear Down the Wall Initiative, is being pushed forward to encourage removing fences at sites that might otherwise be ushered into reuse.

California's Environmental Oversight Agreement

Caren Trgovcich, Division Chief, Statewide Cleanup Operations, Site Mitigation and Brownfields Reuse Program, Department of Toxic Substances Control, California EPA, noted that Brownfields are real property, the expansion, redevelopment, or reuse of which might be complicated by the presence, or the potential presence of a contaminant, pollutant, or hazardous substance. Incentives to bring brownfields back into productive use abound, ranging from local economic incentives to those concerned with the protection of human health and the environment. The Environmental Oversight Agreement's overall purpose is to facilitate the brownfields redevelopment process and to establish a partnership between state and environmental regulators and local governments in cleaning up contaminated sites. This is accomplished by, among other things, facilitating Polanco Act cleanups for redevelopment agencies.

Tribal Session

Nevada Tribal State Liaison Program

Tansey K. Smith, Tribal State Liaison, Inter-Tribal Council of Nevada, Nevada Division of Environmental Protection, discussed the Nevada Tribal State Liaison Program, which was developed to enhance communication between the Tribes and the Nevada Division of Environmental Protection (NDEP) and made possible by a grant proposal submitted by

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the Inter-Tribal Council of Nevada (ITCN). The Nevada Tribal State Liaison Program is a project where Tribes and the State are working together on common issues that impact not only Tribal but State lands. The Tribes and NDEP have one common goal in mind: to protect the environment for generations to come.

National Historic Preservation Act and Site Investigations

Denise Baker, Site Assessment Manager, Environmental Cleanup Office, Site Assessment and Cleanup Unit #2, U.S. EPA Region 10, presented the story of the Hood Canal Bridge Graving Dock, which shows how failure to take Tribal concerns into account in the pre-planning stages of a federal undertaking can result not only in anger but also in a much greater project cost than anticipated. The National Historic Preservation Act requires federal agencies to take into account the effect of their undertakings on properties included in, or eligible for, inclusion on the National Register of Historic Places. The goal of the NHPA process is to accommodate historic preservation concerns with the needs of federal undertakings through consultation among the agency official and other parties with an interest in the effects of the undertaking on historic properties, commencing at an early stage of project planning.

Hazardous Waste Site Inventory and Risk Assessment Model

Syed Rizvi, Grants Specialist, Tribal Association for Solid Waste and Emergency Response (TASWER), noted that the purpose of the three-year TASWER project is to assess the overall situation of hazardous waste sites on Tribal Lands, and describe the risks to Tribes that the sites pose. Previously established federal databases do not address Tribal concerns specifically; conversely, the TASWER project steps in to draw together and compile an effective hazardous waste site inventory database and site maps, as well as a risk assessment model that Tribes can apply to their own situations.

Incorporating Tribal Lifeways into the Superfund HRS Process

Bob Myers, Office of Remediation and Technology Innovation, State, Tribal and Site Assessment Branch, U.S. EPA, noted that a particular concern expressed by Tribes is that contaminated sites affecting Tribes rarely score 28.5 on the Hazard Ranking System (HRS), and that the HRS may not fairly account for tribal cultural exposure factors and target populations. EPA/Tribes are taking steps to resolve this complex issue. The current recommendation is to review/amend current Superfund guidance for the assessment and HRS processes to better consider specific tribal lifestyles/exposures. OSWER supports this recommendation, to be approached in five steps, which will encourage Tribal communication and cooperation.

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Innovative Approaches

Site Hazard Assessments by Local Government

Michael J. Spencer, Environmental Specialist, Site Hazard Assessments/Washington Ranking Method, Toxics Cleanup Program, Washington Department of Ecology, noted that the Hazardous Substance Tax provides funding for the discovery, assessment, and cleanup of toxic waste sites in the state of Washington under the Model Toxics Control Act (MTCA). The funding is distributed by the Washington Department of Ecology (Ecology) to various state and local government environmental and health agencies. Seventeen county health departments/districts are currently funded through the Local Toxics Control Account to conduct initial investigations and site hazard assessments (SHAs). To date, 910 SHAs have been completed, resulting in the addition of 520 ranked sites to Ecology's Hazardous Sites List.

Evaluation of Observed Vapor Attenuation in Upstate New York

Bill Wertz, Chief, Engineering Geology Section, Division of Solid & Hazardous Materials, New York State Department of Environmental Conservation, evaluated vapor attenuation (the ratio of sub-slab soil contaminant concentration to indoor air concentration) at the Endicott site, located in upstate New York, using 234 sets of indoor, outdoor, and sub-slab air samples.

Vapor Intrusion Characterization

Ray Cody, RCRA Corrective Action, U.S. EPA Region 1, presented on the vapor intrusion (VI) pathway and why it has only recently emerged to the extent and degree that it has. VI is a unique and complex environmental problem, and will, more likely than not, require multiple tools and convergent lines of reasoning. VI requires a weight of evidence approach highly dependent upon the site conceptual model.

Innovative Approaches – Lead-based Paint and Pesticide Investigations at School Sites

Sharon Fair, Branch Chief, School Property Evaluation & Cleanup Division, Site Mitigation and Brownfields Reuse Program, Department of Toxic Substances Control, California EPA, noted that the California Department of Toxic Substances Control's (DTSC) Schools Division mandates the oversight of environmental assessments at proposed new or expanding school properties where acquisition and/or construction will be financed by state bonds. DTSC's streamlined environmental assessment process for schools involves identifying whether the presence of lead poses a threat to human health or the environment, as illustrated by two guidance documents for sampling of lead-based paint in soils and for agricultural fields to be used as school sites. Developed by the Schools Division to improve the efficiency and effectiveness of investigations and

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cleanups at school properties, these guidance documents establish protocols for selection of sampling locations, depths, frequency, analytical methods, and risk assessment.

Use of XRF for HRS

Tanya M. Amme, Environmental Scientist, Environmental Programs Group, Computer Sciences Corporation-Federal Section, noted that field-portable X-ray fluorescence (XRF) technology has been a cost-effective tool for estimating the metals composition of environmental samples for over thirty years. The use of field-portable XRF has evolved over the years from its original use of qualitatively measuring lead in paint and in house dust to its current use as a screening tool for site assessment, and most recently to its incorporation into Hazard Ranking System (HRS) documentation as supporting information for NPL listings. From a lead paint detector to its use in regulatory documentation, each additional level of intended use has required an increase in both the development of more complex standard operating procedures and the level of QA/QC requirements. To date, analytical results from field-portable XRF equipment has not yet taken the next evolutionary step to stand-alone documentation of observed releases for NPL listings. Will XRF ever be more than a screening tool? Understanding the variables affecting the accuracy of the analytical results, strict adherence to standard operating procedures, and improved technology may soon make answering that question easier; however, only time will tell what the future holds for field-portable XRF technology.

Emerging Issues

Emerging Sites - Crozet Subdivisions Site

Linda C. Baxter, HRS/NPL Coordinator & Site Assessment Manager, Brownfields & Site Assessment Section, U.S. EPA Region 3, presented on the Crozet Subdivisions Site, a small town with residential subdivisions once used as peach and apple orchards. As a result of historical pesticide use at the former orchards, some properties within Crozet have been identified as having lead and arsenic contamination in residential soils. By the use of field screening and laboratory analysis, EPA was able to effectively address the residential concerns in a timely fashion, while providing reliable data that could be used to make defensible decisions regarding future CERCLA activities at the Site.

Emerging Issues – School Sites with Naturally Occurring Asbestos

Sharon Fair, Branch Chief, School Property Evaluation & Cleanup Division, Site Mitigation and Brownfields Reuse Program Department of Toxic Substances Control, California EPA, discussed the role of California Department of Toxic Substances Control's (DTSC) Schools Division in the mandatory oversight of environmental assessments at proposed new or expanding school properties where acquisition and/or construction will be financed by state bonds. For those sites located near geologic formations indicating possible presence of naturally occurring asbestos, DTSC has

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developed an "Interim Guidance – Naturally Occurring Asbestos at School Sites" which establishes a site assessment and mitigation protocol, key components of which include: risk management, air and dust monitoring, and applicable remedies.

Emerging Issues – Asbestos in California

Fran Collier, Associate Toxicologist, Human and Ecological Risk Division, Department of Toxic Substances Control, California EPA, noted that asbestos in California continues to be an emerging issue. When disturbed, naturally occurring asbestos can be released to the air and inhaled. Asbestos is a known human carcinogen. Using case studies, Ms. Collier discussed some of the emerging issues of assessing potential sources, exposure and risk assessment, regulatory integration, communication, and funding.

EPA Views on Munitions Response Actions

Doug Maddox, Environmental Engineer, Federal Facilities Restoration and Reuse Office, U.S. EPA, noted that munitions cleanup has been changing rapidly over the past several years. The EPA Federal Facilities Restoration and Reuse Office (FFRRO) has developed policies, guidance documents, training programs, and a handbook for munitions response actions. FFRRO has ongoing efforts to develop new policy and technical guidance, improve existing EPA documents, and work closely with the Department of Defense on initiatives concerning munitions cleanup. All of these efforts include coordination and consultation with other federal agencies, States, Tribes, and interested stakeholders. This presentation provided an overview of the challenges of munitions response actions, updated the status of the various EPA efforts regarding munitions response actions, and identified key issues for consideration and resolution.

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Town Meeting

Topics included how the listing priority panel conducts the tiering process, how the concept of ecosystem health fits into EPA site assessment, Brownfields investigation challenges including why municipalities cannot get access to Brownfields, and the particular obstacles Regions face when gathering information in light of homeland security.

Question: Can you explain how the listing priority panel conducts the review/tiering process?

Answer (STSIB staff): There is a management process in place that considers a number of factors. The tiering system ranks sites based on human health risks (actual or potential) and environmental or ecological effects. Sites that present imminent human health risks (tier A) are considered a higher priority for listing than sites that present ecological or environmental risks. Despite those general tendencies, there is flexibility in the system to recommend which sites to list. Not all sites that score are listed. Any official change to the listing process would require public comment, etc. NACEPT has advised a listing process review. The panel conducts prioritization meetings. These meetings just decide what tier a site falls in. The panel doesn't decide which sites are listed. The Assistant Administrator decides how the Agency moves forward listing sites. The panel does provide input, but it's just advisory. Because of tiering, some think that sites are being evaluated much more comprehensively.

Question: How much value or consideration does EPA give to the statute of limitations when listing sites (trustee claims)?

Answer: The statute is unclear. It is a factor that management will need to consider.

Question: Ecosystem health is a relatively new idea. How does this concept fit into EPA site assessment?

Answer: EPA really hasn't done much in this direction. What about the Regions? [no response from the Regions]

Question: What percent of CERCLA site assessment is being conducted by the states?

Answer (Randy Hippen): About 50%

Question: Is there current, recent information available on the costs of site assessment (PA, SI, pre-screening, etc.)?

Answer (Randy Hippen): Every three years, OMB does an information collection request (ICR) that contains cost tables. It looks at average cost to states, through START

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contractors. ICR was last done in 2001. Those are publicly available at OMB's website. Google search "HRS ICR OMB." In a nutshell, pre-screenings cost \$5,000-\$10,000, PAs cost \$10,000, SIs cost \$30,000, expanded SIs cost \$60,000-\$80,000 and HRS Packages cost \$30,000-\$35,000. The state produced PA/SIs usually cost less than HQ ones.

Question: What is the current ratio of state versus contractor pre-remedial dollars? Will this change based on funding cuts?

Answer (Randy Hippen): State and contractor ratios generally average out to be pretty much the same. The press for construction completion has caused the Regions to look at their allocation of resources. Also, more sites have moved into construction, which changes available funds. Regions make allocation decisions once they receive their money. Any comments from Regions?

Region 4: (Mike Norman) split for SA is 2/3 state, 1/3 contractor

Region 10 (Sylvia Kawabata): Resources have been on the decline, more goes to contractors than states in this region. This may be attributable to states getting their own money from taxing.

Region 3 (Linda Baxter): State gets less than contractors per unit.

Region 1 (Nancy Smith): Contractors do most SA work. States were cut 10% this year, but START contractors didn't get any cuts.

Region 8: (Debra Ehlert) States get more than START contractors.

Question: What is EPA's position on filtering versus non-filtering of groundwater samples?

Answer (B.J. Chantry and Bob Myers): This question comes up every year, and the answer is always vague because there is no specific guidance. Basically you need to be able to provide a rational explanation for your decision to filter or not, be consistent in your decisions, and compare similar situations. You need to be able to explain why X contaminant in the water is due to a release and not particulates from a well.

Question: Regarding the eligible site response determination, are sites eligible for the federal response bar "if and until" excluded?

Answer (Sven Kaiser): Exclusion requires a determination. Most sites that go through a state program like Brownfields are eligible for the federal enforcement bar, in which case federal powers are barred from forcing further cleanup of these sites. Some sites, such as those of NPL caliber, are not eligible for this enforcement bar. NPL sites are not eligible statutorily. EPA can exclude sites from being eligible because they are interested. The enforcement bar means that EPA can't use 106 or 107 authority but states can lift the bar.

Question: How many state SA programs are conducted in Brownfields investigations?

Answer: A few.

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Question: What is the greatest Brownfields investigation challenge?

Answer: 1. Getting access to sites. 2. Trust: people don't want to work with Brownfields because they are afraid we'll make the site a Superfund site; lack of cooperation due to the stigma attached to such sites remains an obstacle. The goal is for this to be a voluntary program. For instance, although the state has the power to gain access to certain sites, Ohio chooses not to exercise this power.

Question: Why can't municipalities get access to Brownfields properties?

Answer: The goal is for this to be a voluntary program. For instance, although the state has the power to gain access to certain sites, some such as Ohio choose not to exercise this power.

Question: Are states and Regions having problems getting the information they need to conduct site assessments due to homeland security?

Answer: In California, contractors are having trouble getting information from water purveyors, so the state is putting out blanket 104 letters. The purveyor uses homeland security as a reason for not responding to many requests for information, and are considering all well information restricted for the same reason. California law prohibits giving out that information to anyone other than government agencies. Region 1 is having the same problem in Vermont and Connecticut. In Rhode Island, sometimes water information can't be gotten at all. In Washington State there was a database of site information. After 9/11 it disappeared. In Michigan, public well information has been taken off public websites, but government access GIS data is still available.

Question: Are there perchlorate issues in other states besides California?

Answer: Yes. Ten states, including Texas where it is naturally occurring, have established a risk-based level for perchlorate. A federal standard is on the radar screen, but could take years because of all the people who would have to weigh in. A Maximum Contaminant Level (MCL) will only get established after the Department of Defense and manufacturers have their say. There was recently an NPR special on perchlorate. Check out the NPR website (Diane Rehms).

Question: What system is used to score PAs?

Answer (Frank Avvisato): Most states use Quickscore or Superscreen now. Some states still use the DOS based programs Prescore and PAScore because they are easier and more familiar, but most have switched. There is a new version coming out that will look more like Prescore.

Question: Brownfields law requires an inventory process. What are the challenges with that?

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Answer: It's difficult to determine when a site is underutilized. Underutilization doesn't have a very good definition. An abandoned site is easy to identify. Goals aren't clear as to what an inventory should be.

Question: What is the rate of listing recommended by NACEPT?

Answer: NACEPT found that difficult to answer. We aren't listing as much as we have in the past. Yolanda Singer (STSIB) asks regularly what sites Regions/States have that should be considered for tiering. Headquarters is managing those numbers. When there's an issue, EPA will move up a site without waiting for an update. The recommendation is that EPA management should look at this issue. Headquarters anticipates a fall update this year.

Question: Are there any site assessment programs that look at vapor intrusion?

Answer: No investigation in Colorado. Indiana is doing indoor air sampling. In Virginia the site assessment program isn't started up, but they do vapor intrusion sampling in the voluntary program.

Question: Are states noticing an abundance of former dry cleaning sites with no ability to collect money?

Answer: Florida has a tax-funded dry cleaning program. If drinking water is already contaminated, the site won't score as high as if the water has a high potential of being contaminated. Bottled water is provided to any site that has contaminated public water. Rhode Island doesn't allow water to be used for any purpose if it has ten times the acceptable level of contamination for drinking water. Michigan has determined an unacceptable level of contamination for human contact with water.

Closing Remarks

Joan Fisk, Acting Associate Chief, U.S. EPA/OSWER/OSRTI/STSIB

Site Assessment is alive and well!

Several action items are apparent from the Town Meeting discussions:

- More thought needs to be given to the NPL tiering process. Some inequities are apparent.
- Guidance on filtering versus not-filtering for water contaminated with metals is wanted.
- There is strong feeling about the need for developing a perchlorate standard.
- Vapor intrusion - fact sheet related to considerations during site assessment is almost final - much interest in this fact sheet.
- Rate of NPL listing needs to be addressed.