

## APPENDIX E

### Comments about the Paper, Panel, and Information Sessions

This section of the report includes the abstract as originally submitted for each paper, panel, and information session, provides a moderator summary if available, and summarizes information collected from the evaluation forms that were distributed to students during each session they attended. The bar graph illustrates the responses of students to a series of questions about the appropriateness and relevance of material to their job responsibilities, as well as the effectiveness of the instructional materials.

Students were asked to respond to a series of questions by selecting from the following choices:

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

In addition, students were asked to submit written comments about various elements of the session, including: content; relevance and appropriateness of case studies; and instructional methods. The following pages present the information collected from the evaluation forms submitted for each session.

This attachment also provides pie charts that illustrate the percentages of students for each session by job title. EPA RPMs represented at least 50 percent of the students for almost every session.

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## Case Studies

Monday, May 21, 3:00 p.m. to 4:30 p.m.

Moderator: Yvonne Fong, Region 9  
Presenters: Pauletta France-Isetts, Region 7  
Gary Riley, Region 9  
Eric Yunker, Region 9

### **In Situ Oxidation of 1,4-Dioxane with Ozone and Hydrogen Peroxide**

Presenter: Eric Yunker, Region 9

A pilot-scale field evaluation was carried out to assess the effectiveness of an innovative in situ oxidation process (using ozone with and without hydrogen peroxide) for remediation of 1,4-dioxane and chlorinated VOCs. These contaminants were detected in ground water at the Cooper Drum Company Superfund site in South Gate, Los Angeles County, California. The ozone/hydrogen peroxide generation and delivery systems were installed in mid-July 2005 and the system operated continuously until early May 2006 for a period of 10.5 months. Ozone alone was injected into the subsurface in the initial operation phase. Injection of hydrogen peroxide was initiated after 5 months to evaluate the effectiveness of combined ozone/hydrogen peroxide injection in remediating the recalcitrant compounds present in the site ground water. Some conclusions of the field pilot test are as follows:

- Ozone injection alone can significantly reduce the concentrations of the site chemicals of concern (COC) including: trichloroethylene (TCE); cis-1,2-dichloroethylene; 1,1-dichloroethane; and 1,4-dioxane.
- The effect of hydrogen peroxide on destruction of COCs is not clear. However, ex situ testing of the site ground water does indicate that it is likely that injection of a stoichiometric concentration (0.7 to 1 mole: mole) or less of hydrogen peroxide to ozone is required to achieve optimal results and increase oxidation kinetics.
- The presence of high levels of secondary constituents in the ground water (such as iron, bicarbonates, and organic matter) may have enhanced the effectiveness of oxidation by ozone.

### **Response to Contaminated Buildings in Proposed Redevelopment Areas**

Presenter: Pauletta France-Isetts, Region 7

This paper discussed non-typical responses to contamination, the importance of EPA involvement and presence during response actions, and the benefits of cleanup to the community. The PCB Treatment, Inc. (PTI), sites were located in highly visible areas of Kansas City, Missouri, and Kansas City, Kansas. The PTI sites operated, pursuant to a Toxic Substances Control Act (TSCA) permit, during the mid-1980s to treat, store, and dispose of PCBs. Two multi-story buildings and the surrounding soils were contaminated with PCBs at concentrations above health risk-based levels. The Kansas City, Missouri, building was located in the Freighthouse District, an area undergoing intense redevelopment. Residential lofts were located east and west of the PTI building. The Kansas City, Kansas, building was located between two buildings in the West Bottoms District. The PTI building shared a wall with the building to the south, and fewer than 6 inches separated the PTI building and the structure to the north. Former PTI customers were deemed potentially responsible. More than 1,500 information request letters were issued, and an allocation formula was developed. More than 99 percent of all responsible parties settled; de minimis parties “cashed-out” with EPA or the Steering Committee. Action memoranda identified controlled dismantlement of the buildings and soil excavation as the response action. The cost for both

buildings was estimated at \$34 million. Additional studies to quantify TSCA and non-TSCA wastes and segregation of the building debris for disposal were performed. The response actions were completed on or ahead of schedule, under budget, and with no loss of time due to accidents. Both properties are now under contract for purchase, and will be redeveloped in the near future.

### **Get SMARTe: Electronic Tools for Revitalization Planning**

Presenter: Gary Riley, Region 9

Sustainable Management Approaches and Revitalization Tools electronic (SMARTe) is an online resource to help overcome obstacles to site revitalization. EPA developed this tool after evaluating model sites across the country and around the world as part of the U.S. – German Bilateral Working Group.

SMARTe (<http://www.smarte.org>) consists of:

- Best Practices and Education: Information, Resources, Case Studies, Links, Checklists, Identification of Key Questions
- Analysis Tools: Technical and Non-Technical
- Search Engine: Find Specific Information

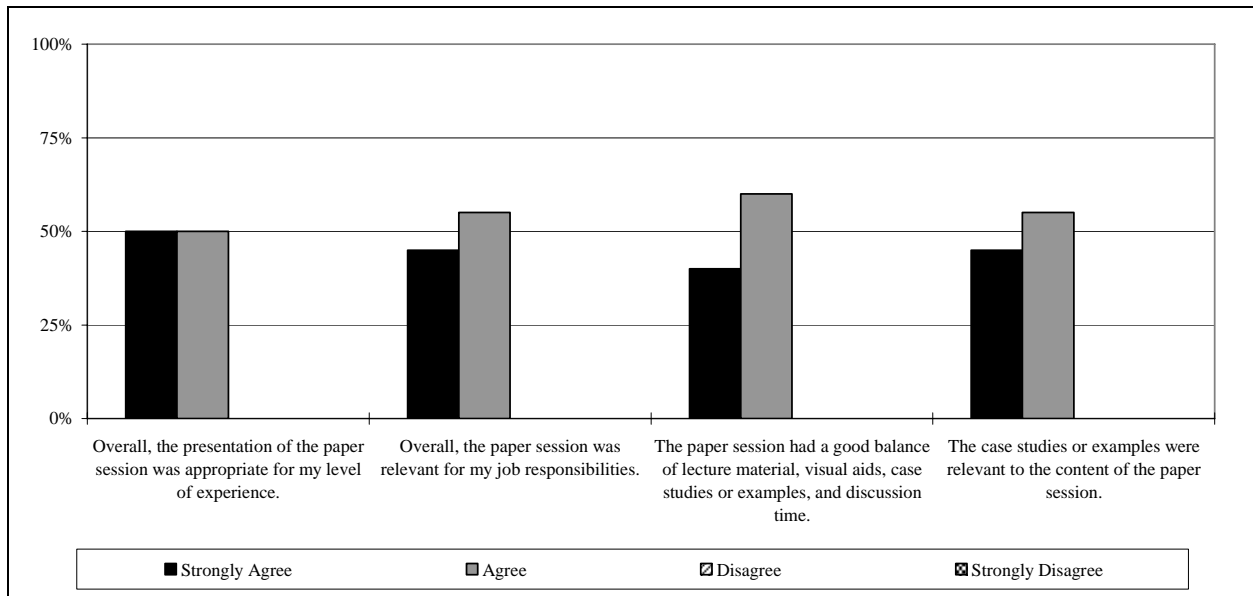
This information can benefit a number of groups including: community members; local governments; developers; and revitalization process managers. The presentation emphasized the portions of SMARTe that may be useful to RPMs and the stakeholders RPMs come into contact with while facilitating land reuse. The presentation also provided an overview of the "beta test" sites where SMARTe is being applied to a real-world EPA removal action, and showed the new features coming in the fall 2007 release of SMARTe.

#### **Participation and Average Grade**

<b>No. of Preregistrants</b>	<b>No. of Students Who Signed Session Roster</b>	<b>Number of Evaluation Forms Submitted</b>	<b>Average Grade</b>
42	33	20	4*

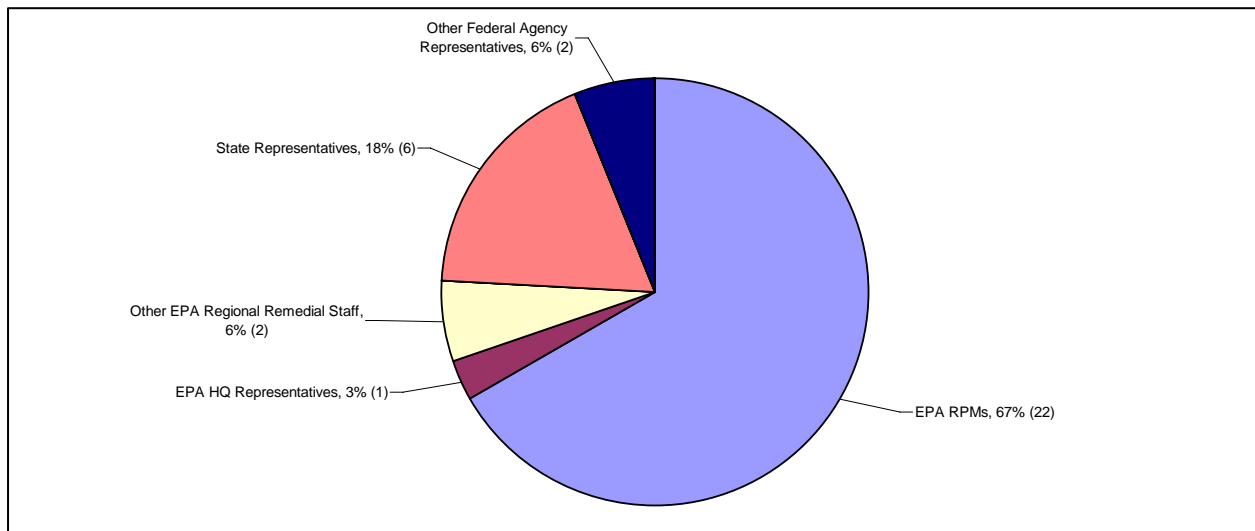
\* The grade displayed is the average of the grades identified on the evaluation forms based on a 5-point scale. The average is calculated by rounding the raw average to the nearest integer (for example, 3.6 rounds to 4).

### Summary of Evaluation Results for the Case Studies Paper Session



The pie chart below illustrates the percentages of students for the paper session by job title. EPA RPMs represented 67 percent of the students.

### Students by Job Title for the Case Studies Paper Session



Summarized below are the written comments provided on the evaluation forms. Similar observations have been combined and paraphrased. Comments submitted by a single respondent are recorded below.

#### Comments on course content

Shorten

- Background on SMARTe.

Lengthen

- More case studies.

Omit

- o Actual Stella, Missouri case study.
- o SMARTe was not very relevant.

**Comments on instructional methods and materials**

- Would have like more handouts on case studies.
- All presenters had excellent slides and very good presentation skills.
- Cannot have enough case studies for RPMs. Would even go to a night session if time is a factor.

**Comments on recommending course to colleagues**

- If relevant to work load.
- Case study sessions should always be included at NARPM.

**Comments on relevance to job responsibilities and experience level**

- All good presentations.

**Comments regarding the moderator**

- Good job! Generally, presenters on time. Moderator did a good job.
- Moderator did not keep session moving. It went over.

**Summary of the Session**

Yvonne Fong submitted the summary for this session, which is recorded below.

Overall, the session went very well and time flowed smoothly. The attendees were greatly impressed by the work presented by Pauletta France-Isetts, Region 7, because everyone likes to hear about the success stories. I overheard one student remark that this was the best session he had attended. Prior to reading the evaluations, I think that this session was well received.

During the *In Situ Oxidation of 1,4-Dioxane with Ozone and Hydrogen Peroxide* paper, Eric Yunker, Region 9, surveyed the students to get an impression of how many were dealing with 1,4-dioxane at their sites. Roughly half of the students indicated they were. Eric highlighted that the pilot-scale field evaluation was so effective that they are recommending the in situ oxidation process for full-scale implementation. The "drum processing area" and the "hard wash areas" were the main areas of the site where solvent use impacted the ground water. Two other co-mingling plumes from the north and the southeast were considerations in selection of the treatment option.

The selected treatment option needed to avoid pulling contamination from these other plumes and sites into the treatment area. Based on ground water data, naturally occurring reduction was taking place. The presence of 1,4-dioxane was not discovered until two years post-ROD. 1,4-Dioxane is an emerging chemical of concern and, as yet, there is no established Maximum Contaminant Level (MCL). 1,4-Dioxane is a stable chemical. Oxidation yields a hydroxyl radical. Ex-situ treatment was previously used. Ferrous iron and organics present on-site enhanced the formation of the hydroxyl radical.

Audience Question 1: How long before clean-up?

Response: One to two years

Audience Question 2: How much did the pilot study cost?

Response: \$250,000 for six months

During the *Response to Contaminated Buildings in Proposed Redevelopment Areas* paper, Pauletta France-Isetts, Region 7, explained that PTI was a high-profile site, subject to Congressional inquiries. Twenty-one Federal agencies comprised the greatest share of PRPs and 33 percent of the total liability. Region 6 was one of these 21 federal agencies but agreed to conduct the response without charging oversight costs. A special account from de minimis settlements funded 24 percent of the response action costs. In 1995, there were no redevelopment uses in the area, but by 2005 – around the beginning of the removal action – there was a lot of reuse in the area, including in buildings immediately adjacent to PTI. The building was also on the National Registry of Historic Sites. The selected remedy was controlled demolition of the building. A community information center was set up and manned by Ms. France-Isetts Monday through Friday. TSCA wastes were segregated from non-TSCA wastes to severely reduce disposal costs, which were estimated to be \$17 million. Pigeon wastes and toxoplasmosis were a consideration during the demolition. A second building was also demolished. The concrete floors were milled down in one-inch deep increments to further minimize wastes being sent to TSCA landfills. Water was used for dust suppression.

Audience Question 1: How long did demolition take?

Response: Five months

Audience Question 2: Was there any sampling or collection of dust suppression water?

Response: No. Mists were fine and almost entirely absorbed by the clay and brick buildings.

Audience Question 3: What is the estimated number of samples taken to demarcate TSCA wastes?

Response: Unknown

Audience Question 4: Is there any planned residential reuse?

Response: Yes, condominiums

Audience Question 5: Was there any mitigation on the wall that was common to uncontaminated buildings?

Response: The common walls were sandblasted to remove PCB contaminated paint.

Audience Question 6: Was there any post-demolition sampling of brick dust?

Response: No

Audience Question 7: Was there any difficulty in securing landfills?

Response: No. Ms. France-Isetts worked with the City Council to find them.

Audience Question 8: What type of pre-demolition sampling was used?

Response: Surface wipes and concrete core samples.

During the *Get SMARTe: Electronic Tools for Revitalization Planning* paper, Gary Riley, Region 9, indicated how the Web sites help identify common obstacles to revitalization. The target audience of SMARTe is intended to be large/broad. Gary demonstrated the SMARTe Web site and highlighted areas that could help RPMs and communities make revitalization decisions.

Audience Question 1: Is there a link to the SMARTe website from the EPA Web site?

No Response

Audience Question 2: Who provides the funding for the community?

Response: Superfund Technical Assistance Grants and community or Brownfields moneys

Audience Question 3: Were there any PRP sites included in the model sites?

Response: No

Audience Question 4: Have any of the model sites moved beyond the proposal stage?

Response: All the model sites are in active reuse. Other sites are in year one.

## Mining

Monday, May 21, 3:00 p.m. to 4:30 p.m.

Moderator: John Lucey, Region 9  
Presenters: Anne Dailey, Region 10  
Mark Purcell, Region 6  
Ken Wangerud, Region 8

### **Monitoring Hydrodynamic and Geochemical Processes in a Valley-Fill ARD Waste-Rock Repository**

Presenter: Ken Wangerud, Region 8

Acid mine site remediation is a significant problem, both in the U.S and globally. Due to the volume of acid producing rock, the only practical solution is minimizing acid production by reducing or eliminating water flow through the rock. Typically, this is achieved through emplacement of a cap over the waste rock.

The Ruby Gulch repository at the Gilt Edge Mine NPL site is such a capped waste rock repository. Eliminating discharge from valley-fill capped waste-rock repositories is difficult and multiple factors can cause continuing oxidation and acid rock drainage (ARD) discharge. Consequently, early in the cap-cover design, EPA and the Bureau of Reclamation design-build team recognized the need for a long-term monitoring system which would provide information on the repository performance and behavior. Specifically, the following objectives were defined for a monitoring system: 1) provide information on the integrity and performance of the newly constructed surface cover and diversion system; 2) continuously assess the waste's hydrological and geochemical behavior, such that rational decisions can be made for the operation of this cover and liner system; 3) provide easy and timely information access on system performance to a variety of stakeholders; and 4) generate information and insights which can be used to enhance future cover and monitoring discussions between EPA, the Bureau of Reclamation and Department of Energy (DOE) Idaho National Laboratory (INL).

A long-term monitoring system was designed and integrated into the multi-layered geomembrane rock-soil cap-cover over the 65-acre, 450-foot high, sulfide waste-rock dump to provide information to meet these objectives. The system consists of tensiometers, lysimeters and thermocouples in four wells, a 523-electrode resistivity system installed below the cap and in the wells, a weather station, and a precision outflow-meter at the toe-discharge of the repository. Continuous data from this system as well as auxiliary manually collected samples is parsed into a web accessible central server. Automated and on demand data processing allows for 2-D, 3-D, and 4-D resistivity tomography and user controllable data mining. The philosophy underlying this system is that it should provide both for effective automated and autonomous data collection and for a cost effective way for multiple stakeholders to use this data.

*Paper was written by Ken Wangerud (RPM in the Superfund Remedial Program at Region 8, Denver, Colorado 80202); Roelof Versteeg (Senior Advisory Scientist at the INL, Idaho Falls, Idaho 83415); Gail Heath (Principal Scientist at the INL, Idaho Falls, Idaho 83415); Rich Markiewicz (scientist at the Bureau of Reclamation, Denver, Colorado); and Alex Richardson (scientist at the INL, Idaho Falls, Idaho, 83415).*

### **Origin of Ground Water Contamination at the Molycorp Mine Site**

Presenter: Mark Purcell, Region 6

This paper focused on the origin of ground water contamination at the Molycorp molybdenum mine, located along the Red River Valley near Questa in Taos County, New Mexico. Molycorp is conducting a CERCLA investigation at its mine under a consent order with EPA. Approximately 328 million tons of acid-generating waste rock was placed in piles at the site from historical open-pit mining. Many of the tributary drainages within the valley, including some at the mine site, contain areas of hydrothermally altered rock that resulted in steep, highly erosive, sparsely vegetated scars (hydrothermal scars). Alluvial ground water at and upgradient of the mine site contains elevated concentrations of metals and acidic pH values. Molycorp believes the source of the ground water contamination is primarily the naturally occurring hydrothermal scars. Molycorp funded the U.S. Geological Survey (USGS) to conduct a baseline study at a nearby analog drainage to assess pre-mining water quality. The USGS findings confirmed that scars impair ground water quality. The EPA-directed CERCLA investigation also demonstrated that acid rock drainage within the waste rock piles contaminated ground water. The naturally occurring background levels of metals in ground water exceed state ground water standards and will affect the cleanup levels EPA ultimately selects for the site.

### **Use of a Conservation Easement to Address Mine Waste Impacts**

Presenter: Anne Dailey, Region 10

This paper discussed the use of a conservation easement used to address mine waste impacts, specifically in the Coeur d'Alene Basin. Migrating waterfowl winging their way across Idaho's Panhandle will have a safe new place to rest and feed, thanks to a newly forged Conservation Easement Agreement in the Coeur d'Alene Basin. The agreement was developed by EPA, the U.S. Fish and Wildlife Service (FWS), Ducks Unlimited, Inc., and a willing private property owner. This easement agreement uses an innovative approach and is an integral part of the comprehensive mine waste cleanup under way in the basin. In an unusual partnership, federal, state, tribal, and private parties have come together with a non-profit wetland conservation organization to launch a cost-effective project to reduce waterfowl mortality in the Lower Coeur d'Alene Basin.

More than a century of mining and ore processing upstream in the historic Silver Valley have contaminated the Coeur d'Alene River and its floodplain with sediment that contains high concentrations of lead and other metals. Concentrations of lead in more than 18,000 acres of wetland are above levels toxic to waterfowl. As a result, waterfowl frequently ingest lead contaminated sediment and suffer serious toxic effects or die. The problem has become so pervasive that an annual "die-off" of waterfowl has occurred in the area for decades. This project is an important first step in addressing contaminated wildlife feeding areas within the Coeur d'Alene Basin. In its recent final report on the Bunker Hill Superfund Site, the National Research Council (NRC) encouraged EPA's efforts to secure agricultural lands, stating that converting them to high-quality feeding grounds and reestablishing wetland in these areas is a laudable effort (NRC 2005).

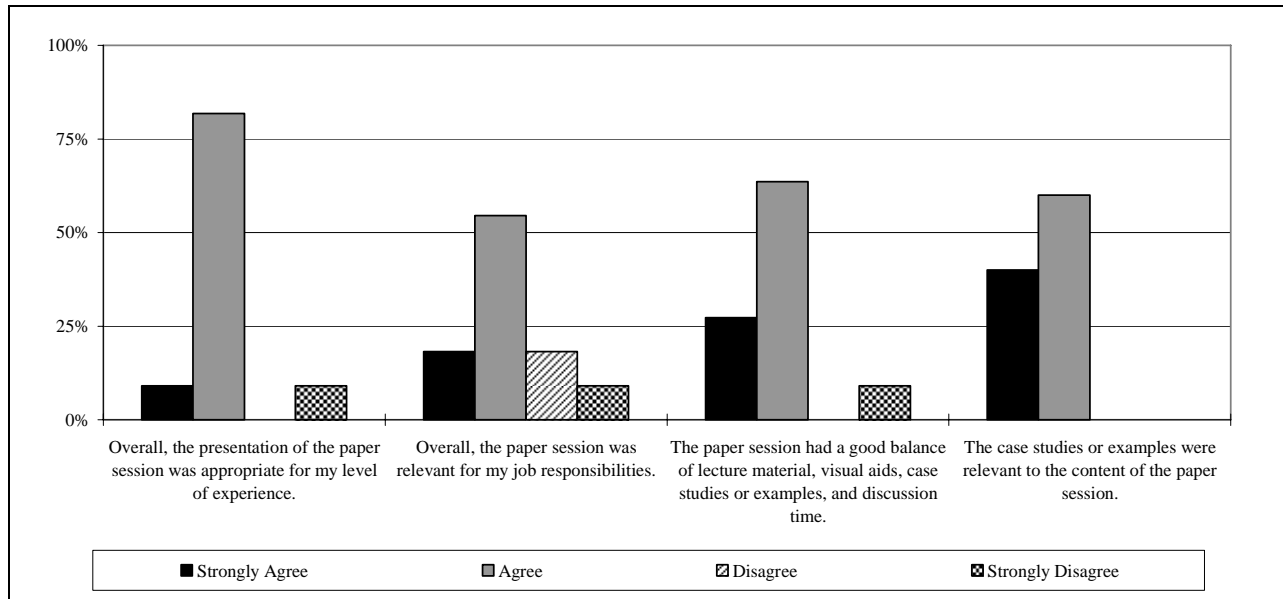
The agreement was established within the framework of the EPA's 2002 Bunker Hill ROD, which charts the course for mine waste cleanup in the Coeur d'Alene Basin over the next 30 years. EPA, FWS, and USACE will conduct a Superfund cleanup action on the easement area over the coming months, converting the existing agricultural land to clean wetland waterfowl feeding habitat. FWS will implement a wetland restoration project at this site in the coming years. By returning the area to a more natural state, the partnership predicts it will become an attractive feeding alternative and provide safer habitat for both resident and migratory waterfowl.

**Participation and Average Grade**

No. of Preregistrants	No. of Students Who Signed Session Roster	Number of Evaluation Forms Submitted	Average Grade
30	25	11	4*

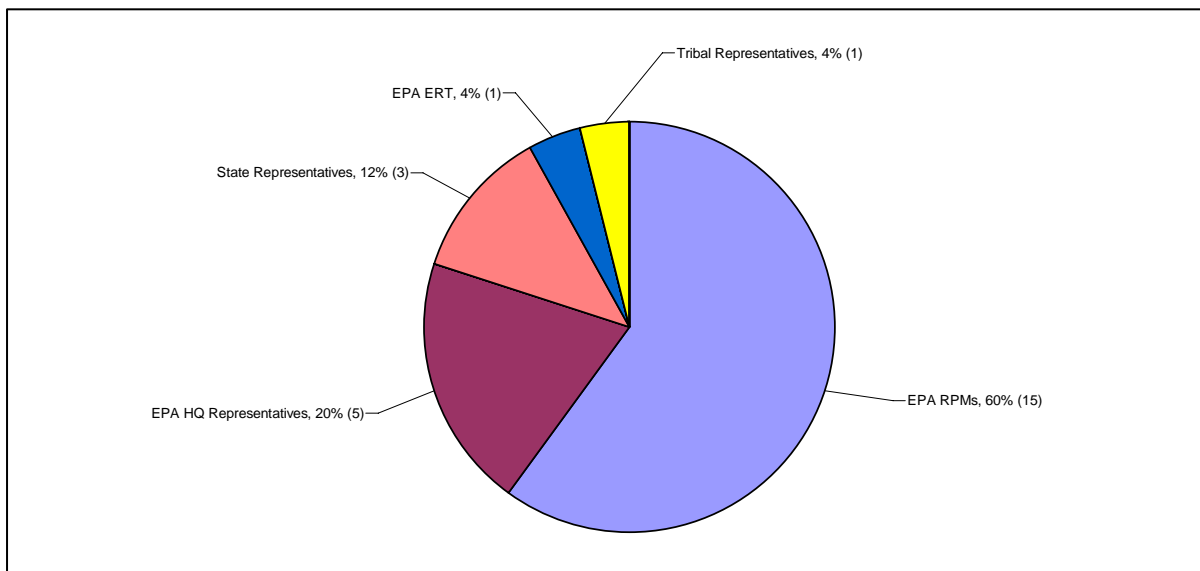
\* The grade displayed is the average of the grades identified on the evaluation forms based on a 5-point scale. The average is calculated by rounding the raw average to the nearest integer (for example, 3.6 rounds to 4).

**Summary of Evaluation Results for the Mining Paper Session**



The pie chart below illustrates the percentages of students for the paper session by job title. EPA RPMs represented 60 percent of the students.

**Students by Job Title for the Mining Paper Session**



Summarized below are the written comments provided on the evaluation forms. Similar observations have been combined and paraphrased. Comments submitted by a single respondent are recorded below.

**Comments on instructional methods and materials**

- All good presenters.
- Loved the presentations - more on this would be worthwhile.

**Comments on course name and abstract expectations**

- It was all about mine site remediation. Thanks for being true to the topic.

**Comments on recommending course to colleagues**

- On topic and informative.
- Mining will remain a significant problem for the U.S. and EPA can contribute by coordinating all its internal efforts and provide information from OSC archives in addition to RPM projects.

**Summary of the Session**

John Lucey submitted the summary for this session, which is recorded below.

This session was well attended, though it could have been held in a bigger room. There was a good amount of interest, interaction, and questions from the audience. Each paper presented was unique with different aspects of managing mining sites. The first paper presented, *Use of an Easement to Address Mine Waste Impacts*, discussed an innovative way to create new clean habitat for waterfowl in a contaminated river valley. The second paper presented, *Origin of Ground Water Contamination at the Molycorp Mine Site*, was an interpretation of field data from a molybdenum mine and described how to identify environmental concerns. The third paper presented, *Monitoring Hydrodynamic and Geothermal Processes in a Valley-Fill ARD Waste Rock Repository*, was an interpretation of data collected from a landfill cap covering tailing piles at a mine site.

Mine sites are often challenging to clean up and restore for future land use. They will continue to be an emerging issue for EPA because there are many new sites being listed and worked on by EPA. Future NARPM events should include these types of mining sessions. It is helpful for RPMs to network and hear about successful case studies.

## **Radiation or Uranium Mill Tailings**

Monday, May 21, 1:15 p.m. to 2:45 p.m.

Moderator: Sandra Bourgeois, Region 8  
Presenters: Paul Mushovic, Region 8  
Rich Muza, Region 9  
Mark Purcell, Region 6

### **Evapotranspiration or Extraterrestrials - Which One Will Win Out at Monticello?**

Presenter: Paul Mushovic, Region 8

This paper focused on the successes of the cover, lingering problems, and the lessons learned at a site in Monticello, Utah. The DOE and EPA collaborated on the design, construction, and monitoring of an alternative cover for a uranium mill tailings disposal cell at Monticello. The disposal cell was designed to satisfy the minimum technology guidance specified in Subtitle C of RCRA of 1976, and the radon attenuation and the 200- to 1,000-year longevity requirements in the Uranium Mill Tailings Radiation Control Act of 1978. Environmental conditions — including: relatively low precipitation; high evapotranspiration (ET) potential; and thick unsaturated soils — favor long term hydrologic isolation at semi-arid sites such as Monticello. The cover was designed to mimic the natural soil-water balance at the site. As a result, the cover relies on the water storage capacity of a thick, fine-textured layer of soil that overlies a sand and gravel capillary barrier that stores precipitation while plants are dormant. It also relies on ET to remove stored water during the growing season. The cover was constructed in 1999 and 2000, and there are now 6 years of data and study on the performance of the cover and the establishment of vegetation. Recently, an invasion of voles has further jeopardized the performance of the cover by significantly stressing shrub species necessary for removing water from the soil storage layer.

### **Historic Mine Water Discharges Hinder EPA's Cleanup Effort at Former Uranium Mill, Church Rock, New Mexico**

Presenter: Mark Purcell, Region 6

This paper discussed EPA's cleanup effort at a former uranium mill located in Church Rock, New Mexico that was hindered by historic mine water discharges. Historical mine water discharges to a local arroyo significantly re-saturated and contaminated three shallow water bearing zones beneath the United Nuclear Corporation Superfund site, a former uranium mill and tailings disposal site near Church Rock, New Mexico. The site is also adjacent to the Navajo Indian Reservation. When milling operations began, leachate from acidic tailings seeped from three unlined tailings disposal cells and mixed with the mine water discharges, resulting in increased concentrations of radionuclides, metals, and sulfate. The contaminated ground water migrated under Tribal Trust and Indian Allotment lands and threatens to affect the Reservation. In a 1989 ROD, EPA selected an extraction and evaporation remedy to clean up the contaminated ground water. EPA also selected a post-mining, pre-milling water quality as the background conditions for the site.

The extraction system was shut off several years ago because pumping rates declined as a result of insufficient natural recharge. Furthermore, saturation of these units by mine water discharges dissolved gypsum and other evaporitic minerals, hindering EPA's effort to achieve site cleanup levels for sulfate and total dissolved solids (TDS). EPA is evaluating the merits of a TI waiver for state ground water standards for TDS and sulfate, along with ICs to prevent exposure to contaminated ground water on tribal lands.

## Treatment Cell Supplement to a Permeable Reactive Barrier: Performance Monitoring at a Former Uranium Milling Site near Monticello, Utah

Presenters: Rich Muza, Region 9, and Paul Mushovic, Region 8

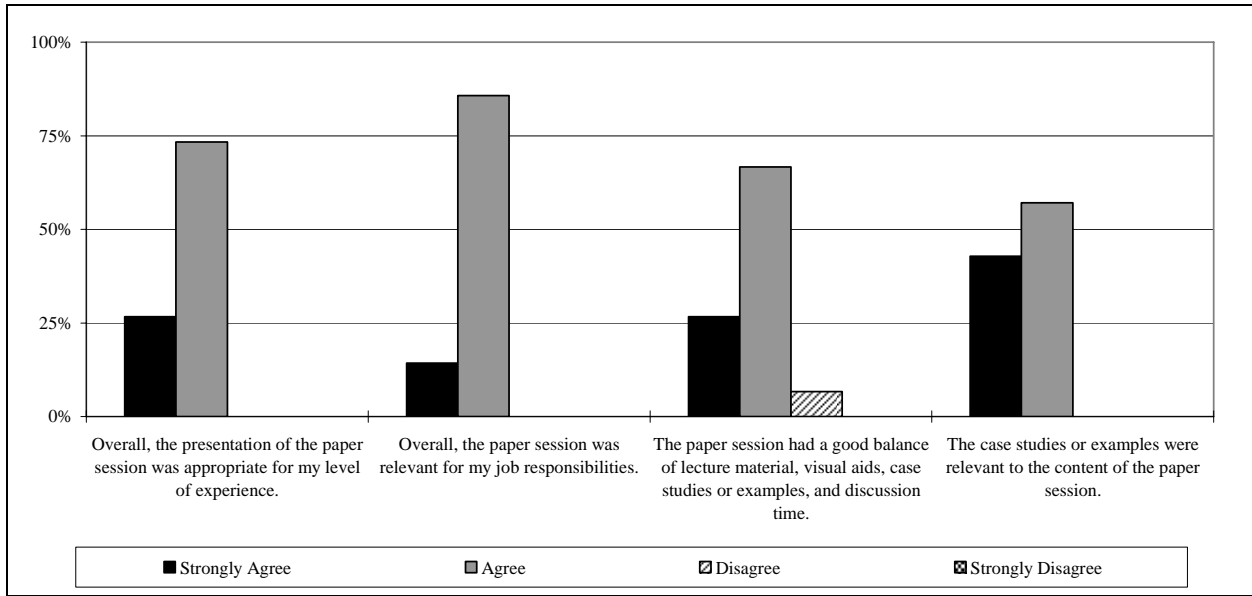
A permeable reactive barrier (PRB) that contains 300 tons of zero valent iron (ZVI) filings was installed in June 1999 at a former uranium milling site near Monticello, Utah. The PRB includes three zones, consisting of (from upgradient) 2 feet of a mixture of gravel and ZVI, 4 feet of ZVI, and 2 feet of gravel. Ground water samples and water-level data have been collected at regular intervals from more than 50 wells in the PRB. Satisfactory performance of the PRB requires that: 1) contaminant concentrations are lowered to regulated levels; 2) a high proportion of the ambient ground water flow is treated; and 3) there are no adverse affects to land use. Contaminant concentrations have remained low in most wells in the ZVI zone to satisfy the first criterion. Attainment of the second and third criteria is less certain, considering a continuously rising ground water mound behind the PRB. This occurrence is likely coupled to an order of magnitude loss of permeability in the PRB, as measured by serial gas-injection slug tests. The decline in permeability is presumably a result of the mineral precipitation observed in the ZVI zone. As a result, the proportion of treated ground water may have decreased significantly from an initial mass-balance estimate of 4 to 5 gallons per minute, and the rising water table now threatens crop production. Flux estimates based on Darcian principles are limited by high spatial and temporal variability. A supplemental treatment cell was installed in June 2005 to alleviate the ground water mounding and provide additional treatment capacity. This cell is currently, as of October 2006, treating about 4.5 gallons per minute and, since construction, has treated in excess of 2.5 million gallons of ground water. Performance data (flows, pressures, and pH) are collected and transmitted daily. Operations personnel indicate that the cell is operating normally. In August 2006, an infiltration gallery was constructed downgradient of the PRB to reintroduce treated ground water into the alluvial aquifer with the hope of improving water quality downgradient of the original PRB. Effluent concentrations of uranium remain less than the ground water standard. The costs of construction and operation of the treatment cell are favorable, and long term maintenance costs for the treatment cell are relatively minor. Furthermore, the amount of data required to confirm the performance of the treatment cell is much less than was required to confirm the performance of the existing PRB at a similar level of confidence.

### Participation and Average Grade

No. of Preregistrants	No. of Students Who Signed Session Roster	Number of Evaluation Forms Submitted	Average Grade
17	21	15	4*

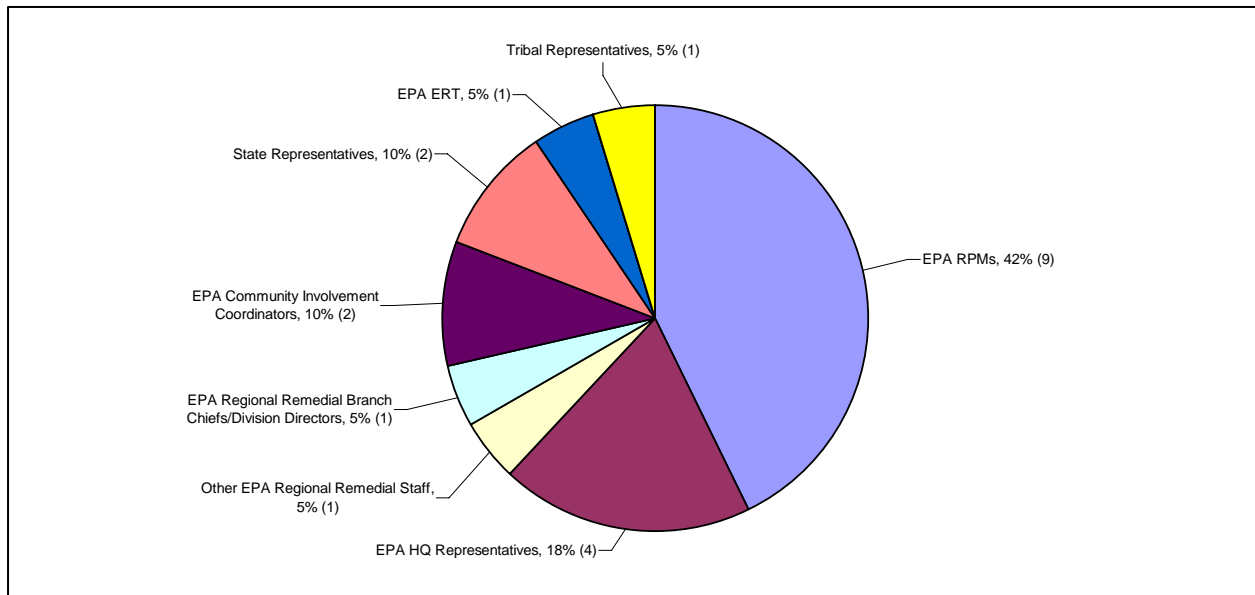
\* The grade displayed is the average of the grades identified on the evaluation forms based on a 5-point scale. The average is calculated by rounding the raw average to the nearest integer (for example, 3.6 rounds to 4).

**Summary of Evaluation Results for the Radiation or Uranium Mill Tailings Session**



The pie chart below illustrates the percentages of students for the paper session by job title. EPA RPMs represented 42 percent of the students.

**Students by Job Title for the Radiation or Uranium Mill Tailings Paper Session**



Summarized below are the written comments provided on the evaluation forms. Similar observations have been combined and paraphrased. Comments submitted by a single respondent are recorded below.

### **Comments on course content**

Shorten

- Lysimeter paper session.

Lengthen

- Recommend visual of Utah State plume advirting front.

Add

- Community acceptance.

### **Comments on instructional methods and materials**

- Delivered in an easy-to-understand fashion for those of us without a science background.
- Not enough time for discussion or questions. (*Two responses*)

### **Comments on course name and abstract expectations**

- Just covered basics of a few case studies.

### **Comments on recommending course to colleagues**

- If they are interested in radium and uranium tailings.
- The presenters tied the aspects of their topics together very well and did an excellent job engaging their audience.
- Interesting.

### **Comments on relevance to job responsibilities and experience level**

- A little too specific and advanced for my experience level.
- Took session for general understanding.

### **Comments regarding the moderator**

- Paper session a bit longer than scheduled. Moderator allowed time for presenter.

### **Summary of the Session**

Sandra Bourgeois submitted the summary for this session, which is recorded below.

This paper session was conducted on Monday, May 21, 2007. Three presentations were given on sites involving uranium mill tailings cleanup efforts.

The first presentation focused on how historic mine water discharges hindered EPA's cleanup efforts at a former uranium mill in Church Rock, New Mexico. Mine water discharges significantly resaturated and contaminated the shallow zones at the former mill site. This coupled with insufficient natural recharge limited the effectiveness of EPA's ground water remedy. Current cleanup standards for sulfate and TDS cannot be achieved so a TI wavier is being evaluated for TDS and sulfate. Hence, a supplemental Feasibility Study is being performed to evaluate other alternatives. This presentation sparked many questions, which were all answered by the presenter.

The second presentation was entertaining and informative and focused on issues related to an ET cover/capillary barrier which was invaded by voles. Due to the invasion of the voles, the cover has not met "desired vegetation densities" particularly for sagebrush. This raises the question, "With the loss of shrub species (i.e., sagebrush) will the cover continue to meet percolation criteria?" The current plan for addressing this issue was outlined. Once again, all questions were answered by the presenter.

The third and last presentation discussed the advantages of adding treatment cells to an existing PRB wall at a former uranium milling site. The presentation discussed the problems occurring in the PRB and showed how the supplemental treatment cell compared to the PRB in terms of cost and performance. In conclusion, treatment cells are very cost effective and can be used with or without a PRB or in conjunction with a slurry wall, collection trench, or a well field.

In conclusion, there were no unanswered questions from the paper session, which ended on time and had no parking lot issues to be addressed.

## **Sampling and Analysis**

Monday, May 21, 3:00 p.m. to 4:30 p.m.

Moderator: Jamey Watt, Region 9  
Presenters: Jane Dolan, Region 1  
Kristine Koch, Region 10

### **Anatomy and Physiology of a DoD Training and Testing Range**

Presenter: Jane Dolan, Region 1

Initial intrusive investigations of a range on the Massachusetts Military Reservation (MMR) resulted in trace detections of explosive compounds, even though greater potential impacts were suggested by the signs present. Range features included: firing points; impact areas; backstop berms; OB/OD areas; a melt-pour facility; and disposal areas. Additional records reviewed and exploratory work expanded on the delineation effort. Symptoms of range contamination were manifested in ground water monitoring wells after the accumulated information could be examined and common sense judgments applied to the existing evidence.

This paper presented the lines of evidence that were developed based on a records review, witness interviews, soil sampling, geophysical surveys, ground water monitoring well installation and sampling, and modeling. All these lines of information were holistically analyzed to delineate the nature and extent of contamination on and emanating from a range on the MMR. The target audience was federal, state, and local government employees, citizens, and contractor personnel interested in the investigatory approach, results, and lessons learned from a remedial investigation of a FF site.

### **Multi-Incremental Sampling: An Innovative Approach for Site Characterization at the Portland Harbor Superfund Site**

Presenter: Kristine Koch, Region 10

This paper discussed the methodology and findings of multi-incremental sampling in contract with the previous sampling methodologies and findings at a property located within the Portland Harbor Superfund site. Since the early 1900s, there has been a very lengthy history of diverse industrial operations at the site. The State of Oregon oversaw the environmental studies conducted at the site prior to 2006 and issued a ROD for soil contamination at the site in February 2005. Based on historical soil sampling conducted at the site, the following soil COCs have been identified: metals including antimony, arsenic, cadmium, chromium, copper, lead, nickel, and zinc; polynuclear aromatic hydrocarbons; PCBs; diesel and heavy oil range petroleum hydrocarbons; pentachlorophenol; tributyltin; and dioxins/furans. As part of a Bona Fide Prospective Purchaser agreement for this property, Region 10 has applied the concept of multi-incremental sampling for the property. The multi-incremental sampling concept is partially based on EPA's guidance document, *Guidance for Obtaining Representative Laboratory Analytical Subsamples from Particulate Laboratory Samples* (USEPA 2003). Multi-incremental sampling is an innovative approach to evaluate whether soils at a site can be considered "clean" for COCs.

This approach, which is being disseminated to EPA technical staff throughout the U.S., involves collecting multi-incremental samples composed of 30 or more sub-samples within each designated sampling area, which results in a high sampling density. The multi-incremental sampling approach is considered more representative of areas with no known source of hazardous constituents. This approach has been developed using statistical analysis to assess the representativeness of sampling; its effectiveness

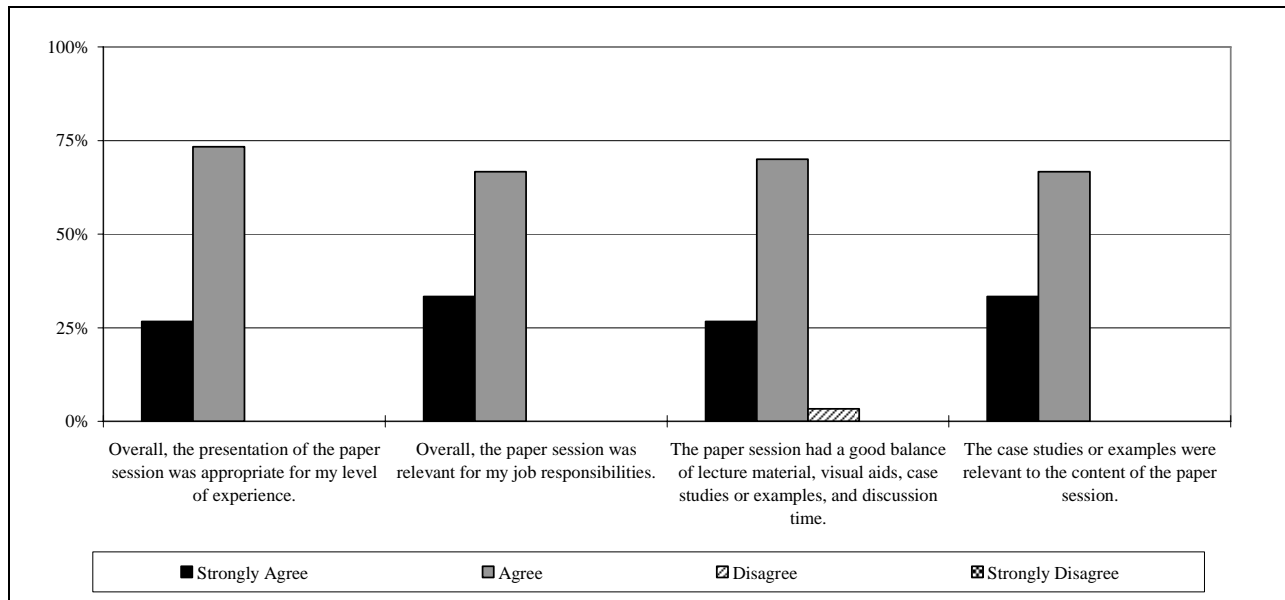
has been confirmed by empirical testing. The number of samples required for characterization of a surface using the multi-incremental sampling approach is based on statistical analysis and is independent of the area of the surface. Therefore, the number of samples collected from any one area may not appreciably differ from the number of samples collected from an area half the size of the first area. However, more samples may be necessary to delineate the contamination in that area for a removal action.

**Participation and Average Grade**

No. of Preregistrants	No. of Students Who Signed Session Roster	Number of Evaluation Forms Submitted	Average Grade
46	36	30	4*

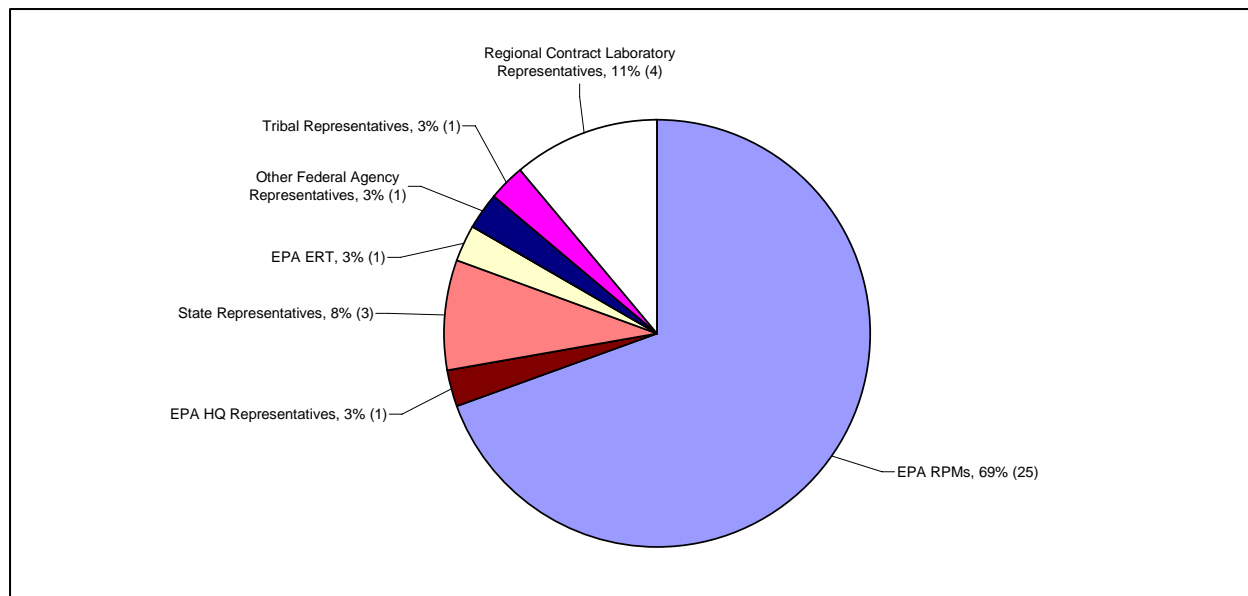
\* The grade displayed is the average of the grades identified on the evaluation forms based on a 5-point scale. The average is calculated by rounding the raw average to the nearest integer (for example, 3.6 rounds to 4).

**Summary of Evaluation Results for the Sampling and Analysis Paper Session**



The pie chart below illustrates the percentages of students for the paper session by job title. EPA RPMs represented 69 percent of the students.

### Students by Job Title for the Sampling and Analysis Paper Session



Summarized below are the written comments provided on the evaluation forms. Similar observations have been combined and paraphrased. Comments submitted by a single respondent are recorded below.

#### Comments on course content

##### Lengthen

- Better overview and explanation of multi-incremental sampling.
- Describe more fully the design graphically. That is what generated the most questions.
- The second presentation needs more explanation.
- Multi-incremental sampling presentation.
- Conceptual site model.

#### Comments on course name and abstract expectations

- Above and beyond.
- Sort of met what I thought the class would be. It was a little more focused on certain types of sampling methods. I thought it would cover a broader overview.
- I thought there would be more information on analysis, but the multi-increment presentation which presented a relatively new approach was excellent.

#### Comments on instructional methods and materials

- There were no presentation materials for the first session. Presenter could not be heard.
- More fully describe the sampling scenarios.
- Great case studies. (*Two responses*)
- Good panelists and interaction with the attendees.
- Thanks! Very interesting.

#### Comments on recommending course to colleagues

- The first part was good for MMR program.
- Multi-screen sampling was confusing but interesting.

- Multi-incremental sampling and case studies were valuable.
- Case studies are crucial to disseminating technical information.

**Comments on relevance to job responsibilities and experience level**

- Extremely helpful.

**Comments regarding the moderator**

- Good at keeping it moving. In break he suggested for everybody to meet your neighbors.
- Well managed.
- Good moderator.

**Summary of the Session**

James Watt submitted the summary for this session, which is recorded below.

Types of Questions Asked: There was good audience participation with both paper presentations. Many questions focused on the statistics and “representativeness” of the sampling methods used. Other questions asked for more details in order to distinguish the difference between multi-incremental versus completely random sampling. Many in the audience asked questions concerning how the state and local regulating agencies accepted the sampling methods and analysis used. Many good questions were asked about comparing the costs savings in the short term versus the long term.

Special Matters Raised – Topics for Future Discussion: The audience was very interested in learning about these sampling techniques. For the most part, I felt like the techniques presented were relatively new to most of the attendees. Interesting topics to address in the future stemming from this paper presentation would be “coordinating sampling events with the state,” “random versus multi-incremental sampling,” and always any future discussions on statistics and what makes a sampling plan “representative” would be welcome.

## **Sediment**

Monday, May 21, 1:15 p.m. to 2:45 p.m.

Moderator: Marie Lacey, Region 9  
Presenters: David Dickerson, Region 1  
Marie Lacey, Region 9  
Sharon Lin, Region 9

### **Consideration of Confined Aquatic Disposal Cells and Underwater Capping for a Cleanup in New Bedford Harbor, Massachusetts**

Presenter: David Dickerson, Region 1

This paper discussed confined aquatic disposal (CAD) cells and considerations in underwater capping used in a cleanup in New Bedford Harbor. The 1998 ROD for New Bedford Harbor calls for the removal of approximately 900,000 cubic yards (cy) of sediment highly contaminated with PCBs in the upper and lower harbor. Full scale hydraulic dredging, dewatering, and off-site disposal began in 2004 and, together with earlier accelerated cleanups, approximately 125,000 cy of contaminated sediment has been remediated to date. At the current funding rate of \$15 million per year, it is estimated that it will take many decades to complete the harbor cleanup with this approach, with huge impacts on the overall cleanup cost. As a result, the project team has initiated a planning-level analysis of potential alternative approaches that would involve CAD cells and underwater capping in combination with dredging. This presentation discussed the alternatives developed to date and summarized the main “pros and cons” of each. The presentation focused on CAD cells and their potential as an increasingly important tool in the toolbox for remediating contaminated sediments. For example, the presentation explained the potential for use of the clean sand and gravel created during the excavation of CAD cells as a source of underwater capping material.

### **Lessons Learned from Southern California Coastal Fish Survey – Palos Verde Shelf Superfund Site**

Presenter: Sharon Lin, Region 9

This paper discussed the lessons learned from EPA’s fish monitoring effort for the Palos Verdes Shelf Superfund site and the importance of using Standard Reference Material (SRM) of the same matrix in fish tissue analysis. EPA and the natural resources trustees jointly conducted the fish monitoring effort in Southern California coastal waters from 2002 through 2004. About 900 fish tissue samples were analyzed for dichlorodiphenyltrichloroethane (DDT), PCBs, dieldrin, chlordane, and mercury. The process involved a rigorous study design and an extensive and careful laboratory selection process. After finding that the results for the fish tissue SRM (a critical quality assurance and quality control [QA/QC] indicator) were consistently biased low in the analysis for organic constituents, the issue of underreporting the contaminant levels was carefully considered. Researchers worked with the laboratory to identify the underlying problems and correct them. The presentation shared the details of the steps that have been taken to ensure the laboratory delivers reliable analytical results. The experience sheds some light on the importance of having a SRM of the same matrix when fish tissue is analyzed. The research indicates that most analysis during projects does not use an SRM based on fish tissue on a per-batch basis as a key QA/QC measure.

The results indicate that DDT and PCB contaminant levels are about 5 to 10 times higher in whole fish than in fish fillets for white croakers (soft bottom species) and kelp bass (hard bottom species). The presentation shared details of the whole body and fish fillet comparison study. The message is that modifying fish cooking and preparation can reduce health exposures caused by PCBs and DDT.

**Announcing... Formation of an EPA National Sediment Forum!**

Presenter: Marie Lacey, EPA Region 9

The purpose of this new forum was to give RPMs and others working on sediment sites an opportunity to share lessons learned, ask questions of each other, discuss sediment issues and news, hear about recent national policy, and provide a network for information exchange. Some of the potential topics for the forum included:

- Contaminant migration through caps
- Treatment technologies
- PCBs as a cleanup goal in fish
- Sediment resources for RPMs
- Updates on ORD sediment research
- Development of long-term monitoring programs
- Selecting an appropriate fate & transport model
- Determining an appropriate time frame to reach risk reduction or achieve cleanup goals
- Residual risk
- Institutional controls for sediment remedies

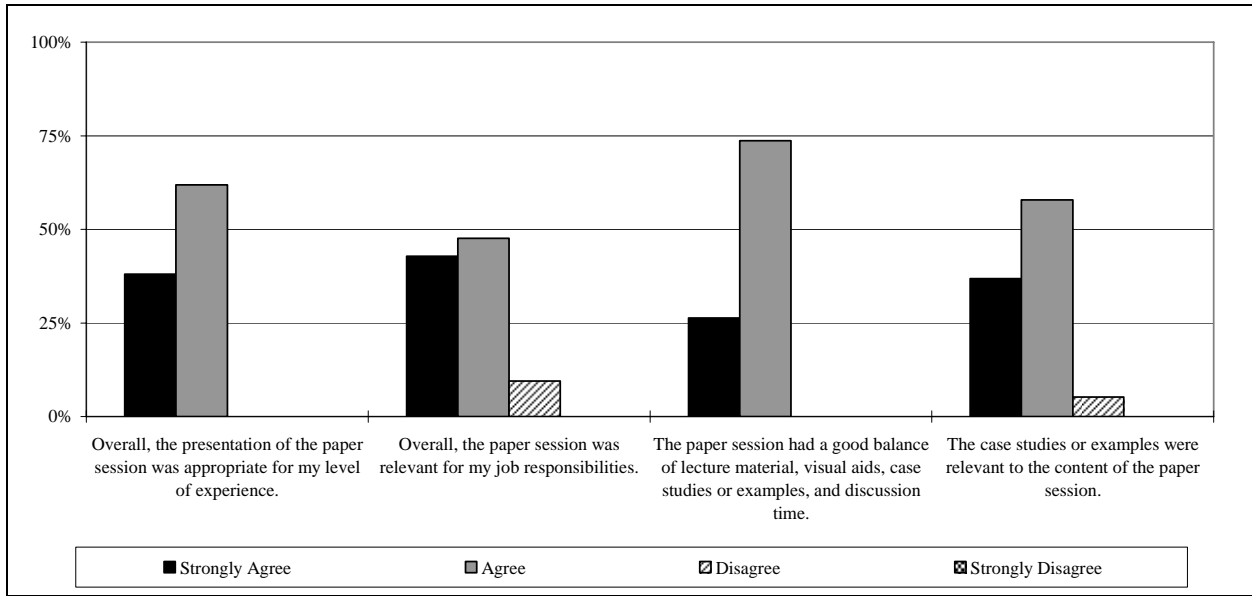
Did you think this forum was a good idea? Did you agree with the proposed objectives of the group? Were you interested in participating? What other topics would you have liked the forum to cover? This forum was in the early stages and wanted students' ideas!

**Participation and Average Grade**

No. of Preregistrants	No. of Students Who Signed Session Roster	Number of Evaluation Forms Submitted	Average Grade
29	31	21	4*

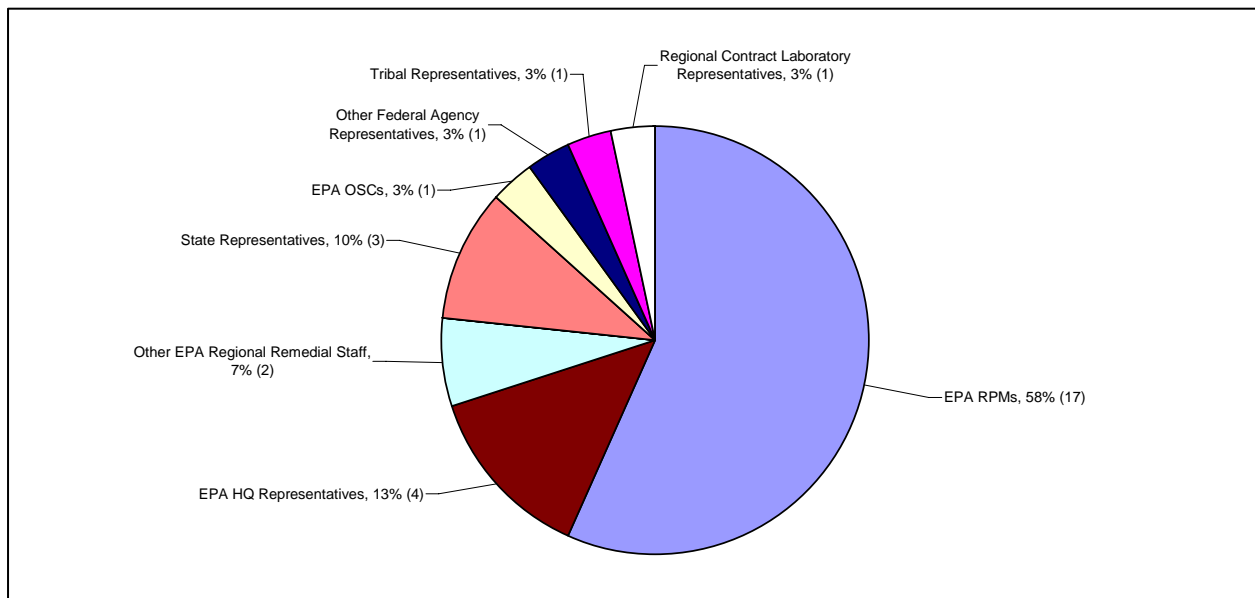
\* The grade displayed is the average of the grades identified on the evaluation forms based on a 5-point scale. The average is calculated by rounding the raw average to the nearest integer (for example, 3.6 rounds to 4).

**Summary of Evaluation Results for the Sediment Paper Session**



The pie chart below illustrates the percentages of students for the paper session by job title. EPA RPMs represented 58 percent of the students.

**Students by Job Title for the Sediment Paper Session**



Summarized below are the written comments provided on the evaluation forms. Similar observations have been combined and paraphrased. Comments submitted by a single respondent are recorded below.

**Comments on course content**

Lengthen

- o Discussion of sediment cleanup levels.

### **Comments on instructional methods and materials**

- Found the two presentations marginally relevant to each other.
- It would have been helpful to receive handouts (at least a summary) for each presenter.
- First paper did not relate fish data to sediment data.

### **Comments on course name and abstract expectations**

- Good case studies.

### **Comments on recommending course to colleagues**

- Only if dealing with the issues presented. I signed up mostly to hear about how New Bedford Harbor is being remediated.
- Informative and addressed some pressing sediment issues.
- New Forum, sediments forum, could be helpful to RPMs.
- If they have a sediment transport capacity.

### **Comments on relevance to job responsibilities and experience level**

- A bit over my head.
- Could be in the future if I were to get involved with a relevant site.

### **Summary of the Session**

Marie Lacey submitted the summary for this session, which is recorded below.

Sharon Lin, RPM, Region 9, presented the lessons learned from EPA's fish monitoring effort for the Palos Verdes Shelf Superfund Site in California. The study involved approximately 900 fish tissue samples, which were analyzed for DDT, PCBs, dieldrin, chlordane, and mercury. Sharon described the study design and provided two case studies. The studies found that the results for the SRM, a critical quality assurance and quality control indicator, were consistently biased low in the analysis of organic constituents, resulting in underreporting of contaminant levels in fish. Researchers worked with the laboratory to identify the underlying problems and correct them. One of her main messages was the importance of using SRM of the same matrix in fish tissue analysis. Sharon reported on the comparison of DDT and PCB levels in whole fish versus fish fillets. Some session students questioned Sharon's conclusion that lipid normalizing is not good for risk assessment; they pointed out that no cross-species comparison had been done.

Dave Dickerson, RPM, Region 1, discussed the use of CAD cells and their consideration in underwater capping for a cleanup in New Bedford Harbor, Massachusetts. Dave described the selected remedy of hydraulic dredging, dewatering, and off-site disposal. The 1998 ROD calls for the removal of approximately 900,000 cy of highly contaminated sediment, and about 125,000 cy have been removed to date. Dave described the difficulties in removing the remaining contamination due to funding issues. He stated that at the project's current funding rate of only \$15 million a year, the harbor cleanup will take several decades to complete. The project team is analyzing potential alternative approaches involving CAD cells and underwater capping, in combination with dredging, to complete the cleanup. Dave described how partnering with the local port authority provided EPA with no-cost capping material from the port's ongoing navigational dredging. The presentation was a useful case study in looking "outside the box" to find significant cost savings for Superfund cleanups.

Marie Lacey, RPM, Region 9, gave a presentation on a new proposal for the formation of an EPA National Sediment Forum. The purpose of the forum is to create an information exchange and communication network for RPMs and others working on sediment sites. Marie led a discussion on the purpose of the forum and solicited feedback from session students on the proposed goals and activities of the forum. Suggestions from the session students will be passed on to the forum workgroup members. Marie provided contact information for joining the forum.

## Analytical Services Branch Panel Session – Services Available

Thursday, May 24, 10:30 a.m. to 12:00 p.m.

Moderator: Joe Foran, Computer Sciences Corporation  
 Panelists: Phil Cocuzza, EPA OSWER  
 Elizabeth Holman, EPA OSRTI  
 Michael S. Johnson, EPA OSRTI  
 Bruce Means, EPA OSWER  
 John Nebelsick, EPA OSWER  
 Keith Stewart, EPA OAM

The Analytical Services Branch – Services Available panel session focused on the analytical laboratory and support services that are available to RPMs to characterize sites. RPMs can access a number of different resources to obtain fixed-laboratory services, including EPA’s regional laboratory services, the national CLP, state laboratory services, and laboratory services accessed under sub-contracts from field sampling contractors. This panel session provided a venue for RPMs to be briefed on available services and an opportunity to discuss areas where needs are not being met. The panel discussed the following topics:

- Overview of the available fixed-laboratory services, electronic tools, and support services.
- The regional perspective and experiences in using different services.
- An overview of the benefits and issues that may arise using different approaches.
- A discussion of future needs and the tools and guidance needed to address them.

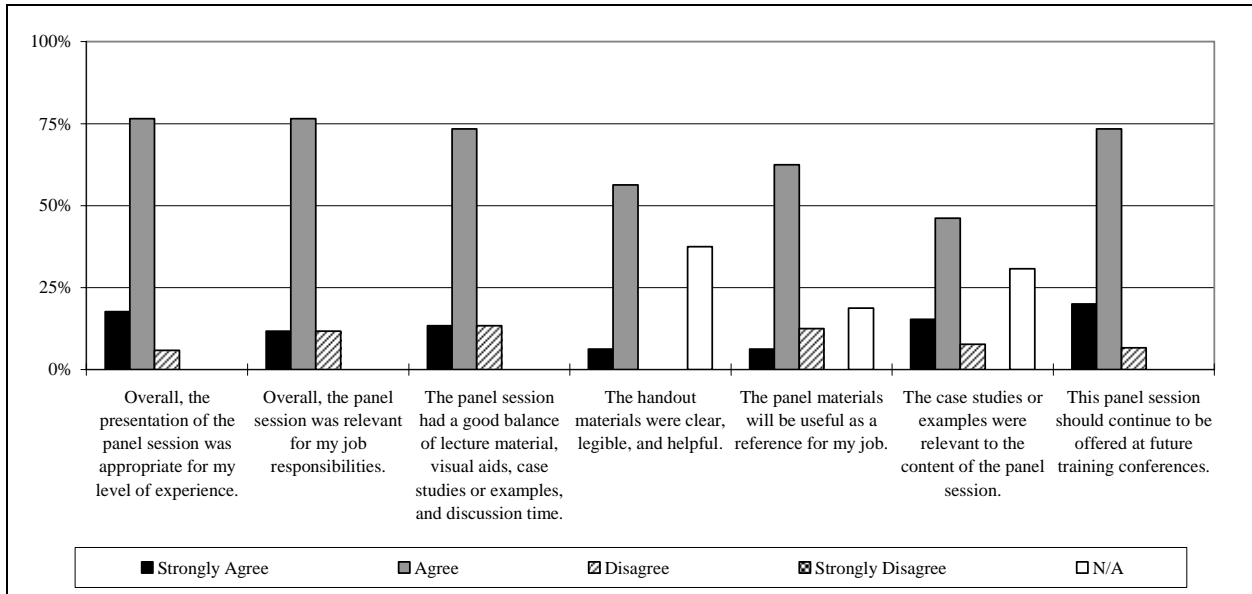
### Participation and Average Grade

No. of Preregistrants	No. of Students Who Signed Session Roster	Number of Evaluation Forms Submitted	Average Grade
35	63 <sup>1</sup>	17	4*

\* The grade displayed is the average of the grades identified on the evaluation forms based on a 5-point scale. The average is calculated by rounding the raw average to the nearest integer (for example, 3.6 rounds to 4).

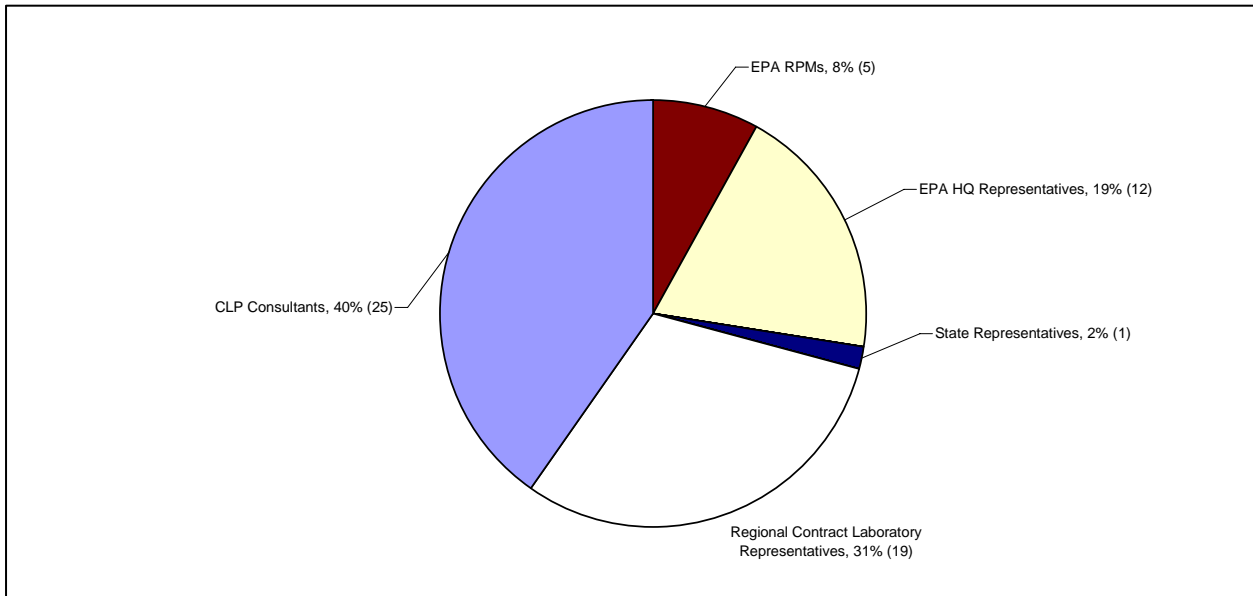
<sup>1</sup> The total number of attendees includes Contract Laboratory Program contractors.

**Summary of Evaluation Results for the Analytical Services Branch Panel Session – Services Available Panel Session**



The pie chart below illustrates the percentages of students for the panel session by job title. EPA RPMs represented 8 percent of the students.

**Students by Job Title for the Analytical Services Branch – Services Available Panel Session**



Summarized below are the written comments provided on the evaluation forms. Similar observations have been combined and paraphrased. Comments submitted by a single respondent are recorded below.

### **Comments on relevance to job responsibilities and experience level**

- Panel was very appropriate. They were not challenged by questions.

### **Comments on course content**

Lengthen

- Information on data (training).

Omit

- Staged Electronic Data Deliverable/Contract Compliance Screening; not from the Analytical Services Branch conference but omit from this panel discussion.

### **Comments on instructional methods and materials**

- Not everyone received handouts.
- The panel discussion in 2006 contained more feedback from RPMs to the CLP community.
- Should have said that presentations preceded actual panel.
- Pace was a little slow due to lack of input from RPMs.
- More time needed.
- Good input.
- Would like to see more participation on the part of RPMs (*Six responses*), especially Region 3.
- In a panel discussion like this, the panel should have RPMs someone from the lab and the Analytical Services Branch.
- Staged Electronic Data Deliverable overview/self-inspection overview did not seem appropriate for session since labs are already using it.
- The panel was excellent but needs ways to structure and ensure questions from relevant students so all panelists can participate.
- The root cause of the sampling issues discussed is lack of training for samplers. Use of a database driven matrix with training needs assessment similar to what we use in our quality management would help standardize sampling procedures. Also, use of a Web-based training module (once the sampling guidance document has been finalized) with electronic signature would ensure that the sampling document was read by sampler. The addition of a test (requiring a passing score) would further reduce sampling defects. To determine the extent of the sampling issue baseline metrics should be determined and followed up periodically to monitor and prevent. Labs should be asked to provide data to assess the extent of the defects at baseline and period interest.

### **Comments on additional/new course offerings for the future**

- Needs some tweaking.
- Did not get a whole lot out of this.
- There should have been more RPMs who will discuss any issues they have with labs on data, etc.
- Different panelists.

### **Comments regarding the moderator**

- Great job! (*Two responses*)
- Excellent.

### **Summary of the Session**

The moderator summary for this session was not provided.

## Asbestos: A Paradigm Shift Toward Risk Based Site Evaluations

Thursday, May 24, 8:45 a.m. to 10:15 a.m.

Moderator: Jennifer Wendel, Region 4  
 Panelists: Brian Brass, ERT  
 Arnold Den, Region 9  
 Aubrey Miller, Region 8  
 Chuck Nace, Region 2

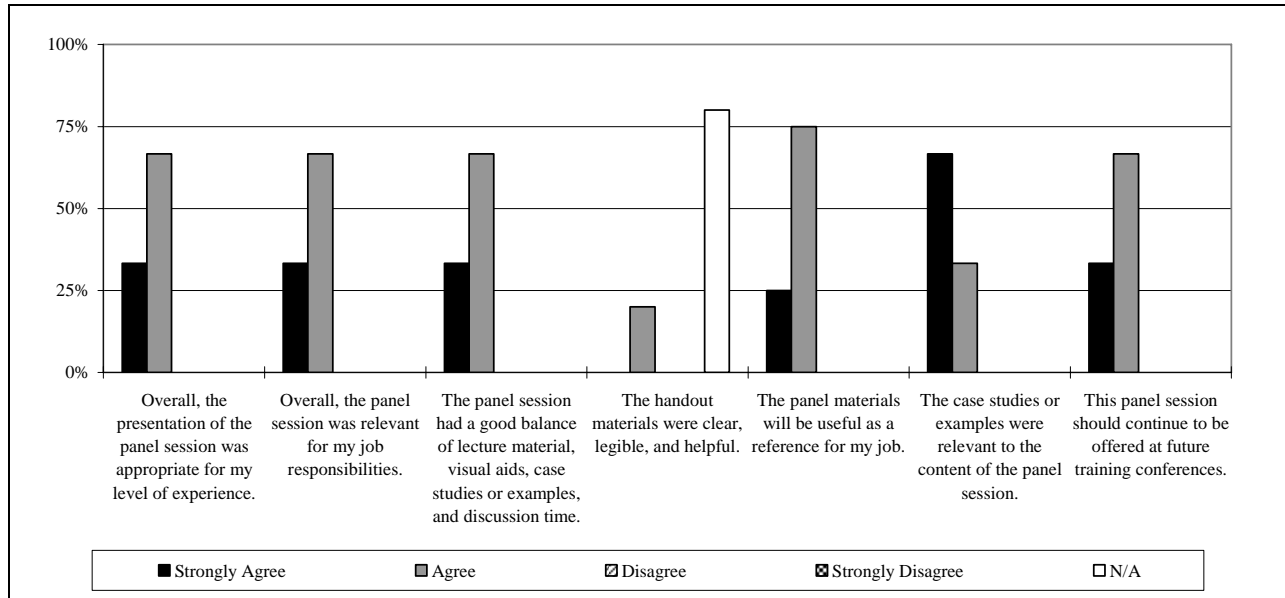
Historically, asbestos has been addressed in the Superfund program using the definition of asbestos-containing materials described in the National Emission Standards for Hazardous Air Pollutants program, that is, greater than 1 percent by weight. An OSWER Directive (*Clarifying Cleanup Goals and Identification of New Assessment Tools for Evaluating Asbestos at Superfund Cleanups, OSWER Directive 9345.4*) released in August 2004 indicated that the 1 percent definition should not be used and that a risk-based, site-specific action level should be developed instead when the need for removal or remedial actions is evaluated. This directive pointed investigations toward a risk-based approach to site evaluation; however, it did not present a detailed framework for investigating asbestos sites. This information session provided a decision tree and framework that can be used at removal and remedial sites, detailed standard operating procedures, and technical information to allow flexibility in using the decision tree and framework. Additionally, this session described sampling and analytical techniques for asbestos in air, soil, water, and bulk materials. The focus of the discussion was on activity-based sampling (ABS) and collection of air samples to characterize potential exposure. The main purpose of ABS is to disturb the media of interest — generally soil — so that fibers that are contained within the media are released into the air, which can then be measured by collecting and analyzing an air sample. ABS can be accomplished in the laboratory or in the field, and the associated methods were discussed further in this session. It is important to use a sampling methodology that will provide a measure of airborne asbestos. Finally, discussions on risk assessment methods and toxicity assessments were also included.

### Participation and Average Grade

No. of Preregistrants	No. of Students Who Signed Session Roster	Number of Evaluation Forms Submitted	Average Grade
17	13	6	4*

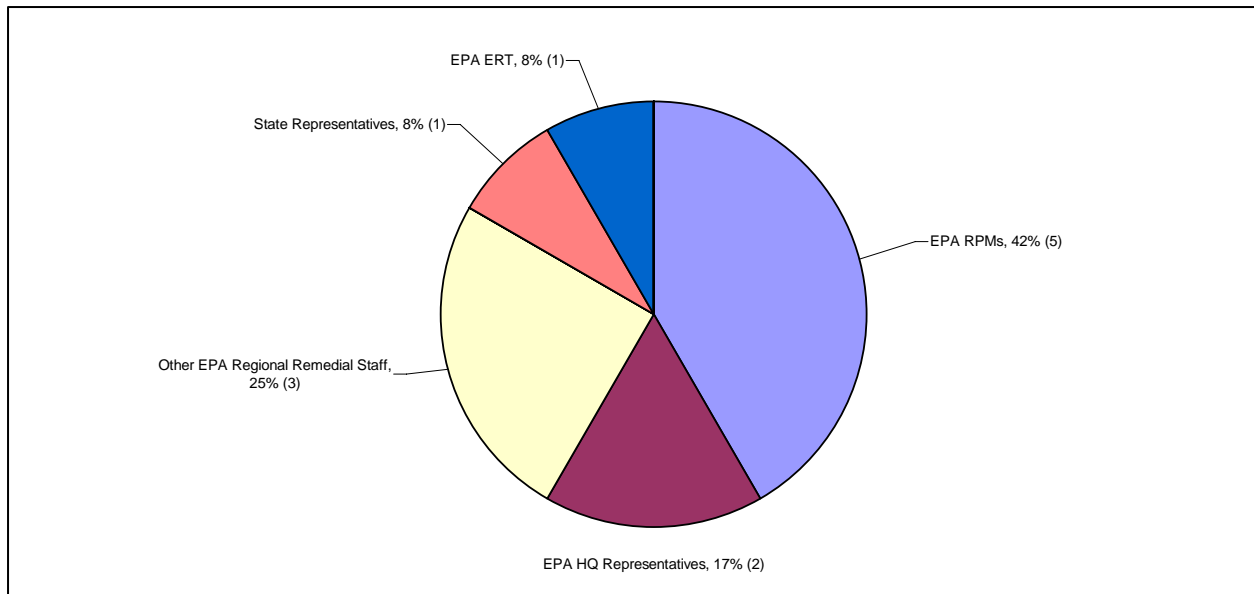
\* The grade displayed is the average of the grades identified on the evaluation forms based on a 5-point scale. The average is calculated by rounding the raw average to the nearest integer (for example, 3.6 rounds to 4).

**Summary of Evaluation Results for the Asbestos: A Paradigm Shift Toward Risk Based Site Evaluations Panel Session**



The pie chart below illustrates the percentages of students for the panel session by job title. EPA RPMs represented 42 percent of the students.

**Students by Job Title for the Asbestos: A Paradigm Shift Toward Risk Based Site Evaluations Panel Session**



Summarized below are the written comments provided on the evaluation forms. Similar observations have been combined and paraphrased. Comments submitted by a single respondent are recorded below.

**Comments on relevance to job responsibilities and experience level**

- To understand issues for performing analysis of samples, sampling, etc.

**Comments on course content**

Lengthen

- Should have been a complete half day session.

**Comments on instructional methods and materials**

- No handouts. Would have liked copies of presentation. (*Two responses*) Probably will be posted on NARPM site after conference.
- Really needed handouts for topics covered!
- Partially. Needed more time and details.

**Comments on recommending course to colleagues**

- If working on asbestos sites.

**Comments on additional/new course offerings for the future**

- Need longer session with more detail on asbestos field and lab techniques and asbestos toxicity.

**Summary of the Session**

The moderator summary for this session was not provided.

## Cleanup – Clean Air Initiative

Monday, May 21, 3:00 p.m. to 4:30 p.m.

Moderator: Kim Hoang, Region 9  
 Panelists: Rosemarie Caraway, Region 9  
 Michael Gill, Region 9  
 Penelope McDaniel, Region 9  
 Martin Zeleznik, Region 9

The goal of the Cleanup – Clean Air (CCA) Initiative is to encourage, facilitate, and support the use of cleaner heavy-duty diesel equipment and renewable energy technologies at Superfund cleanup and redevelopment sites. CCA was launched in early 2006 in the Region 9 Superfund Division and is a joint effort with the Air Division. Currently, efforts encompass Regions 5, 8, 9, and 10. The goal is to involve all regions involved and assign at least one person to work on CCA by the end of 2007.

The presentation provided an overview of CCA, including near- and long-term goals such as development of: 1) contract and grant language that encourages use of cleaner diesel equipment and renewable energy technologies; 2) pilot projects at various Superfund sites; and 3) the Smart Energy Resources Guide (SERG). SERG will be a one-stop-shop for EPA, state project managers, and contractors to help evaluate the feasibility of using sources of renewable energy to help augment energy demands at cleanup sites, as well as reducing diesel emissions from the equipment used at these sites. The SERG will cover all relevant technical and economic aspects of: 1) three main renewable energy sources, namely photovoltaic, wind, and biogas; 2) diesel construction equipment retrofits (diesel particulate filters and diesel oxidation catalysts); and 3) alternative and cleaner fuels (biodiesel, biodiesel blends, and ultra low sulfur diesel).

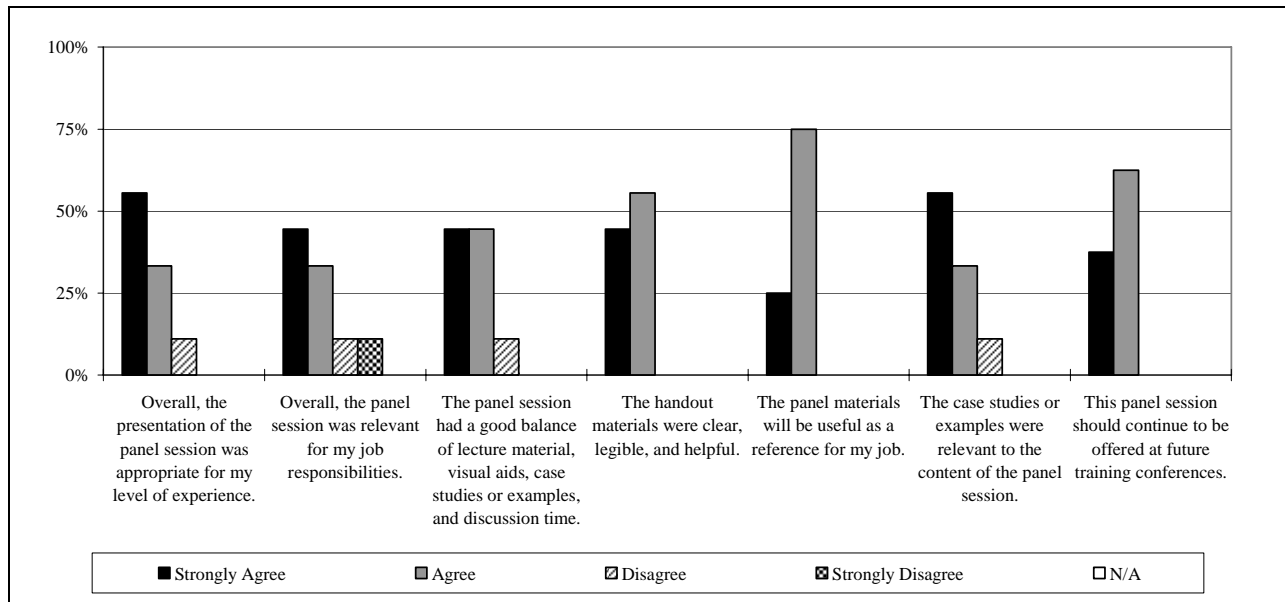
The session also included success stories, as well as current pilot projects, and a brief overview of the upcoming SERG.

### Participation and Average Grade

No. of Preregistrants	No. of Students Who Signed Session Roster	Number of Evaluation Forms Submitted	Average Grade
14	19	9	4*

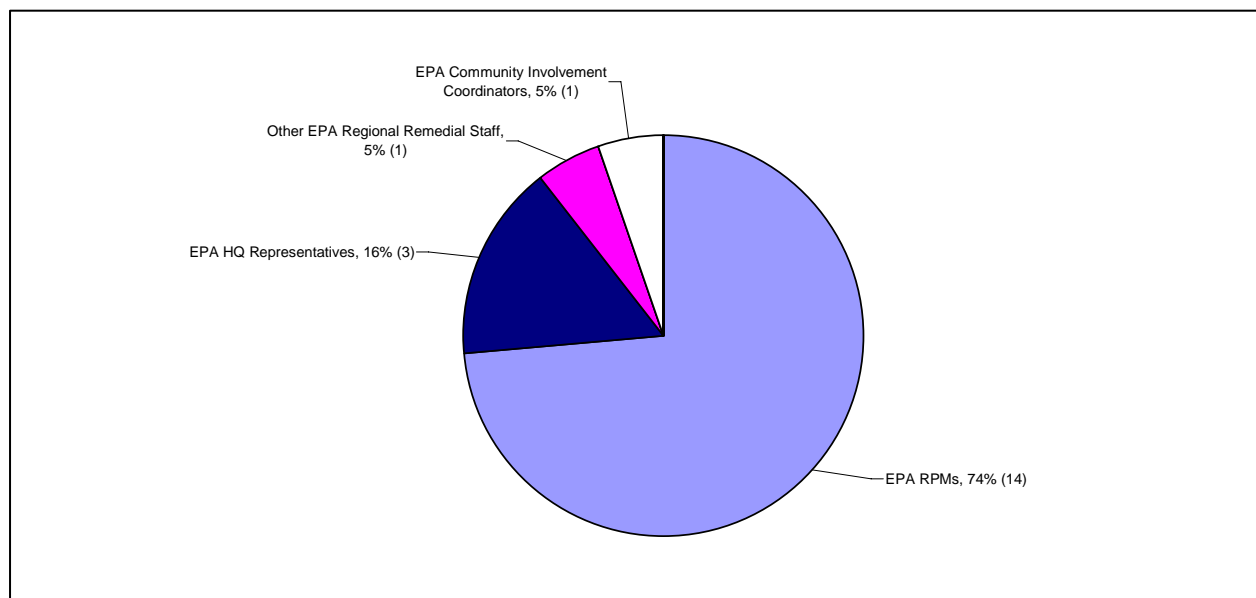
\* The grade displayed is the average of the grades identified on the evaluation forms based on a 5-point scale. The average is calculated by rounding the raw average to the nearest integer (for example, 3.6 rounds to 4).

**Summary of Evaluation Results for the Cleanup – Clean Air Initiative Panel Session**



The pie chart below illustrates the percentages of students for the panel session by job title. EPA RPMs represented 74 percent of the students.

**Students by Job Title for the Cleanup – Clean Air Initiative Panel Session**



Summarized below are the written comments provided on the evaluation forms. Similar observations have been combined and paraphrased. Comments submitted by a single respondent are recorded below.

**Comments on relevance to job responsibilities and experience level**

- Have 6 PRP-lead sites. See little applicability.
- Food for thought.

### **Comments on course content**

Lengthen

- More questions and answers.

Add

- Discussion of how community receives this.

### **Comments on instructional methods and materials**

- Would also be ok to take a few questions after each presentation. Very interactive discussion at end.
- Some slides had too much information or we could not read them.
- Okay.
- Excellent topic, although I am biased. EPA should lead the way in efficiency and renewable energy use and sustainability ideas; Superfund as a technology leader could definitely be the lead.
- Quality of speakers varied. Jennifer Wang was very well prepared. Martin's presentation was excellent.
- I like hearing about the cutting edge initiatives involving RPMs and site work.
- Everyone did a great job! Martin was a very entertaining presenter.
- Very interesting and good presentations! Thank you!!

### **Comments on recommending course to colleagues**

- Very useful and relevant to current concerns about global warming.
- Excellent cutting edge stuff. Need to get the word out.
- Very informative.

### **Comments on additional/new course offerings for the future**

- Need to do more homework and provide help on using it at sites.
- Updates, new case studies and sites, results of pilot studies.

### **Summary of the Session**

Kim Hoang submitted the summary for this session, which is recorded below.

The session included five speakers, with six presentations. The order of the presentations was as follows: Kim Hoang introduced the session topic and speakers. The five speakers were Penelope McDaniel, Region 9; Michael Gill, EPA ORD; Jennifer Wang, Region 9; Martin Zezelnik, Region 9; and Rosemarie Caraway, Region 9; however, Ms. Caraway had an emergency and was not able to join the session.

Kim described the format of the session. Of the six presentations, the first three described the various efforts that Region 9 Superfund was pursuing, and the next three presentations described four pilot studies applying these efforts in Superfund sites. The six presentations and respective presenters were:

1) CLEANUP – CLEAN AIR: DIESEL EMISSIONS AND GREEN HOUSE GAS REDUCTIONS presented by Penelope McDaniel. Ms. McDaniel gave an overview of the current efforts in Region 9 Superfund Division on integrating the Clean Air program with Superfund Cleanup, by a) promoting the use of cleaner heavy-duty diesel vehicles and construction equipment at Superfund cleanup and redevelopment sites and b) reducing greenhouse gases at Superfund cleanup and redevelopment sites by using renewable energy technologies, encouraging energy efficiencies, and promoting carbon sequestration.

2) **SAVING ENERGY IN SUPERFUND – A LITTLE HISTORY** presented by Michael Gill. Mr. Gill described the on-going effort in Superfund to provide ways to save and create energy at waste sites, which is documented in an Engineering Forum Issue Paper published in May 2004: “Introduction to Energy Conservation and Production at Wastes Cleanup Sites.” Future effort will focus on the development of an energy calculator that provides estimates on energy expenditure for various cleanup remedies.

3) **SMART ENERGY RESOURCE GUIDE (SERG)** presented by Jennifer Wang. Ms. Wang is developing a guidance document to provide information on implementing renewable energy technologies and reducing diesel emissions on Superfund cleanup and redevelopment sites.

4) **PILOT PROJECTS AT HUNTERS POINT NAVAL SHIPYARD IN SAN FRANCISCO, CALIFORNIA, AND AT WHITTIER NARROWS SUPERFUND SITE IN WHITTIER, CALIFORNIA** presented by Penelope McDaniel. At Hunters Point Naval Shipyard, the pilot project retrofitted construction vehicles to use cleaner fuel. At Whittier Narrows, the pump schedule for extraction wells was optimized to save energy.

5) **PILOT PROJECT AT HASSAYAMPA LANDFILL SUPERFUND SITE IN BUCKEYE, ARIZONA** presented by Martin Hezelnik. Mr. Hezelnik described the Hassayampa Landfill Superfund Site. An egg farm was located adjacent to the Hassayampa Landfill site, and since one of the PRPs was a local power utility, an option to use chicken manure for renewable energy was explored for the egg farm.

6) **PILOT PROJECT AT PEMACO SUPERFUND SITE IN MAYWOOD, CALIFORNIA** presented by Penelope McDaniel for Rosemarie Caraway. Ms. McDaniel described the Pemaco Superfund Site; the pilot project at Pemaco was to install and use solar energy to offset the large energy requirement for the Pemaco remedy.

The presentations took about an hour, followed with a lively discussion for about half an hour. Several questions were raised to clarify the presentations. Several suggestions were made: a) to address the additional implementation cost of this program in Superfund cleanup; b) to develop a metric to measure the results of implementing this program; c) to provide a full-time staff to work on the issue; and d) to expand the program Agency wide by developing national guidance on integrating the Clean Air program into Superfund Cleanup.

## DoD's Perspective on Development of Innovative Approaches for Treatment of Emerging Contaminants

Thursday, May 24, 8:45 a.m. to 10:15 a.m.

Moderator: Mary Cooke, EPA FFRRO

Panelists: Paul Hatzinger, Shaw Environmental, Princeton Research Center  
 Andrea Leeson, SERDP

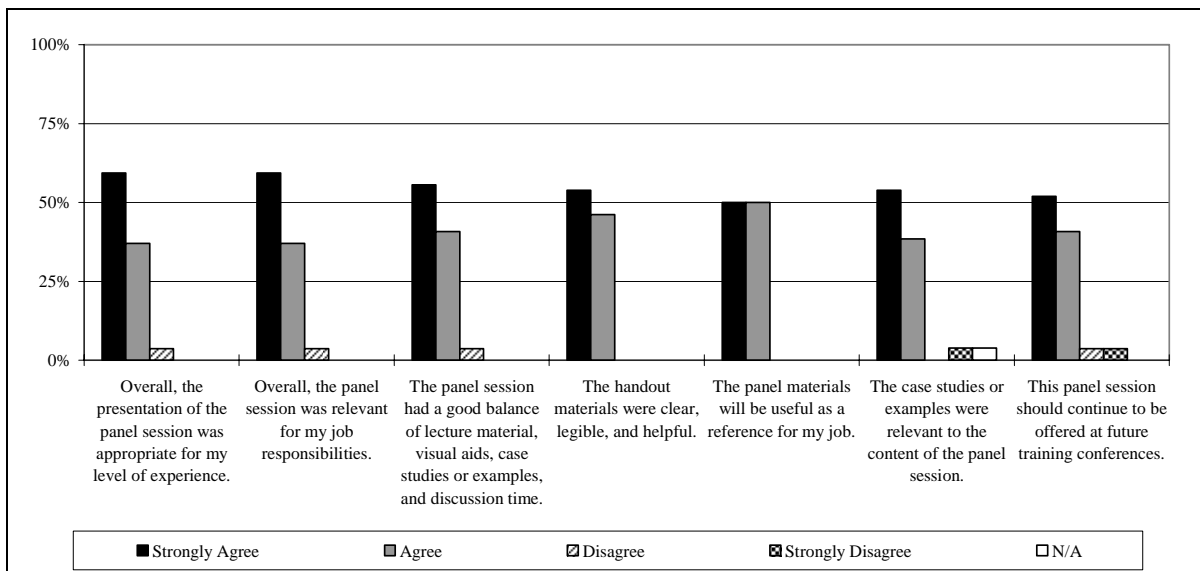
This panel session described recent research and development efforts by the DoD on the treatment of emerging contaminants. DoD's SERDP and the ESTCP have been funding research and development on several emerging contaminants over the past several years, including 1,4-dioxane, N-nitrosodimethylamine (NDMA), perchlorate, and 1,2,3-trichloropropane. Early work on understanding microbial degradation of perchlorate has led to several field demonstrations to validate in situ biotreatment technologies. Recent work on perchlorate is focusing on development of innovative technologies for wellhead treatment in drinking water applications. In 2005, SERDP initiated research into understanding the degradation of 1,4-dioxane, NDMA, and 1,2,3-trichloropropane. Research to date is demonstrating the conditions most favorable to degradation of these contaminants. Research and development under SERDP is expected to lead to innovative technologies for treatment of ground water contaminated with these emerging contaminants. During this presentation, a summary of the recent work on perchlorate was presented, followed by a discussion of preliminary results from the research on 1,4-dioxane, NDMA, and 1,2,3-trichloropropane. The target audience was RPMs and consulting engineers.

### Participation and Average Grade

No. of Preregistrants	No. of Students Who Signed Session Roster	Number of Evaluation Forms Submitted	Average Grade
34	27	27	4*

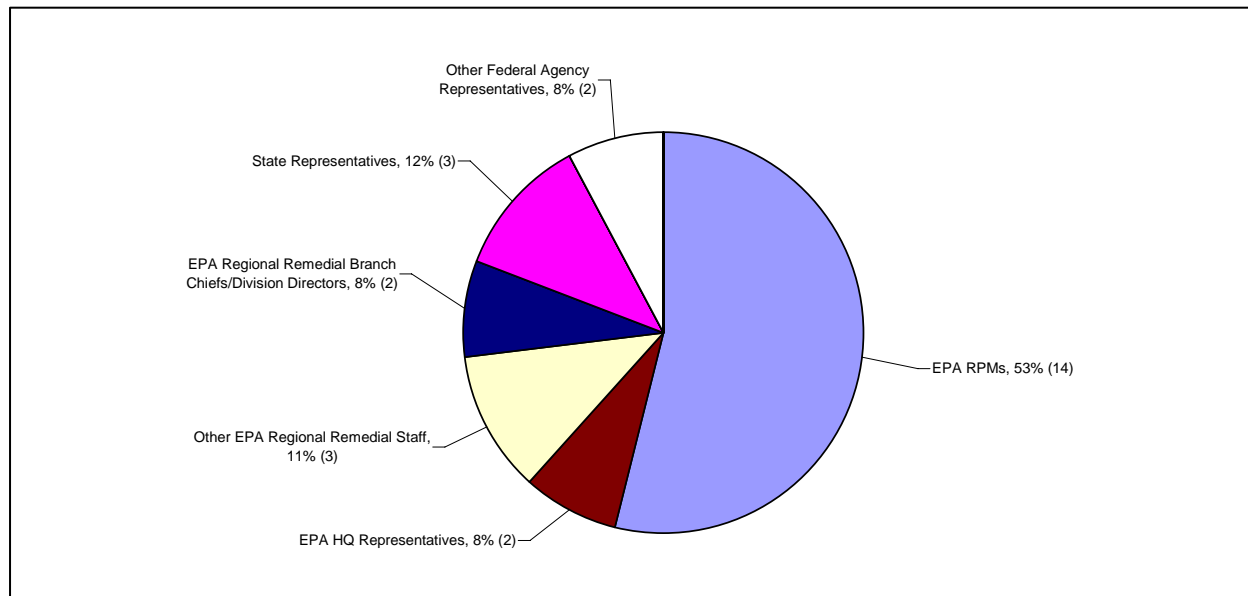
\* The grade displayed is the average of the grades identified on the evaluation forms based on a 5-point scale. The average is calculated by rounding the raw average to the nearest integer (for example, 3.6 rounds to 4).

### Summary of Evaluation Results for the DoD's Perspective on Development of Innovative Approaches for Treatment of Emerging Contaminants Panel Session



The pie chart below illustrates the percentages of students for the panel session by job title. EPA RPMs represented 53 percent of the students.

**Students by Job Title for the DoD's Perspective on Development of Innovative Approaches for Treatment of Emerging Contaminants Panel Session**



Summarized below are the written comments provided on the evaluation forms. Similar observations have been combined and paraphrased. Comments submitted by a single respondent are recorded below.

**Comments on relevance to job responsibilities and experience level**

- A little more chemistry than I am used to, but appropriate for RPMs.
- I deal with some of these contaminants.

**Comments on course content**

Shorten

- Perchlorate discussion and occurrence. (*Six responses*)
- Treatment options and more contaminants.

Lengthen

- Lengthen course to include more contaminants and questions and answer time.

Add

- Other contaminants. (*Two responses*)

**Comments on instructional methods and materials**

- One EPA class student recommended that the instructors revise their research report to present the pros and cons of the engineering and scientific data for MNA applied at specific sites.
- No discussion. I was anticipating more of a "panel," but I benefited from the presentation.
- Suggest that the instructors limit the amount of information placed on the slides (e.g., have no more than 4 lines of information on 1 slide).
- Need handouts. Need a little more detail.
- Thought they might touch on more contaminants, but ones discussed were appropriate.
- Very good overview and presentation of current data on science of feedback.

- I recommend that the instructors not include too many figures (illustrations) in one slide. Increase the font size to replace some of the small illegible print on some of the slides; and place only one slide to a page. This will prevent the slides from being too busy.
- Overall, a very interesting, relevant, and technically engaging presentation! Thank you!
- Dr. Hatringer was very knowledgeable and was a very good speaker. He was able to present the research results in a very clear and concise manner.
- The session covered material not germane to the proposed topic. The session was supposed to cover the innovation approaches for treatment of emerging contaminants; however, one third of the time was spent discussing other potential sources of perchlorate contamination.
- Excellent overview. Next time more case studies and examples. Maybe more time.
- Please get information right: Maine guideline is now 32 parts per billion. 1,4-Dioxane is found with TCE (Natek SSC NPL site). Treatment with urban water quality flow also!

#### **Comments on course name and abstract expectations**

- I would have given this session a 5 if the abstract were more indicative of the material.
- Slightly misleading; more characterization than treatment emphasis. Course has good information, but not what I expected. (*Two responses*)
- Not enough focus on the treatment.
- I expected discussion of more contaminants; much of the talk was just on perchlorate, which was fine.
- Panel was more specific.

#### **Comments on recommending course to colleagues**

- For those dealing with ClO<sub>4</sub>, NDMA, and 1,4-dioxane.
- Could not answer site specific questions.
- More case studies or field projects.
- If they deal with DoD or those contaminants.

#### **Comments on additional/new course offerings for the future**

- Well attended; well-spoken presenters; good participation in question and answer session.
- Needs updated or new informative cases.
- Should maybe bring in additional examples of treatment.

#### **Comments regarding the moderator**

- Fine. (*Two responses*)
- The moderator was excellent.
- Allowed self-introduction.
- The moderator was articulate and did an excellent job introducing the session presenters.

#### **Summary of the Session**

Mary Cooke submitted the summary for this session, which is recorded below.

The objective of this panel session was to describe the DoD's recent research and development on treatment of emerging contaminants. The DoD's SERDP and the ESTCP have been funding research and development on several emerging contaminants over the past several years, including: 1,4-dioxane; NDMA; perchlorate; and 1,2,3-trichloropropane. The majority of this presentation was focused on perchlorate and the field demonstrations utilized by SERDP and the ESTCP to validate in situ biotreatment technologies.

The presentation was straightforward and the panelists supplied the audience with copies of the slides and additional general information on emerging contaminant fact sheets and a cost and performance report. The course was billed as DoD's perspective and that is what was delivered. Comments and questions centered on general areas of disagreement between DoD and EPA (MCL issues, how clean is clean, etc.). Nothing required specific follow-up. The question was also raised as to how one goes about getting a contaminant on the emerging contaminant watch list. The RPM was directed to speak to her DoD counterpart or to contact Mary Cooke, FFRRO.

## DoD's Perspective on Recent Advances in the Management and Remediation of DNAPL Source Zone

Thursday, May 24, 10:30 a.m. to 12:00 p.m.

Moderator: Jim Cummings, EPA OSRTI  
 Panelists: Andrea Leeson, SERDP  
 Charles Newell, Groundwater Services, Inc.  
 Thomas Sale, Colorado State University

The objective of this panel discussion was to provide the DoD's recent information on the management and remediation of DNAPL source zones. The DoD's SERDP and ESTCP have been funding research and development on DNAPL source zones over the past several years. This discussion covered the results from a recent SERDP workshop. The workshop was designed to identify the current state of DNAPL site management, and the most pressing research and development needs. Recent progress in this area has led to advancements in the field that DoD believes will enhance decision-making by utilizing current knowledge regarding best practices for management of chlorinated solvent releases.

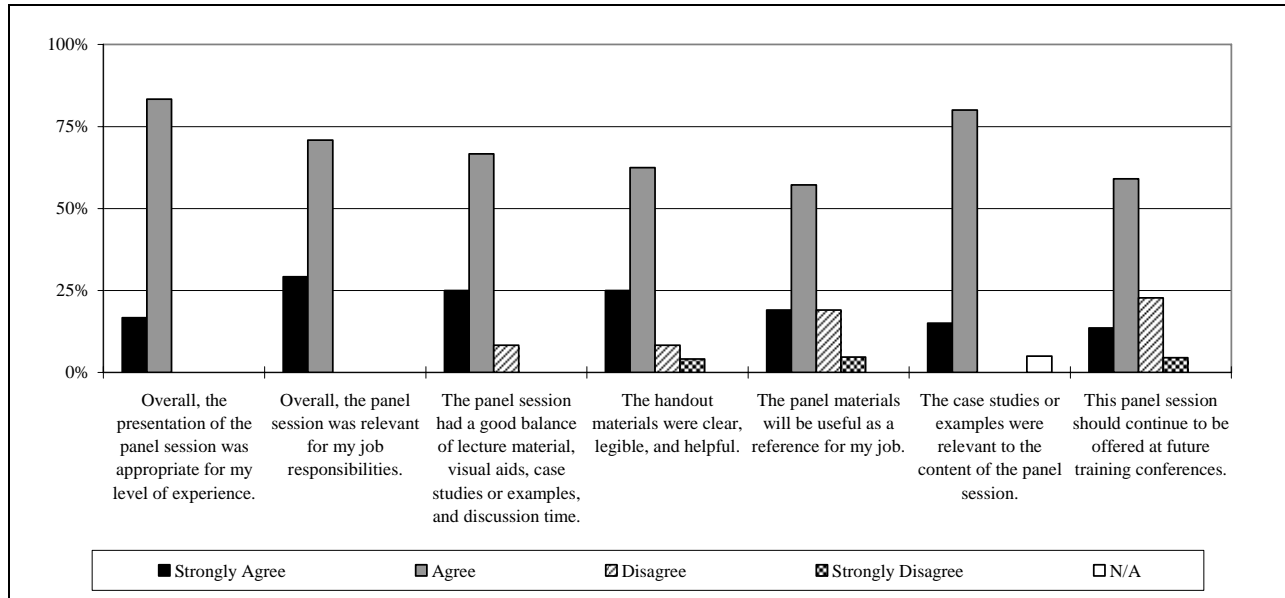
The DoD is in the process of finalizing their guidance on selecting remedies for chlorinated solvent releases that includes access to frequently asked questions. This panel presented the status of the draft DoD Decision Guide. The draft document is scheduled for peer review during 2007 and release in 2008. It is intended as a guide to help DoD's RPMs make decisions regarding the management of chlorinated solvent sites. This presentation was intended to brief EPA's RPMs on the draft document and solicit input prior to finalizing it for external peer review. Contributors to the draft document include researchers and practitioners from organizations such as Arizona State University (Paul Johnson, Ph.D.), Colorado State University (Tom Sale, Ph.D.), Integrated Science and Technology (Rob Hinchee, Ph.D.), and Groundwater Services, Inc. (Chuck Newell, Ph.D.). Materials provided included: the SDERP/ESTCP DNAPL workshop report (<http://docs.serdp-estcp.org/viewfile.cfm?Doc=DNAPLWorkshopReport.pdf>); Frequently Asked Questions (scheduled for publication in April 2007); and a draft copy of the Remedy Selection Guidance (scheduled for publication in June 2007). The target audience was RPMs and consulting engineers.

### Participation and Average Grade

No. of Preregistrants	No. of Students Who Signed Session Roster	Number of Evaluation Forms Submitted	Average Grade
51	44	26	4*

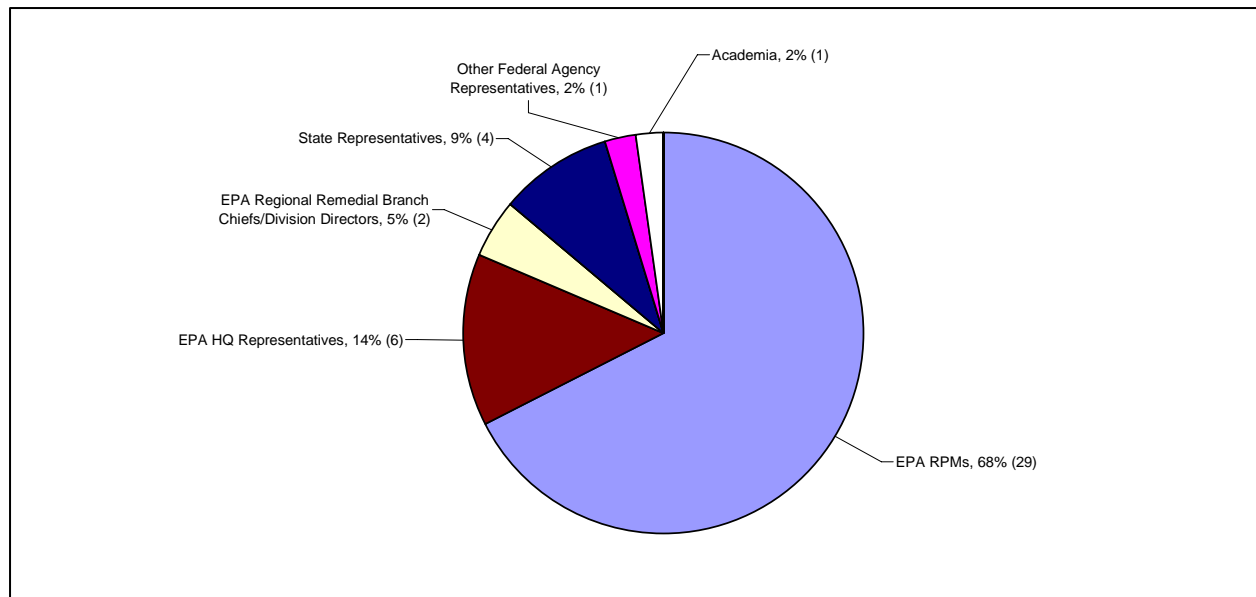
\* The grade displayed is the average of the grades identified on the evaluation forms based on a 5-point scale. The average is calculated by rounding the raw average to the nearest integer (for example, 3.6 rounds to 4).

**Summary of Evaluation Results for the DoD's Perspective on Recent Advances in the Management and Remediation of DNAPL Source Zone Panel Session**



The pie chart below illustrates the percentages of students for the panel session by job title. EPA RPMs represented 68 percent of the students.

**Students by Job Title for the DoD's Perspective on Recent Advances in the Management and Remediation of DNAPL Source Zone Panel Session**



Summarized below are the written comments provided on the evaluation forms. Similar observations have been combined and paraphrased. Comments submitted by a single respondent are recorded below.

### **Comments on relevance to job responsibilities and experience level**

- The documents presented showed an inappropriate message to RPMs in the room.
- Sounds like propaganda.
- I am questioning the point of allowing DoD to prepare materials and use the EPA NARPM logo.

### **Comments on course content**

#### Shorten

- Less slides, more discussion.
- Questions guide.

#### Add

- EPA views on DNAPL.

### **Comments on instructional methods and materials**

- Too much material. (*Three responses*) This led to a lot of skimming over significant matter.
- Misleading.
- Qualify data or reports from navy facilities on success of removal source treatment. We need real data.
- Some of the material in the handouts was controversial and could be used as a tool to fight EPA, not assist us.
- Did not hear DoD's perspective.
- Really should have been a point-counterpoint. EPA position versus DoD position. Not the DoD position alone. (*Two responses*)
- Need more time. (*Two responses*)
- I was surprised to find DoD representatives at a panel titled "DoD's perspectives."
- This was a very good discussion even though EPA does not agree with the material.
- There were too many instances where documents presented did not present an accurate reflection of what is going on in the world of science. They take negative situations and still portray that remedies might slightly improve cleanup at sites where there are other examples in the literature that show that remedies are much more successful. Someone at EPA should review and comment on these DoD documents because their presentation of the science is incomplete. (*Two responses*)
- I expected to hear about DoD policy and perspective of treatment of DNAPL based upon real data. (i.e., treating ground water, source DNAPL, or low permeable clays with residual source). We need a site study to document if this works and how well.

### **Comments on recommending course to colleagues**

- With caution to balance this with other perspectives.
- Possibly.
- Recommend more "open" discussion of DNAPL but not in writing.

### **Comments regarding the moderator**

- Jim C: Good start. Subtly moved chairs, etc. which were in presenter's way. Interjected as needed. Allowed some discussion over controversial slides then moved discussion along.

### **Comments on additional/new course offerings for the future**

- The DoD position on DNAPLs is not what RPMs really need.

### **Summary of the Session**

The moderator summary for this session was not provided.

## Federal Facilities

Monday, May 21, 10:15 a.m. to 12:00 p.m.

Moderator: Monica McEaddy, EPA FFRRO  
 Panelists: Gail Cooper, EPA FF Enforcement Office  
 Monica McEaddy, EPA FFRRO  
 John Reeder, EPA FFRRO

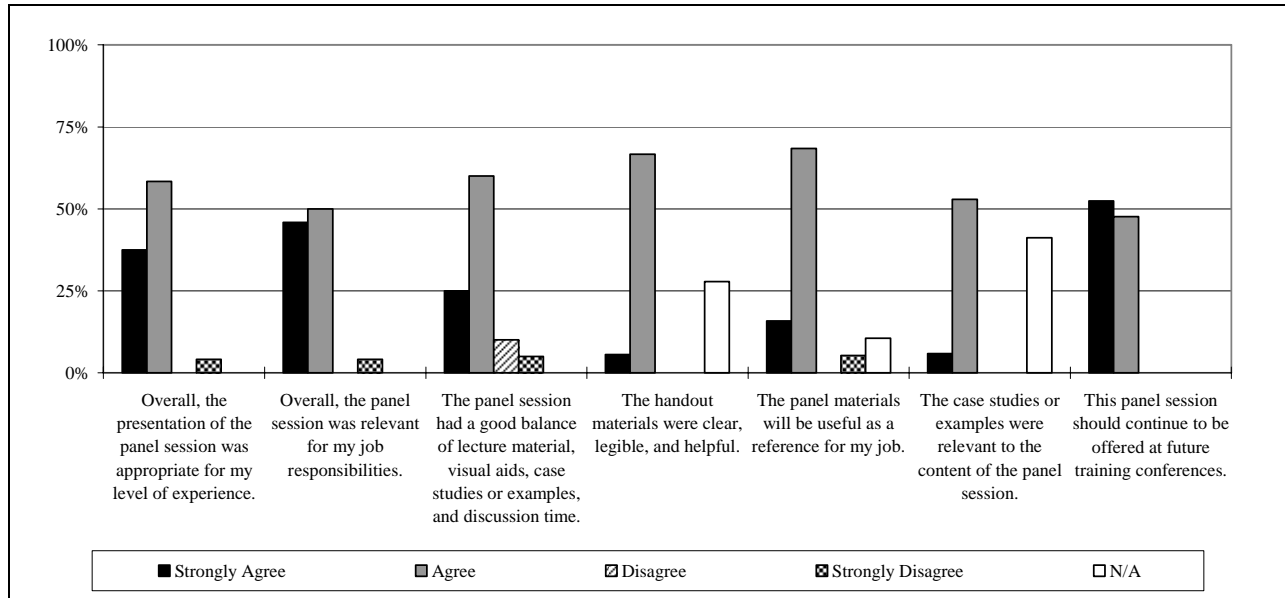
The *Federal Facilities* (FF) panel session offered an update on current initiatives and “hot” topics that affect FF sites. Managers from FFRRO provided insights into current activities and issues in the program, including updates on emerging contaminants, the ROD improvement project, the FF Docket, and the Base Realignment and Closure program. Time was also set aside for discussion among students about issues and concerns they are experiencing.

### Participation and Average Grade

No. of Preregistrants	No. of Students Who Signed Session Roster	Number of Evaluation Forms Submitted	Average Grade
39	34	24	4*

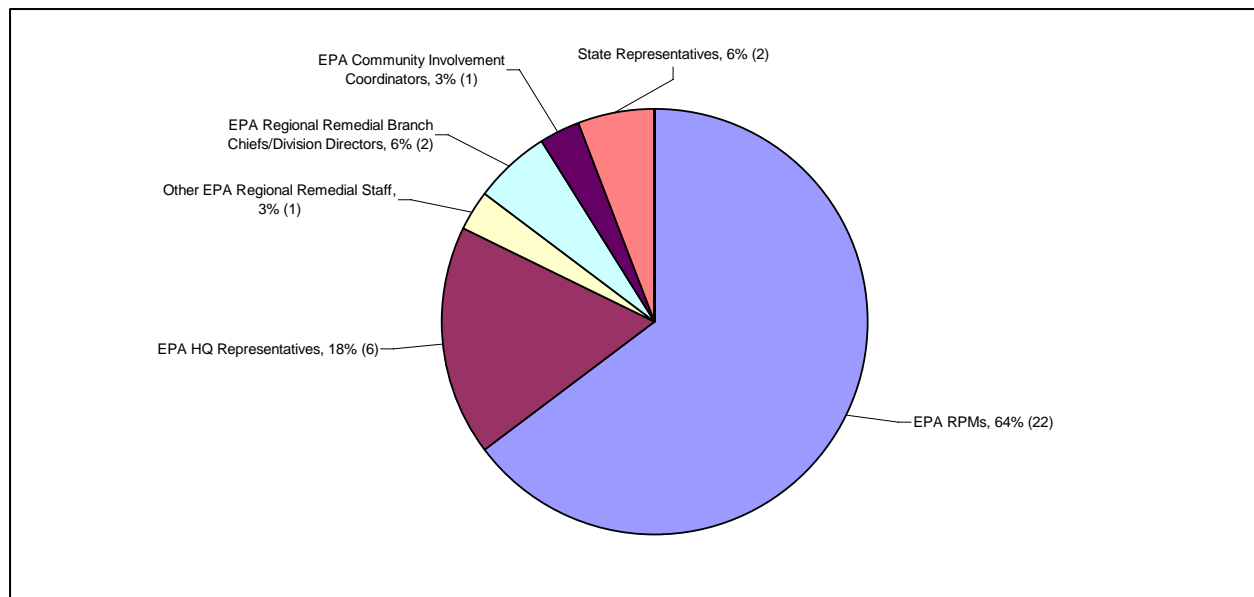
\* The grade displayed is the average of the grades identified on the evaluation forms based on a 5-point scale. The average is calculated by rounding the raw average to the nearest integer (for example, 3.6 rounds to 4).

### Summary of Evaluation Results for the Federal Facilities Panel Session



The pie chart below illustrates the percentages of students for the panel session by job title. EPA RPMs represented 64 percent of the students.

**Students by Job Title for the Federal Facilities Panel Session**



Summarized below are the written comments provided on the evaluation forms. Similar observations have been combined and paraphrased. Comments submitted by a single respondent are recorded below.

#### **Comments on relevance to job responsibilities and experience level**

- Very credible for Mr. Reeder being in the job three weeks.
- More of an issue raising session than an answer oriented session.

#### **Comments on instructional methods and materials**

- Good listening by FFRRO.

#### **Summary of the Session**

Monica McEaddy submitted the summary for this session, which is recorded below.

John Reeder, Director, FFRRO, provided an update on issues facing the FF program. The audience included mostly federal facility RPMs.

John asked the audience to focus on four questions:

1. What do you need from Headquarters to succeed?
2. What obstacles are you facing at your sites to reach construction completion?
3. What do you perceive are the priorities for the FF program?
4. Suggestions for policies and regulations that need to be developed by FFRRO.

Related to DOE sites, the RPMs expressed concern that there is a severe lack of dialogue with EPA and DOE on cleanup issues. There is a need for EPA and DOE to talk. The Regions are getting pressure from DOE to re-negotiate the milestones in the Federal Facility Agreement because of lack of funding. Also, RPMs expressed concern with the MMRP and the impact the program has on meeting construction completion for their sites. Some RPMs suggested that we may need to redefine construction completion or may need to track it differently than in the past. The RPMs suggested that Headquarters can help more by issuing joint policies with DOE. The RPMs suggested that the letters to all of the federal agencies on cross program measures would help them in the field to reiterate the importance of program targets. Headquarters should do more of issuing policies and guidance based on our interpretation of the issue.

## Institutional Controls Update

Thursday, May 24, 8:45 a.m. to 10:15 a.m.

Moderators: Sheri Bianchin, Region 5  
Dante Rodriguez, Region 9

Panelists: Michael Bellot, EPA OSRTI  
Sheri Bianchin, Region 5  
Michael Hendershot, Region 3  
Derek Matory, Region 4  
Dante Rodriguez, Region 9  
Gregory Sullivan, Office of Site Remediation Enforcement

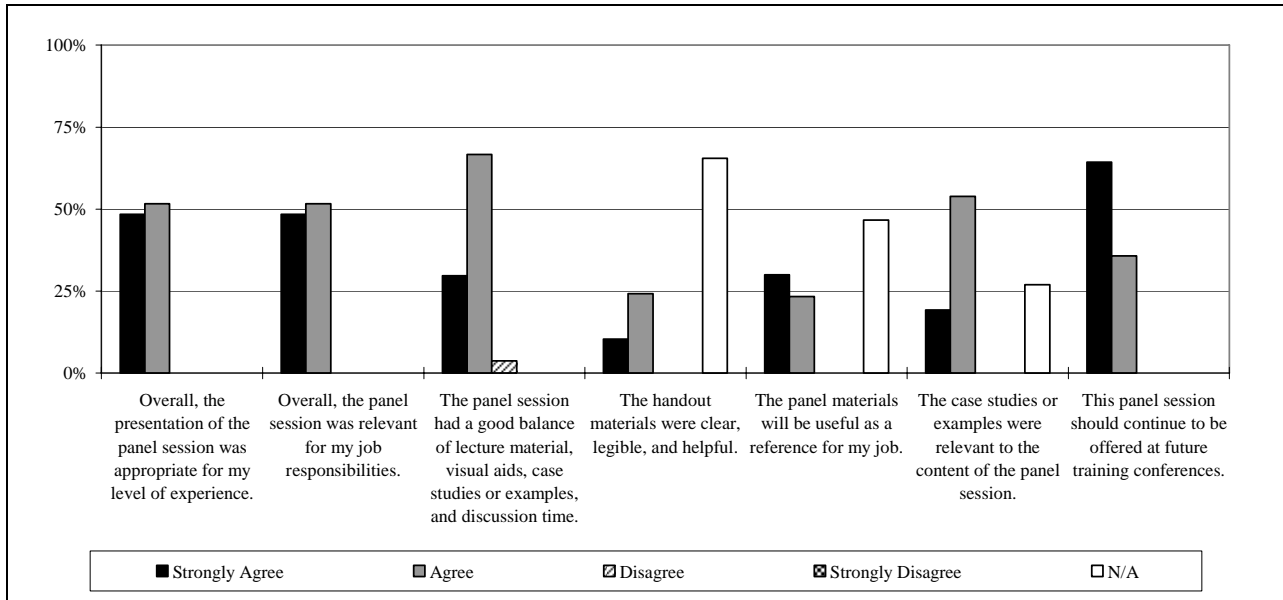
ICs are non-engineered components of a remedy. Examples of ICs include deed restrictions, local city ordinances, restrictions on ground water use, base-use plans, and fishing bans. The use of ICs is often a key component of Superfund remedies. If a site is not cleaned up to unrestricted use levels, as specified in the site plan, an IC is required to ensure that the restricted uses do not occur. The national IC Workgroup meets monthly to track IC-related issues, share information, and identify solutions to the often vexing IC issues that face Superfund site managers. The group holds an annual roundtable workshop in April with its partner agencies and associations that also deal with IC implementation issues. Attendees at the annual workshop raise the challenging issues of the day for discussion and attempted resolution. NARPM members who serve on the IC Workgroup, along with national experts from around the country, brought these issues to the NARPM conference to share their experiences with Superfund RPMs who may be facing similar issues. Students were invited to come to the panel session, present their IC issues, and receive some expert advice and valuable feedback.

### Participation and Average Grade

No. of Preregistrants	No. of Students Who Signed Session Roster	Number of Evaluation Forms Submitted	Average Grade
47	48	33	4*

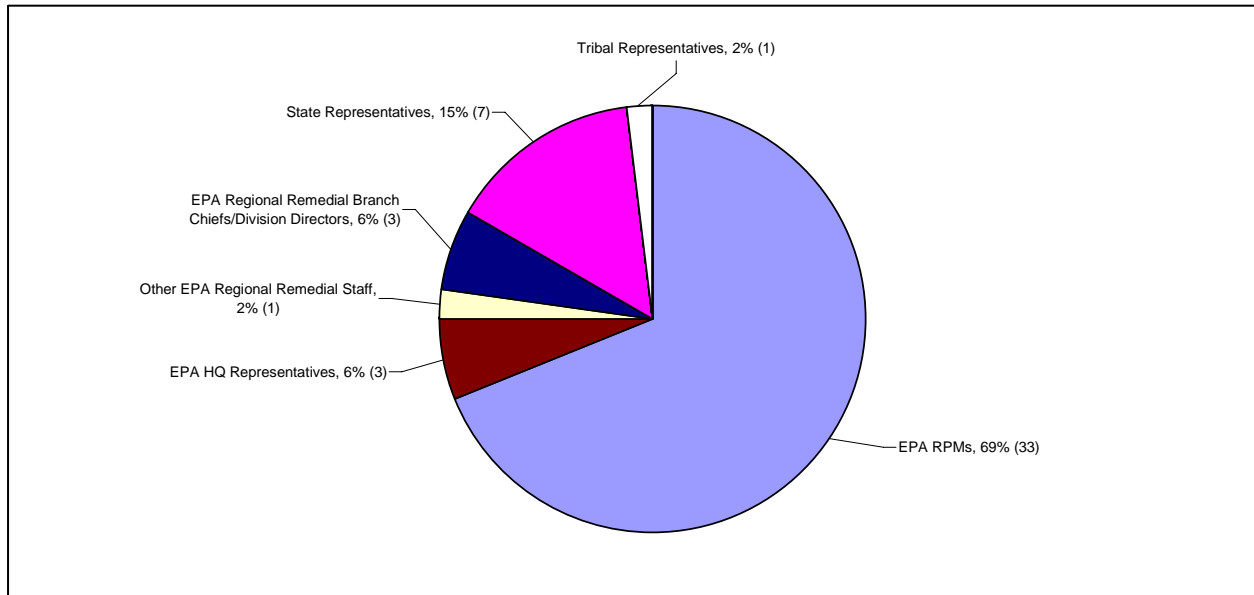
\* The grade displayed is the average of the grades identified on the evaluation forms based on a 5-point scale. The average is calculated by rounding the raw average to the nearest integer (for example, 3.6 rounds to 4).

**Summary of Evaluation Results for the Institutional Controls Update Panel Session**



The pie chart below illustrates the percentages of students for the panel session by job title. EPA RPMs represented 69 percent of the students.

**Students by Job Title for the Institutional Controls Update Panel Session**



Summarized below are the written comments provided on the evaluation forms. Similar observations have been combined and paraphrased. Comments submitted by a single respondent are recorded below.

**Comments on course content**

**Lengthen**

- Four to eight hour session on ICs; walk through real-life issues.

Add

- Experience on water and sediment sites. Right now the focus is all on restrictions for the land.
- FF.
- What are the RPM responsibilities for updating the database?

**Comments on instructional methods and materials**

- Good real-life discussion using audience questions.
- It was all questions and answers, but it worked.
- No case studies presented formally. People brought up their own examples and then the panel brought up other examples.
- Panel discussion.
- Suggest that visual aids be used to illustrate case studies.
- Discussion was great.
- Handouts not needed.
- No representation for FF.
- Very good panel. Topic itself could use some case studies. Maybe as separate sessions?
- We need more assistance and discussion on fund-lead sites where there are no PRPs to implement ICs. Also, five year reviews are not the answer. That is not being pro-active in dealing with this issue. We should be pro-active about this problem and think through solutions.
- Initial questions that panel posed itself were a good starting point.
- Could there be a request from RPMs of examples of easements and other ICs being implemented for next years course? Discussion of how the examples have worked or failed would be very helpful.
- Excellent!
- Lengthen to address RPM questions and problems.
- The focus on ICs at Headquarters. Needs to turn to how we can get the legislature to change and fund ICs long term for state and locals. Until the funding issue is addressed, there will always be a problem.

**Comments on recommending course to colleagues**

- Good update. Suggest this forum to be given to all regional IC coordinators and Headquarters.

**Comments on additional/new course offerings for the future**

- Handout guidance discussed.
- This is an ongoing important issue.
- This needs to be a national forum.

**Comments regarding the moderator**

- Both did a great job. Liked the "dating game." Liked introductions.
- Great moderators! (*Two responses*)
- Dante and Sheri did an excellent job facilitating the discussion and spreading the discussion across the entire panel.
- The moderators did an excellent job facilitating the discussions.

**Summary of the Session**

Dante Rodriguez submitted the summary for this session, which is recorded below.

The ICs Update panel consisted of a legal and a program person from Headquarters and from regions, moderated by two RPMs. All students are members of the national IC workgroup. Mike Bellot is the program lead for IC issues in HQ, and Greg Sullivan is the legal lead. Mike Hendershot is the Region 3

legal IC coordinator, and Derek Matory, former RPM and now section chief of an RPM section, is the Region 4 program IC coordinator. The moderators, Dante Rodriguez and Sheri Bianchin, are both program IC coordinators for their respective regions.

The panel solicited questions from the audience in order to address topics of concern to panel attendees. Those topics included how to maintain effective ICs in place for the long term, when to rely on governmental controls rather than environmental covenants, and funding sources. EPA's IC tracking system was discussed. The difference between a deed notice and a deed restriction (restrictive covenant) were discussed.

Some of the students wanted to know how to continue the dialogue or how to get site-specific issues addressed in the future. The panel encouraged the students to bring the issues to the attention of their regional IC coordinators for their input and someone who could bring issues up on the monthly national workgroup calls for follow-up.

The session was a controlled free-flowing discussion that examined the issues raised by attendees from all perspectives, engaging all four panelists, both moderators, as well as the attendees.

## Monitored Natural Attenuation

Monday, May 21, 1:15 p.m. to 2:45 p.m.

Moderator: Matthew Charsky, EPA Office of Superfund Remediation and Technology Innovation  
 Panelists: Matthew Charsky, EPA Office of Superfund Remediation and Technology Innovation  
 Robert Ford, EPA Office of Research and Development

The MNA panel session provided an update on the selection and implementation of MNA as a response action for sites under CERCLA remedial authority. Historically, MNA has been selected at more than 200 sites on the NPL as either the sole response or in combination with other response actions to address ground water contamination. However, limited information has been collected on the performance of MNA actions. The OSRTI and the ORD are coordinating efforts to close this data gap.

Today, the Superfund program is being challenged to show progress and results. Parties within EPA and outside the agency are looking for data to show that remedies are performing as designed. This session:

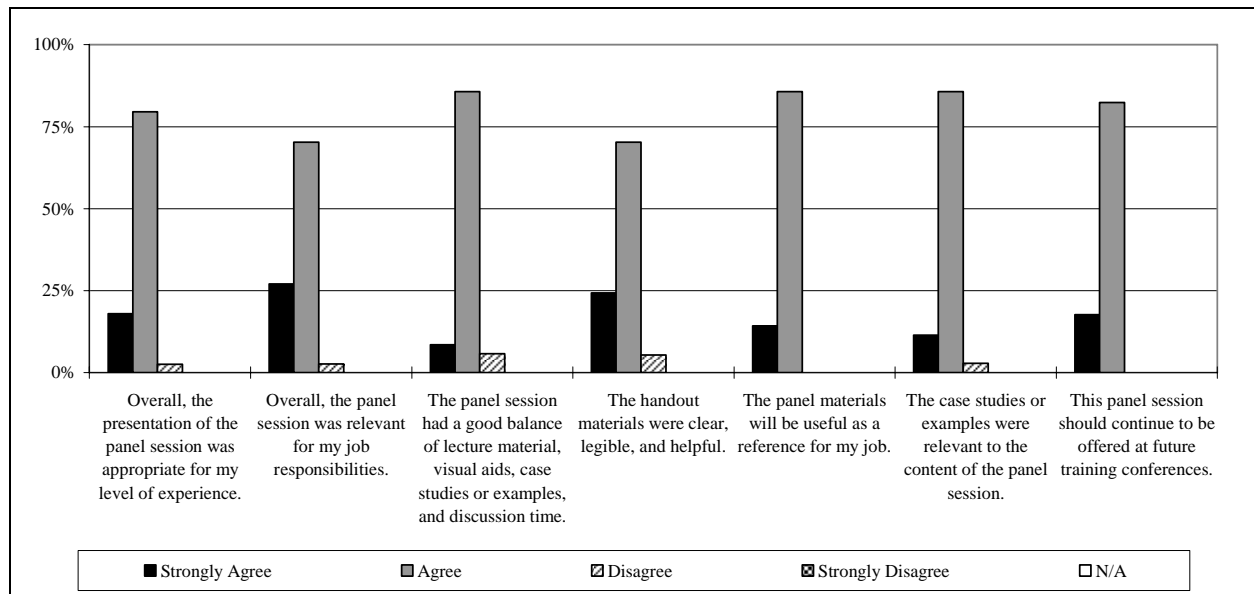
- Provided RPMs with a national summary of MNA policy.
- Rolled out ORD’s new documents, “MNA for Inorganics.”
- Presented examples of the use of MNA and success stories.
- Provided RPMs with an opportunity to shape future MNA.

### Participation and Average Grade

No. of Preregistrants	No. of Students Who Signed Session Roster	Number of Evaluation Forms Submitted	Average Grade
76	65	39	4*

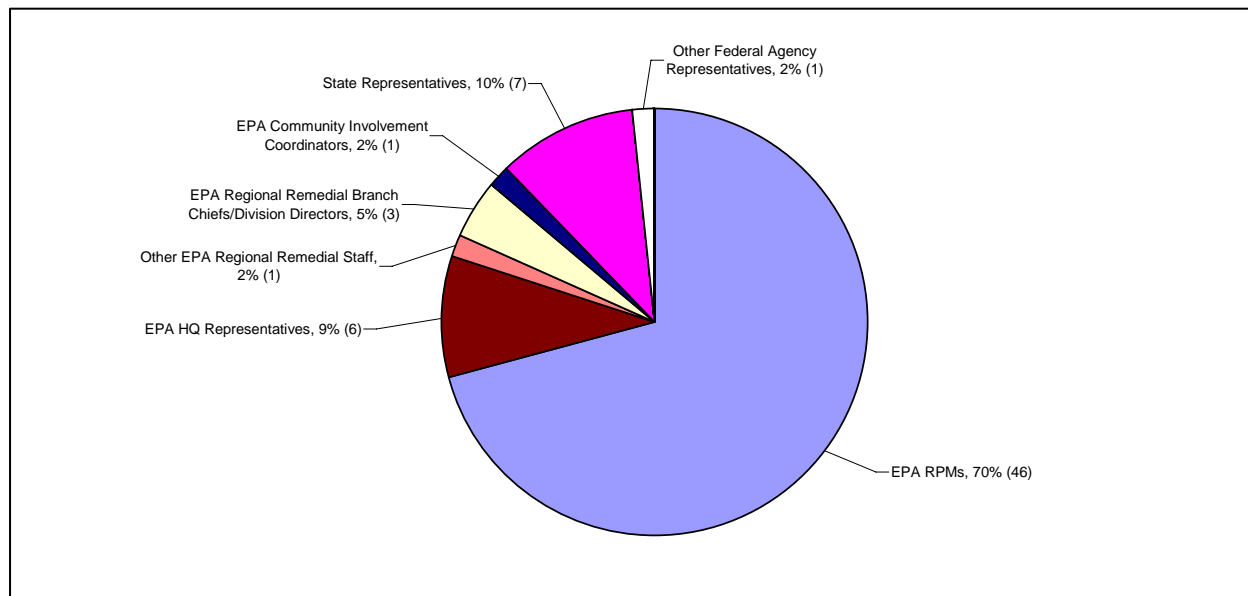
\* The grade displayed is the average of the grades identified on the evaluation forms based on a 5-point scale. The average is calculated by rounding the raw average to the nearest integer (for example, 3.6 rounds to 4).

### Summary of Evaluation Results for the Monitored Natural Attenuation Panel Session



The pie chart below illustrates the percentages of students for the panel session by job title. EPA RPMs represented 70 percent of the students.

**Students by Job Title for the Monitored Natural Attenuation Panel Session**



Summarized below are the written comments provided on the evaluation forms. Similar observations have been combined and paraphrased. Comments submitted by a single respondent are recorded below.

#### **Comments on relevance to job responsibilities and experience level**

- Too technical and fast.
- Was looking forward to more details on how to monitor MNA - case specific studies, all parameters monitored, etc.
- Could have been more technical.

#### **Comments on course content**

##### Lengthen

- Discussion of importance of characterization.
- Case studies.
- Perhaps having this discussion after a longer more detailed session would help.

##### Add

- Examples of MNA for chlorinated solvents.

#### **Comments on instructional methods and materials**

- Could use more discussion.
- One of the speakers was via phone. Made it difficult to follow. (*Five responses*)
- Suggest more technical details of monitoring, assessment of performance of MNA.
- More variety of examples would be good.
- Too heavy on organics.
- Success stories are helpful.
- Mainly lecture. Not enough time for discussion.
- Would have liked more detail in the case studies.

- Color is hard to follow in black and white.
- Some of the graphs and text were too small to read. (*Two responses*)
- The tele-presentation was oriented to sample collection methods.
- I was unaware that focus was on organics.
- Needed to be at least a half day to do this topic justice.
- Bioremediation or chemical oxidation as an initial step, prior to MNA as a finishing step.
- A challenge listening to a black box although the sound was clear and strong. May have taken another training class if I had known the instructor would not be teaching in person.
- Thought the ORD presenter did a good job even as a "remote" presenter. Speaker phone was clear. Matt did a good job advancing his slides. Need more time for questions and answers.

#### **Comments on recommending course to colleagues**

- It is hard to get excited about a tele-presentation.
- Yes to RPM, no to the others.
- If contemplating using MNA as site.
- Great introduction as a new RPM.

#### **Comments on additional/new course offerings for the future**

- Would offer course, but probably should not repeat topic every year.
- Important subject; maybe different format or time.
- Fuller half day training course when MNA technical documents are done.
- Another focus rather than inorganics.
- As a panel, not as a lecture.
- I think it will continue to become more relevant.

#### **Comments regarding the moderator**

- Probably could have gone straight through rather than taking 10 minute break.

#### **Summary of the Session**

The moderator summary for this session was not provided.

## NARPM Vapor Intrusion Open Panel Session: Revitalization of EPA National Vapor Intrusion Workgroup

Thursday, May 24, 8:45 a.m. to 10:15 a.m.

Moderator: Alana Lee, Region 9  
 Panelists: David Bartenfelder, EPA OSRTI  
 Raphael Cody, Region 1  
 Helen Dawson, Region 8  
 Alana Lee, Region 9  
 Michael Sivak, Region 2

In this panel session you were able to ask those complicated VI questions and discuss those difficult VI issues you were told to save for later.

This session discussed the revitalization and redevelopment of a National VI Workgroup. The workgroup provided a forum for RPMs and others to share lessons learned, ask questions of each other, discuss VI issues and news, hear about the latest guidance regions are using, and provide a network for information exchange. Students were asked if revitalizing this workgroup is a good idea, who would be interested in participating, and how often. A few questions for students to ponder included:

- Do we need to develop regional or national “best practices” in the interim while no revised OSWER VI guidance is in place?
- Do we have additional training needs or possible research ideas?

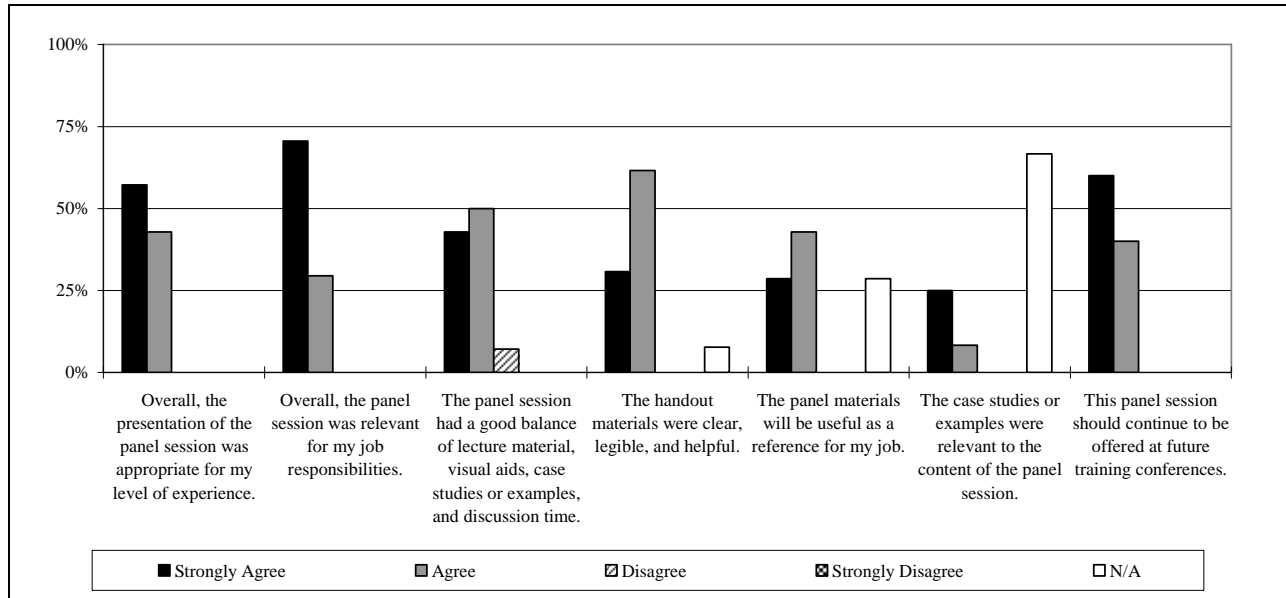
Students were encouraged to come to this panel session and bring their ideas, suggestions, and other VI topics that RPMs and other VI enthusiasts would like to hear about and discuss.

### Participation and Average Grade

No. of Preregistrants	No. of Students Who Signed Session Roster	Number of Evaluation Forms Submitted	Average Grade
31	25	18	4*

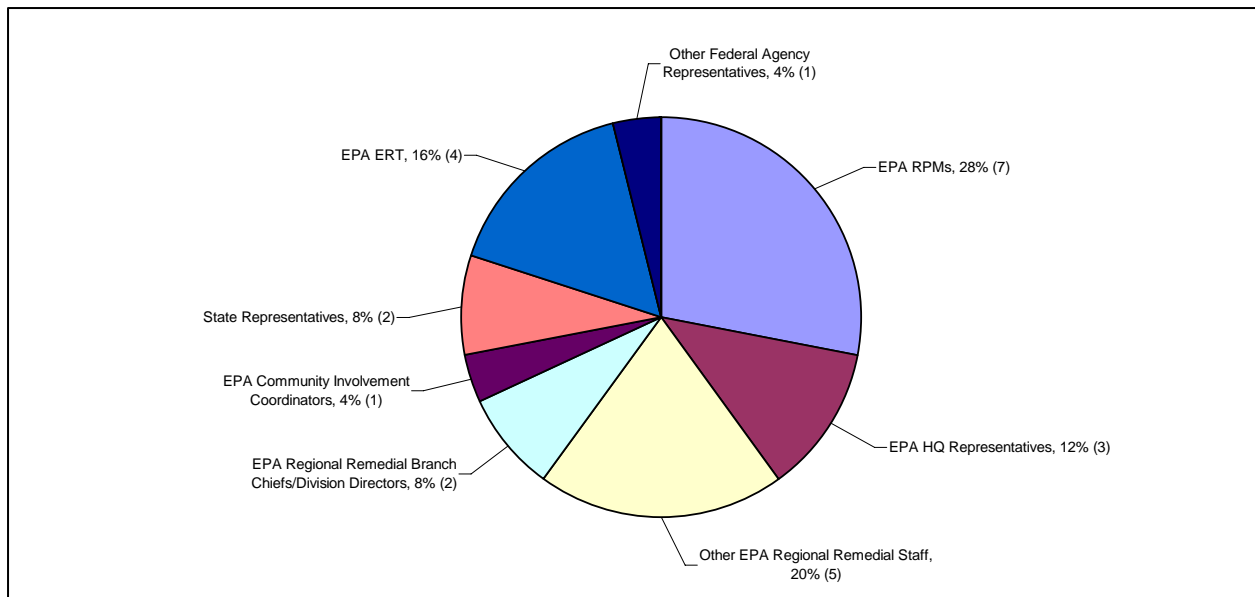
\* The grade displayed is the average of the grades identified on the evaluation forms based on a 5-point scale. The average is calculated by rounding the raw average to the nearest integer (for example, 3.6 rounds to 4).

**Summary of Evaluation Results for the NARPM Vapor Intrusion Open Panel Session: Revitalization of EPA National Vapor Intrusion Workgroup Panel Session**



The pie chart below illustrates the percentages of students for the panel session by job title. EPA RPMs represented 28 percent of the students.

**Students by Job Title for the NARPM Vapor Intrusion Open Panel Session: Revitalization of EPA National Vapor Intrusion Workgroup Panel Session**



Summarized below are the written comments provided on the evaluation forms. Similar observations have been combined and paraphrased. Comments submitted by a single respondent are recorded below.

### **Comments on instructional methods and materials**

- No case studies presented.
- Discussion reflected real sites.
- Should have included information on open discussion of the issue (VI).
- Informal sharing.
- Clearly this topic is important.
- Did not utilize PowerPoint handout. (*Two responses*)
- Interesting conversation.
- The handout really gets you thinking.

### **Comments on recommending course to colleagues**

- If interested or involved in VI.
- If VI is an issue at their site.

### **Comments on additional/new course offerings for the future**

- VI workgroup should be revitalized.
- Only if a workgroup is formed.
- Need a panel with presentations to expand on VI. (*Two responses*)
- I would like more basic VI training. (*Two responses*) I am a new RPM and there was nothing offered at an introductory level and I was getting way over my head. I hope I learned something but I am just starting to learn about VI.

### **Comments regarding the moderator**

- Good discussion but no facilitation so discussion topics were all over the place.

### **Summary of the Session**

Alana Lee submitted the summary for this session, which is recorded below.

The panel members and students shared some of their VI issues and concerns. Students agreed that revitalization of the EPA National VI workgroup was a good idea. Suggestions on potential work products of the group included fact sheets on lessons learned for the following: Indoor Air Sampling for VI; Soil Gas Sampling for VI; Ground Water Sampling for VI; Sub-slab Soil Gas Sampling for VI; and Mitigation Measures for VI (the latter being addressed by the Engineering Forum). In addition, several students recommended VI assessments in the context of the Superfund process (pre-ROD, post-ROD, five-year reviews, redevelopment), and stated that recommendations on how to interpret VI data would be helpful. Ideas on what the workgroup could provide included: serve as a forum for VI assessors and project managers to discuss VI issues and news; share lessons learned; hear about the latest guidance regions and states are using, discuss site-specific VI issues; VI-specific issues; and possibly ranking VI sites. Students from each region and several states volunteered to be the initial contact person for future EPA National VI workgroup meetings. Administrative support and logistics could be coordinated through Headquarters, but EPA National VI workgroup would likely be lead by regional representatives.

## Take Charge! – Improving Your Document Management Skills

Monday, May 21, 10:15 a.m. to 12:00 p.m.

Moderator: Marla E. Wieder, Region 2  
Panelists: Damian Duda, Region 2  
Dion Novak, Region 5  
Marla E. Wieder, Region 2

What are the biggest challenges RPMs and attorneys face with files and records management (electronic and hard copy), data collection, and database management? This panel session examined data and file management issues that confront RPMs and attorneys on a regular basis. The panel members also solicited input from students on how to better manage site records. The primary goal of the session was to develop a simple guide and systematic approach, including useful hints and techniques, to assist EPA staff in improving records management. Students were given an easy-to-use handout that provided tips on how to resolve some of the main issues with e-mail and electronic document retention by establishing a level of consistency in the overall files and records management system. The panel also examined EPA's Enterprise Content Management System (ECMS) and its effect on e-mail management.

The full extent of electronic discovery can be overwhelming, ranging from e-mail, hard drives, and databases to hard copy reports. Common complaints involve the following:

- Inconsistent direction and guidance among the regional offices.
- Software updates that affect archived files.
- Dates that can change.
- The lack of effective procedures for ensuring smooth site transitions, for example, when RPMs or attorneys change.
- The lack of consistency in removing drafts (letters and documents) from electronic files.
- The need for more management input and guidance on this issue.

In response, the panel addressed:

- EPA's information "overload."
- Problems with EPA's current records management systems.
- EPA's records management guidance.
- An overview of documents that RPMs typically create.
- Procedures for retention, for such items as draft documents, electronic records, and e-mails. What to save? How long to keep? What to recycle?
- Electronic data management. Who is responsible? What are the various regional approaches? What are the pros and cons?
- EPA's databases. What are they? Where are they? Which are most critical?
- Administrative Records (ensuring accuracy and timeliness).

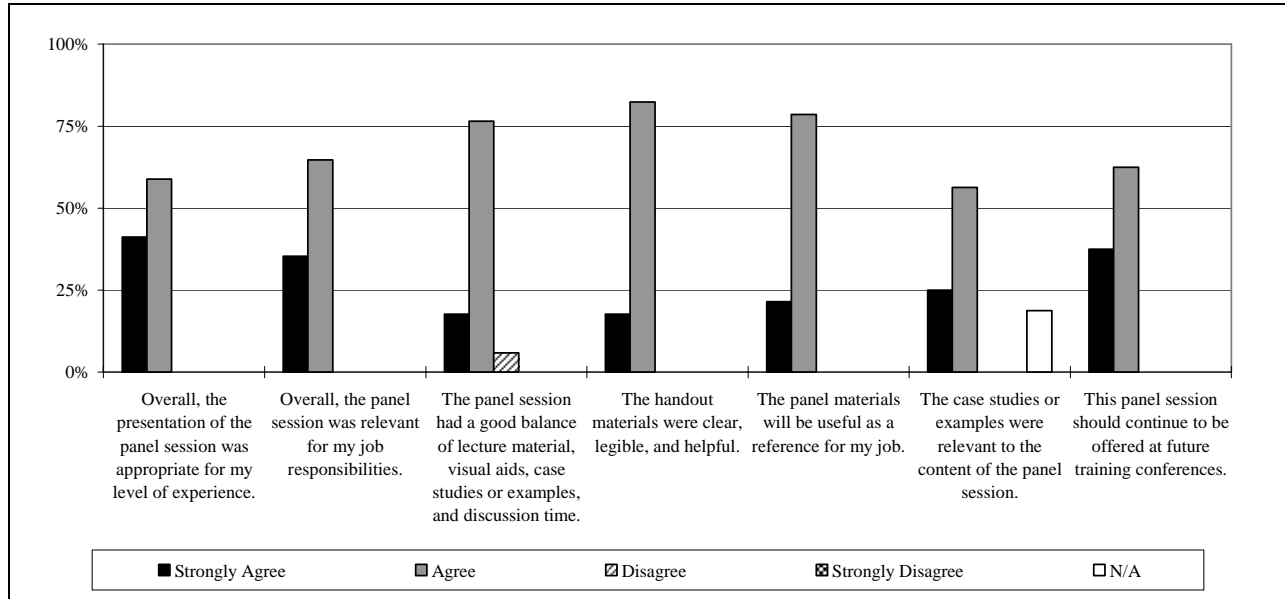
As a follow up to this session, members of the panel considered developing a national workgroup to examine this issue of securing a consistent approach to files and records management.

**Participation and Average Grade**

No. of Preregistrants	No. of Students Who Signed Session Roster	Number of Evaluation Forms Submitted	Average Grade
26	22	17	4*

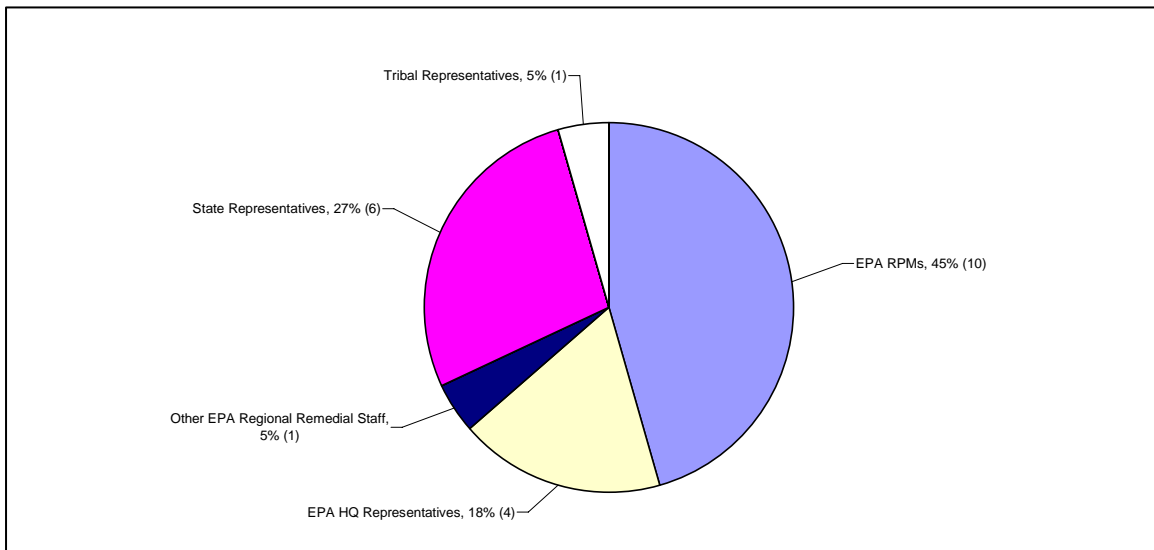
\* The grade displayed is the average of the grades identified on the evaluation forms based on a 5-point scale. The average is calculated by rounding the raw average to the nearest integer (for example, 3.6 rounds to 4).

**Summary of Evaluation Results for the Take Charge! – Improving Your Document Management Skills Panel Session**



The pie chart below illustrates the percentages of students for the panel session by job title. EPA RPMs represented 45 percent of the students.

**Students by Job Title for the Take Charge! – Improving Your Document Management Skills Panel Session**



Summarized below are the written comments provided on the evaluation forms. Similar observations have been combined and paraphrased. Comments submitted by a single respondent are recorded below.

**Comments on relevance to job responsibilities and experience level**

- Not sure yet, depends on how e-document retention evolves.

**Comments on course content**

Lengthen

- What is a record?

Add

- More guidelines on who knows what guidelines.
- More on efficiency of documents.

**Comments on instructional methods and materials**

- Very good discussion but really needs more time to divest to all topics.
- Very good information! A little more depth of topics is the only complaint or request I would have.
- All panel members had a very good delivery style. Well done!
- Not too many details of an example were given.
- The handouts were not given in one specific order. People were going through the handouts trying to find the one the panelist was speaking from. Maybe numbering the handouts or hand them out when the panelist speaks. It might bring some order. Thanks.
- It would have been helpful to let the audience know when you were referring to a handout (who had them).
- Multiple presenters. Need more time to discuss subject.

**Comments on course name and abstract expectations**

- Session was very valuable, but the name was a little misleading. "Skills" suggest personal skills. We were really talking about responsibilities and requirements.
- Difference in some respect.

**Comments on recommending course to colleagues**

- We all have information to manage.
- A lot of information (legal).

**Comments on additional/new course offerings for the future**

- With more clarity and proposed guidelines.
- Will always be changing and important.
- This type is relevant and will remain so.

**Summary of the Session**

Damian Duda submitted the summary for this session, which is recorded below.

This panel sought to:

- 1) Raise awareness of the importance of improving regional and national document management practices;
- 2) Highlight some of the issues that confront EPA staff with regards to document management during litigation and discovery and when responding to Freedom of Information Act requests;

- 3) Discuss practical, cross-divisional solutions to functional document management; and,
- 4) Consider developing a workgroup to look at document management issues and potentially develop a quick guide and related training.

The PowerPoint presentations are posted on the training conference Web site, including electronic versions of the handouts. Handouts included Region 2's Initial Approach to Document Management, Non-Records versus Records, Records Management Basics, E-mail Quick Reference Guide, E-Mail Record Decision Tree, ECMS brochure, copy of ECMS Power Point slides, and copy of Site Transition Power Point slides [not fully discussed but future topic].

### **Points Discussed**

#### **Marla Wieder, Region 2**

- The importance of document management – reflections on *General Electric Company v. EPA*;
- Discussion of tools for employees;
- Issues involving litigation, discovery, and Freedom Of Information Act – privileges and exemptions;
- Developing a regional approach to document management: initial thoughts from Region 2.

#### **Benjamin Bahk, Office of Site Remediation Enforcement**

- Amendments to Federal Rules of Civil Procedure regarding e-Discovery took effect on December 1, 2006.
- These amendments require that attorneys be much more knowledgeable about electronically stored data.
- EPA and the Department of Justice are working to complete a reference that catalogues electronically stored data.
- Once this is done, it should make discovery efforts related to ESI much easier. For example, these guidelines would have made General Electric Company discovery much easier because many of the issues related to databases and their production would have been worked out.
- For OSCs and RPMs, follow record management guidelines and contact your case attorney for guidance if litigation is anticipated or initiated.
- Information on e-Discovery will have to be updated as new databases and electronically stored data come online.

#### **Damian Duda, Region 2**

- Discussion of e-mail congestion on the RPMs' plates.
- Discussion of ECMS and its impending implementation.
- ECMS provides a way to permanently save technical or site-related e-mails that are considered "records."
- ECMS can help eliminate e-mail records from Lotus Notes thereby freeing up the e-mail system.
- Need to ensure that "saved" e-mail records are easy to find and download, if necessary.
- Need to be aware of the various Records Schedules and requirements for each identified schedule.
- ECMS training should be rolled out to the Superfund program by July 31, 2007.

## **Roundtable Discussion with Dion Novak, Region 5, Marla Wieder, Region 2, Damian Duda, Region 2, and Benjamin Bahk, Office of Site Remediation Enforcement**

The format of the roundtable discussion included a student discussion of document management issues and exploring with the group their thoughts on EPA's current structure, or lack thereof.

Opening question posed: What files do we need readily available at our desks?

Overall the audience indicated that the documents needed most depend on the phase of the project (i.e., investigation, design, etc.).

Documents and files common to all phases:

- Statutes, regulations, NCP
- Working site file
- ROD
- Correspondence
- Funding materials
- Other documents
- Consent Orders, Unilateral Agreement Orders, Consent Decrees
- Palm Pilots, Personal Organizers
  - Meeting schedules
  - Site visits
  - CERCLIS input

Documents and files needed for specific phases:

- Construction Phase
  - Remedial Investigation/Feasibility Study report
  - Final RD
  - Treatability study
- O&M (post-construction) Phase
  - O&M manual
  - O&M reports
  - Data reports

Another question posed: How do you handle electronic correspondence?

- 1) Print out and file,
- 2) Save in file folder, and
- 3) For large Portable Document Format files, set up a QuickPlace folder, or similar.

There was some discussion of what to do with contract files, specifically pertaining to EPA Response Action Contract.

Questions posed by the audience were: Does project officer have necessary copies? Does the RPM need to keep all as well? The response from the panelists indicated that, ultimately, it depends on policy made at the regional level.

## **General Discussion and Recommendations for Implementation of Workgroup**

Overall, EPA needs to ensure consistency across regions. In order to determine which items should be kept at hand and which can be filed and archived, etc., EPA needs to get an idea of the records keeping requirements that exists across regions. Records management has many variations. In order to secure a reasonable list of needs, the following question should be posed: What do the regions require? By assembling information on how RPMs deal with records in the ten regions, we can prepare a general overview of records management nationally. By assessing the various methods of records management in the regions, the workgroup can come up with areas where we can attempt consistency.

The group decided that a workgroup should be developed. Two questions posed included:

- 1) How would it operate?
- 2) Where should the group focus their attention?

The workgroup's goals are as follows:

- 1) To develop some functional tool(s) for RPMs and attorneys to use (i.e., something that can both provide guidance and spur relevant conversations within regions on current records management techniques and ways to improve them).
- 2) To be a source of records management information.

### Activities Proposed for the Workgroup

- First and foremost, secure and maintain consistency in whatever recommendations are developed.
- Assemble regional records management information. This information could assist the group in focusing on developing records management guidance, as well as developing a potential training agenda.
- Assess regional variations and sort out the differences and similarities that could be adapted into national recommendations.
- Provide some guidance on site transition matters. How does one handle documents and files during changes in site management?
- Find out what the RPMs want as to records management guidance. Develop a brief questionnaire to solicit areas where assistance is wanted.
- Provide a brief set of common rules and suggestions that all can use.
- Provide suggestions so that each region can customize an overall general strategy.
- Provide examples of what works so that all can understand.

Tim Farris, OAM, indicated that he would be more than willing to provide us with information and guidance during our workgroup activities and guidance and training development.

## TCE Toxicity/Vapor Intrusion Pathway

Monday, May 21, 10:15 a.m. to 12:00 p.m.

Moderator: Kathy Davies, Region 3  
 Panelists: Brad Bradley, Region 5  
 David Cooper, EPA OSRTI  
 Helen Dawson, Region 8  
 Alana Lee, Region 9  
 Henry Schuver, EPA OSWER  
 Michael Sivak, Region 2

The TCE Toxicity/VI panel session updated RPMs on the status of the draft TCE toxicity value, presented the NRC's major review findings on TCE, and provided a forum for the exchange of information about how the various regional offices are handling VI and lessons learned. Panel members, made up of RPMs, toxicologists, and experienced VI specialists, discussed how they have been using the TCE inhalation toxicity value and how it applies to evaluation of the VI pathway. The panelists also shared site examples of the challenging issues that influence evaluation of the VI pathway, what they have done, and the lessons learned.

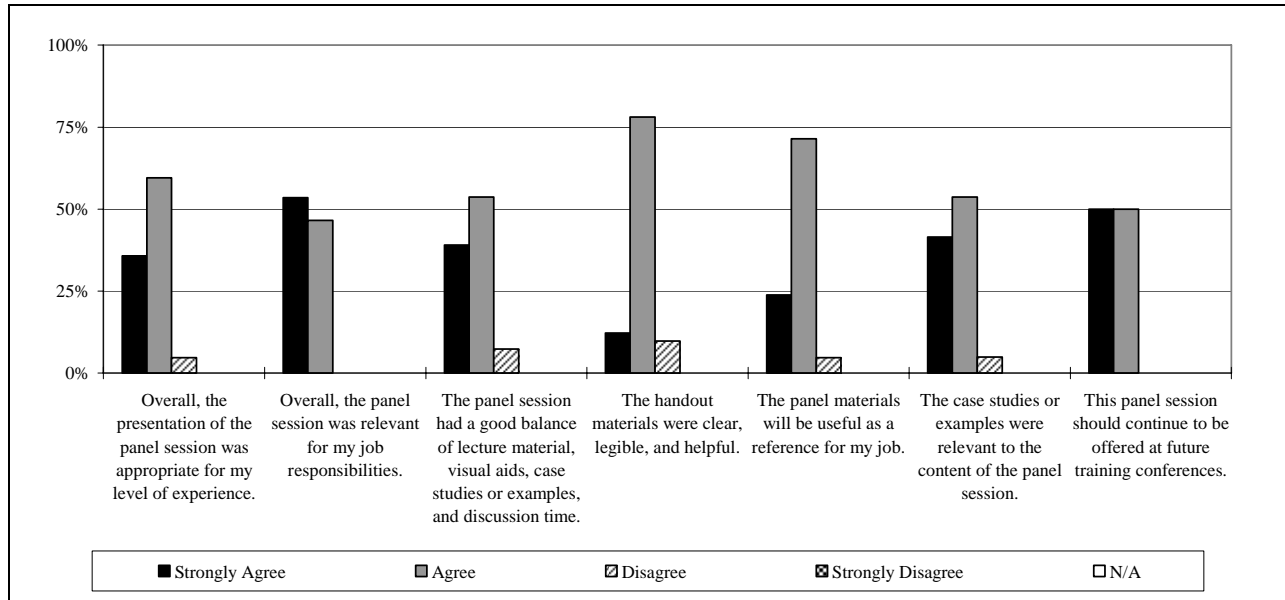
It is expected that TCE will be the primary contaminant that prompts further evaluation of the potential health risks from the VI pathway, for two reasons. First, TCE is the most common VOC at Superfund ground water sites; and second, there is debate about which TCE values to use when evaluating the VI pathway. RPMs whose sites have been affected by TCE and were evaluating the VI pathway were encouraged to attend, and were invited to share challenges at their sites with the panelists and other students.

### Participation and Average Grade

No. of Preregistrants	No. of Students Who Signed Session Roster	Number of Evaluation Forms Submitted	Average Grade
71	63	44	4*

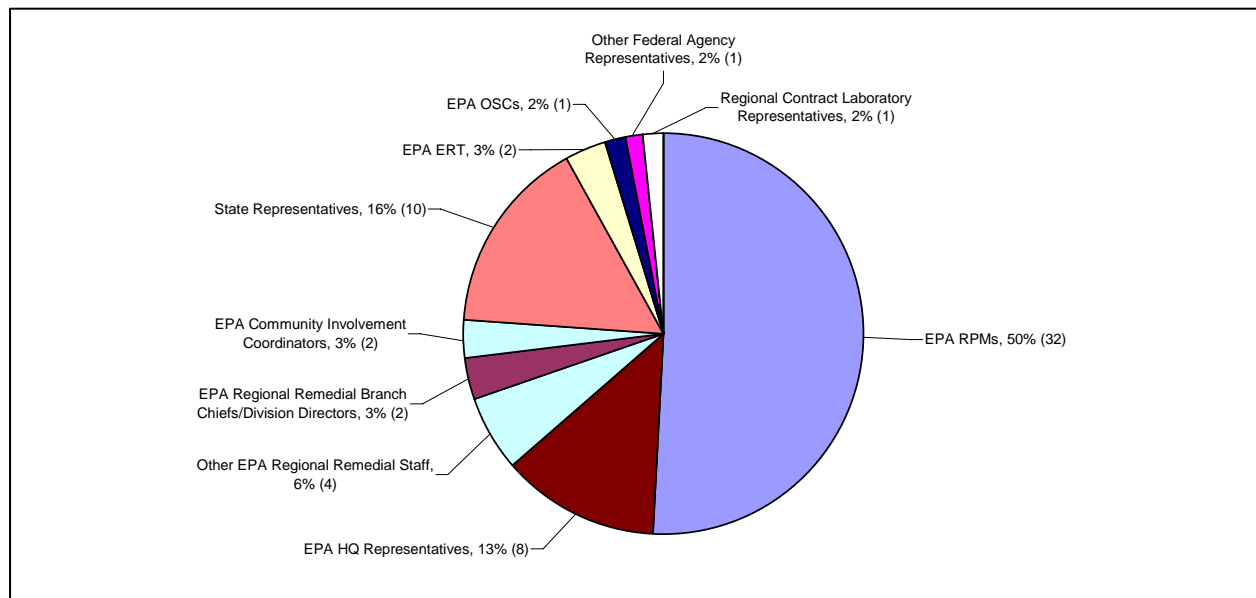
\* The grade displayed is the average of the grades identified on the evaluation forms based on a 5-point scale. The average is calculated by rounding the raw average to the nearest integer (for example, 3.6 rounds to 4).

**Summary of Evaluation Results for the TCE Toxicity/Vapor Intrusion Pathway Panel Session**



The pie chart below illustrates the percentages of students for the panel session by job title. EPA RPMs represented 50 percent of the students.

**Students by Job Title for the TCE Toxicity/Vapor Intrusion Pathway Panel Session**



Summarized below are the written comments provided on the evaluation forms. Similar observations have been combined and paraphrased. Comments submitted by a single respondent are recorded below.

### Comments on relevance to job responsibilities and experience level

- H. Schuver presentation lost me. Shorthand discussion exceeded my level of understanding. Information from Regions 2 and 9 were very useful with on site experience and lessons learned.
- The panel presentations indicate a variety of approaches to indoor air issues. A unified approach is needed.

### Comments on course content

#### Shorten

- Number of speakers.
- TCE toxicity/policy history (provide information summary).

#### Lengthen

- More time per discussion and more detail. (*Two responses*)
- Panel presentations. Each had to rush through presentation.
- A two-minute summary of a 20-year-old site with complex containment distribution and multiple plumes was inadequate.
- Could have had a little more detail on the case studies.
- Length of presentation.
- Region 2, Region 9, and H. Schuver.

#### Omit

- Engineering action costs versus long term monitoring costs.

#### Add

- More time for questions.
- Discussion of changes in physical integrity of slab and affects on attenuation factor.
- Source treatment.
- Would have liked to hear more about what is "coming" out of Headquarters as far as dates, regulations, etc.
- Radiation, presumptive remedy discussions.

### Comments on instructional methods and materials

- PowerPoints could have been more effective, particularly the first two.
- Lack of case studies.
- Too little time for each speaker, or too many speakers. (*Two responses*) Four panelists would have been enough for the time period.
- Introductory slide illustrating how modeled preferential soil has flowed toward building was intriguing. An explanation and some examples of sites which largely match this paradigm would have been helpful.
- Make PowerPoint presentation available on web, by disc, or email.
- I will rely on handout when back in the office and cannot read some of the slides. Maybe 2 per page rather than 4. (*Four responses*)
- Several overly dense slides or non-legible colors used on slides. (*Three responses*)
- Some materials difficult to read, red lettering on red background. (*Two responses*)
- Not enough information.
- Good, knowledgeable individuals from various regions.
- Covered TCE toxicity. Could have more specifics on site regulations.
- Should have had a little more description and mention of focus on varying risk levels from state-to-state.
- Henry Schuver spoke too fast. (*Two responses*)
- Pace was between good and too fast.
- Needed more time for the presentation.
- There were too many presenters so they rushed through the materials. Even more information from other, additional regions would be useful.

- How can all of the various regions use the same chemical action levels?
- Please get information on new guidance out to the regions as soon as possible.
- Might be helpful to include a presenter on community considerations. A particularly important consideration with this contaminant and pathway.
- David Cooper - good introduction to subject and where we are. Henry Schuver - not readable slides.
- Great, up-to-date information!

#### **Comments on course name and abstract expectations**

- Title was correct, but very short.

#### **Comments on recommending course to colleagues**

- Many of my coworkers do not understand VI and are essentially "scared" of it because of the problems with public perception.
- The panel covers the issues and questions openly and clearly.
- Excellent way to stay current on "state of VI."
- If TCE VI is an issue for one of their sites.
- Vapor Instruction is an emerging issue and not well understood with all RPMs.

#### **Comments on additional/new course offerings for the future**

- Very relevant.
- Seems like it is going to be an issue for the future because of the number of sites affected with TCE.
- VI issues area still evolving. So will need to continue updating current thinking.
- Obtain more up-to-date information and illustrations. Consider having graduate students engaged in VI research (e.g., under Dr. Johnson at Arizona State University) present and serve on panel.

#### **Summary of the Session**

Alana Lee submitted the summary for this session, which is recorded below.

The panel members provided an update on the revised OSWER VI Guidance; observations and potential uses of the national VI database; investigating VI using the Region 2 TCE/PCE VI decision matrix, Region 9's TCE interim action levels and VI challenges, and Region 5's VI experience and issues. EPA OSRTI provided an update on the status of the TCE health risk assessment, the NRC's review of the specific TCE science questions, when we will have a new TCE Integrated Risk Information System value and what are acceptable TCE concentrations in indoor air. While the reassessment for TCE is still being completed, the panel members recommended continuing using a target TCE indoor air action level of 1 to 5 micrograms per cubic meter. This range of values primarily comes from the use of either the California EPA or the New York State Department of Health TCE evaluation. The final TCE toxicity value on Integrated Risk Information System is not expected until after 2010.

The panel members discussed questions from the audience pertaining to how to evaluate VI pathways at their sites. A range of methods for a sampling strategy was discussed, from sub-slab soil gas sampling to indoor and ambient air sampling, to modeling, to all of the above. The panel members discussed the site-specific factors that influenced the sampling strategy – some regions prefer sampling sub-slab; some precautions to take to avoid confounding sources when sampling indoor air; and how use of attenuation factors and modeling may be helpful when screening VI sites. The panel and audience discussed consistency issues; resistance in some states to evaluate the VI pathway; and what is the appropriate TCE value given state, PRPs, DoD, and community concerns.

## An Overview of Performance Measurement and Reporting for the Superfund Remedial Program Information Session

Monday, May 21, 1:15 p.m. to 2:45 p.m.

Presenters: Melanie Hoff, EPA OSWER  
 Trina Martynowicz, EPA FFRRO  
 Janet Weiner, EPA OSWER

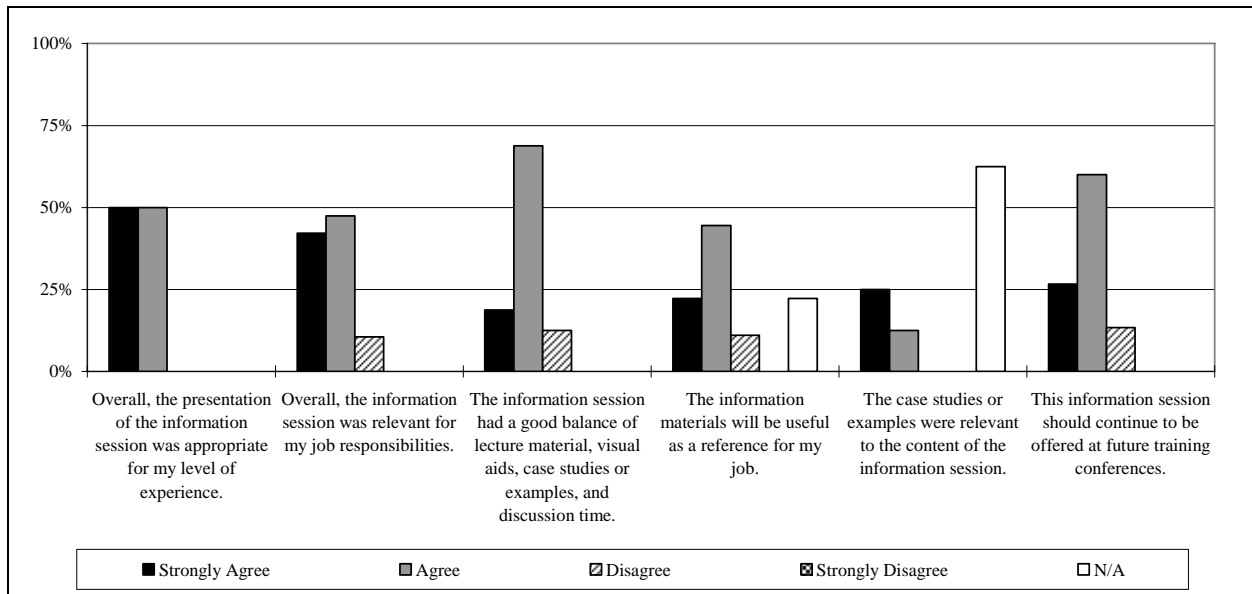
The *Overview of Performance Measurement and Reporting for the Superfund Remedial Program* information session demystified the processes associated with performance measurement. The session provided a comprehensive summary of Superfund’s suite of performance measures and the data systems used to record performance targets, baselines, and accomplishments. Students came away with a better understanding of the Government Performance and Results Act, EPA’s fiscal year 2006 through 2011 Strategic Plan, and EPA’s annual Performance and Accountability Report. The information session provided an overview of how EPA’s senior management monitors programmatic performance through reports such as the Quarterly Management Report, the Organizational Assessment, Regional Reviews, and the conduct of periodic briefings for the Deputy Administrator (the “Marcus Reports”). With a focus on RPMs, the session concluded with an in-depth discussion of several key performance measures and the RPM’s role in ensuring consistency in their implementation across the regional offices.

### Participation and Average Grade

No. of Preregistrants	No. of Students Who Signed Session Roster	Number of Evaluation Forms Submitted	Average Grade
39	30	19	4*

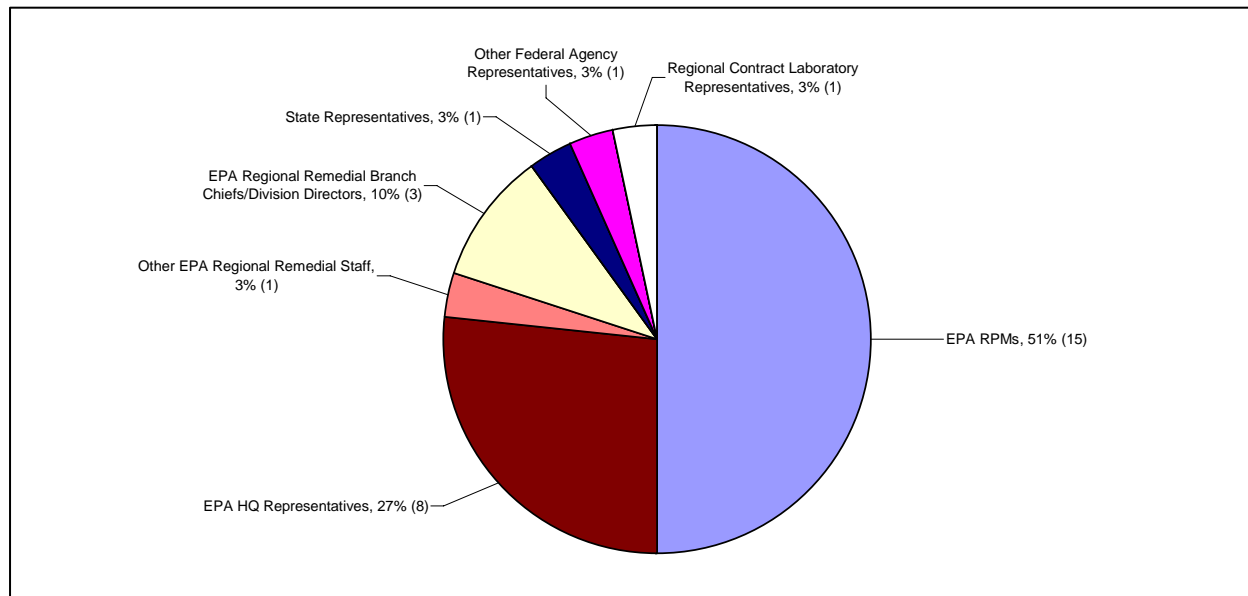
\* The grade displayed is the average of the grades identified on the evaluation forms based on a 5-point scale. The average is calculated by rounding the raw average to the nearest integer (for example, 3.6 rounds to 4).

### Summary of Evaluation Results for the Overview of Performance Measurement and Reporting for the Superfund Remedial Program Information Session



The pie chart below illustrates the percentages of students for the information session by job title. EPA RPMs represented 51 percent of the students.

**Students by Job Title for the Overview of Performance Measurement and Reporting for the Superfund Remedial Program Information Session**



Summarized below are the written comments provided on the evaluation forms. Similar observations have been combined and paraphrased. Comments submitted by a single respondent are recorded below.

**Comments on relevance to job responsibilities and experience level**

- As an RPM, I do not get involved in this day to day; so please define all acronyms. Many of the acronyms were new to me.
- Was a little out of my league.
- Having a better understanding of measures.

**Comments on instructional methods and materials**

- Case studies not applicable.
- Not sure if there would be an appropriate case study for this. Graphics were rather dull.
- Relatively seamless question and answer.
- Would have been very helpful to have copies of the handouts.
- The presenters were very good, but it would have been helpful to have copies of the presentations.
- Great job!
- Trina Martynowicz – good presentation style.
- It helps to know that Headquarters recognizes that there are some shortcomings to methods used to make measurements.

**Comments on suggestions for future offerings of this course**

- Need some hands on CERCLA training.
- Could be a filler course if nothing else is available.
- Only to the extent there are significant differences in future measures.

- The work and the presentation were very good indeed. The value of such frequent tracking is questionable.
- I agree, especially as Headquarters makes these things mandatory.
- The information is extremely important for RPMs so they can better understand the environment today at EPA.

**Summary of the Session**

A session summary was not provided.

## Computer Lab – Open House

Thursday, May 24, 10:30 a.m. to 12:00 p.m.

Presenters:     Jean Balent, EPA OSRTI  
                   Mark Heare, EPA OAM  
                   Julie Roemele, EPA OSRTI

The *Computer Lab – Open House* information session provided an opportunity for attendees to conduct hands-on demonstrations of EPA’s QuickPlace, ACMIS, and complete an online survey on inorganics by EPA’s CLP.

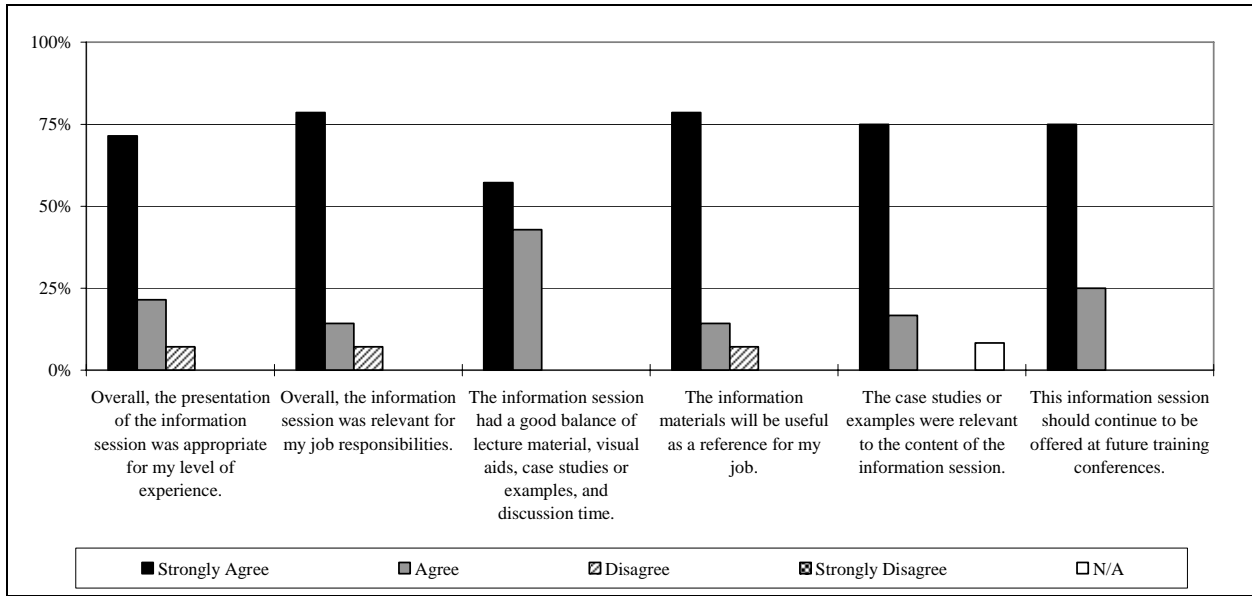
- QuickPlace allows users to create a team workspace to gain access to timely information and to seamlessly bring together geographically and organizationally dispersed team members. ERT members and Jean Balent, EPA OSRTI, were available to help RPMs learn out to set up their own workspace.
- The Clinger Cohen Act directed all federal agencies to keep training records on their acquisition work force, including all EPA contracting officer’s technical representatives, Work Assignment Managers and Task Order Project Officers on EPA contracts. In response, the Federal Acquisition Institute developed a web-accessible database system, ACMIS, and all contracting officer’s technical representatives must be registered in this system by July 1, 2007. Mark Heare, EPA OAM, was available to assist RPMs with ACMIS. This federal wide system is not particularly user friendly so students were encouraged to stop in to register in ACMIS and get some tips from Mark.

### Participation and Average Grade

No. of Preregistrants	No. of Students Who Signed Session Roster	Number of Evaluation Forms Submitted	Average Grade
22	14	14	5*

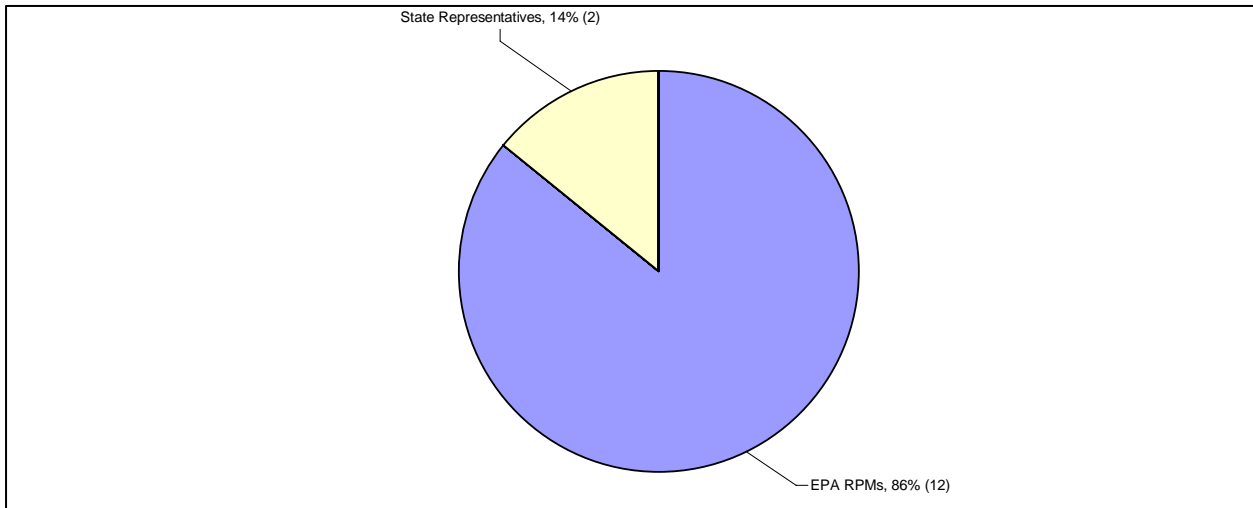
\* The grade displayed is the average of the grades identified on the evaluation forms based on a 5-point scale. The average is calculated by rounding the raw average to the nearest integer (for example, 3.6 rounds to 4).

**Summary of Evaluation Results for the Computer Lab – Open House Information Session**



The pie chart below illustrates the percentages of students for the information session by job title. EPA RPMs represented 86 percent of the students.

**Students by Job Title for the Computer Lab – Open House Information Session**



Summarized below are the written comments provided on the evaluation forms. Similar observations have been combined and paraphrased. Comments submitted by a single respondent are recorded below.

**Comments on relevance to job responsibilities and experience level**

- Though my agency is not using QuickPlace, it is good to know since my Region 9 counterparts will be.
- Needs to be reinforced within the regions.
- I think this is a great tool. Needs more advertising to RPMs.

**Comments on course content**

Shorten

- Lecture time.

Lengthen

- Hands on experience on the computer.

Add

- More time to help on set up.
- Add a sample QuickPlace site with actual NPL site types of content.

**Comments on instructional methods and materials**

- Great session!
- Great class!
- Jean is excellent. It would be great if she can travel to the regions to present this tool so more RPMs can learn about this useful tool.
- Impressive that Jean set up this very in depth examination of QuickPlace herself. Very engaging and easy manner.
- This is an EPA tool that will not be generally accessible or usable for most outside workers. However, it appears to be a very useful tool.

**Summary of the Session**

A summary was not provided.

## Engineering Forum Remedial Technology Update

Thursday, May 24, 10:30 a.m. to 12:00 p.m.

Moderator: Steven Kinser, Region 7  
 Presenters: Carolyn Acheson, EPA ORD  
 David Reisman, EPA ORD  
 Hilary Thornton, Region 3

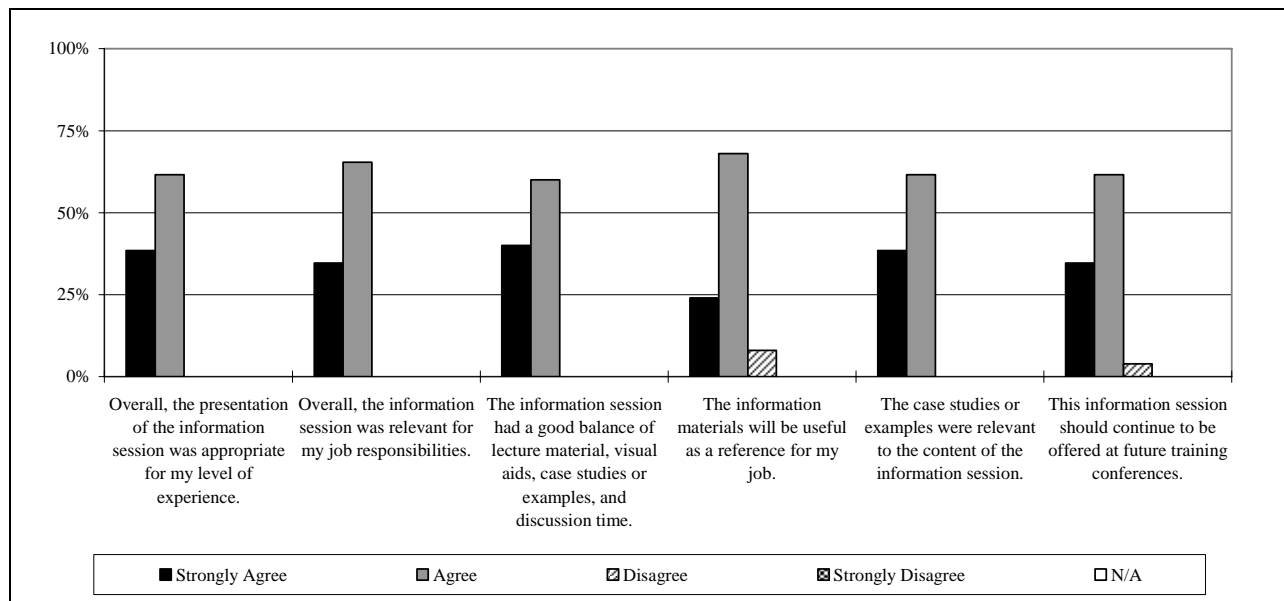
Over the last year, the Engineering Forum and EPA’s ORD have issued a series of engineering issue papers on various remedial technologies. The *Engineering Forum Remedial Technology Update* information session covered the latest technical developments in three of the engineering issue papers published after the 2006 NARPM Annual Training Conference: *In Situ and Ex Situ Biodegradation Technologies for Remediation of Contaminated Sites*; *Management and Treatment of Water from Hard Rock Mines*; and *In Situ Chemical Oxidation*. Each half hour update began with a brief overview of the technology, included examples of how the technology is being applied at sites and lessons learned from the field, and closed with a question and answer period.

### Participation and Average Grade

No. of Preregistrants	No. of Students Who Signed Session Roster	Number of Evaluation Forms Submitted	Average Grade
65	52	27	4*

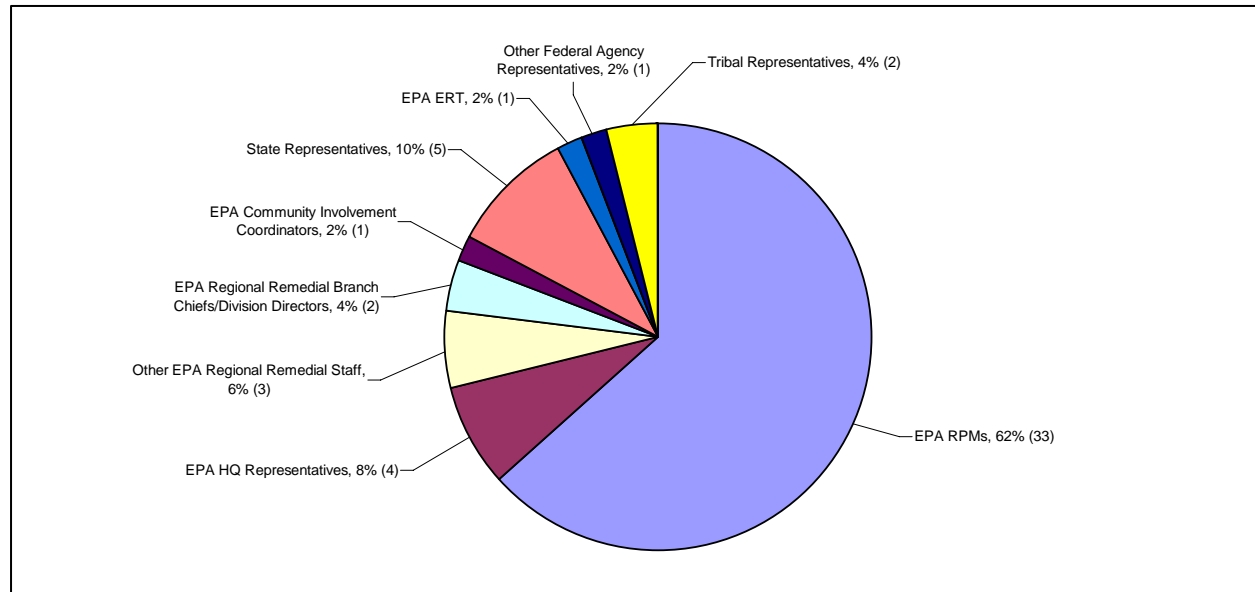
\* The grade displayed is the average of the grades identified on the evaluation forms based on a 5-point scale. The average is calculated by rounding the raw average to the nearest integer (for example, 3.6 rounds to 4).

### Summary of Evaluation Results for the Engineering Forum Remedial Technology Update Information Session



The pie chart below illustrates the percentages of students for the information session by job title. EPA RPMs represented 62 percent of the students.

#### Students by Job Title for the Engineering Forum Remedial Technology Update Information Session



Summarized below are the written comments provided on the evaluation forms. Similar observations have been combined and paraphrased. Comments submitted by a single respondent are recorded below.

#### Comments on course content

##### Lengthen

- ORD presentation.
- Actual case studies were too cursory in first speaker.

##### Add

- Cover more innovative technologies.

#### Comments on instructional methods and materials

- Good case studies, but needed more details.
- The bioremediation presentation was really excellent, as was the ISCO presentation.
- Pace was a little too fast.
- First speaker went too fast but was very interesting. Hilary is a great speaker. Last speaker was a good speaker. It would be more helpful if we would get slides to follow along.
- Presentation by Hilary was particularly well done, clear and informative. *(Two responses)*
- Excellent session. All 3 speakers did a great job communicating the information.
- Great course!
- Spoke too fast and there were too many examples without enough explanation and details.
- The bioremediation handout was great! Not all of the slides, just the relevant information, outlines and tables - and it all fit on one sheet. I suggest more speakers distribute outlines versus a copy of their slides.
- The ORD presentation was interesting and more material from ORD would be good.
- Should have slides/handouts.

**Comments on course name and abstract expectations**

- Covered technologies of interest.

**Comments on suggestions for future offerings of this course**

- Give it more time, use a different order or cut out some information.
- Technologies should vary year to year.
- Information from the ISCO and bioremediation talks were rehashed from better presentations.
- Providing various engineering issues in this type of setting seems to work well.
- Definitely continue this session.
- Dioxin is a hot topic within the agency. The engineering forum should consider focusing on several types of contaminants and focusing on the contaminant and technologies that have been used to remediate. That way RPMs might not observe technologies but will know if it is worth considering it on their site.

**Comments regarding the moderator**

- A little more description and background would be good.

**Summary of the Session**

Steven Kinser submitted the summary for this session, which is recorded below.

The session was well attended and initial indications were that each of the presentations was well received. Each presentation provided a general overview of the state of the technology, with emphasis on specific recent activities in the field in this area. Each presentation was a general overview of actions and consequences, with few questions concerning the presentation. Overall, the presentations provided a sound technology update, which was well received. Most questions concerned specific applications of those in the audience.

## Ground Water Issues and 5-Year Reviews

Thursday, May 24, 8:45 a.m. to 10:15 a.m.

Moderators: Dan Forger, Region 2  
 Marcia Knadle, Region 10  
 Presenters: Marcia Knadle, Region 10  
 Jonathan Williams, Region 10  
 Kevin Willis, Region 2

Five-year reviews are an integral part of post-ROD management of Superfund sites. RPMs and hydrogeologists at EPA-lead sites need to evaluate whether the constructed ground water remedy is proving to be adequately protective and effective. EPA needs to review 5-year reviews prepared by the lead agency for other CERCLA sites. RPMs must either concur with the lead agency’s conclusions on protectiveness and effectiveness or independently evaluate and develop an EPA protectiveness statement. The *Ground Water Issues and 5-Year Reviews* information session focused on commonly observed problems identified by hydrogeologists in conducting 5-year reviews and evaluating 5-year reviews prepared by other agencies to identify possible solutions. An illustrative case study and a moderated question and answer session were included in the session.

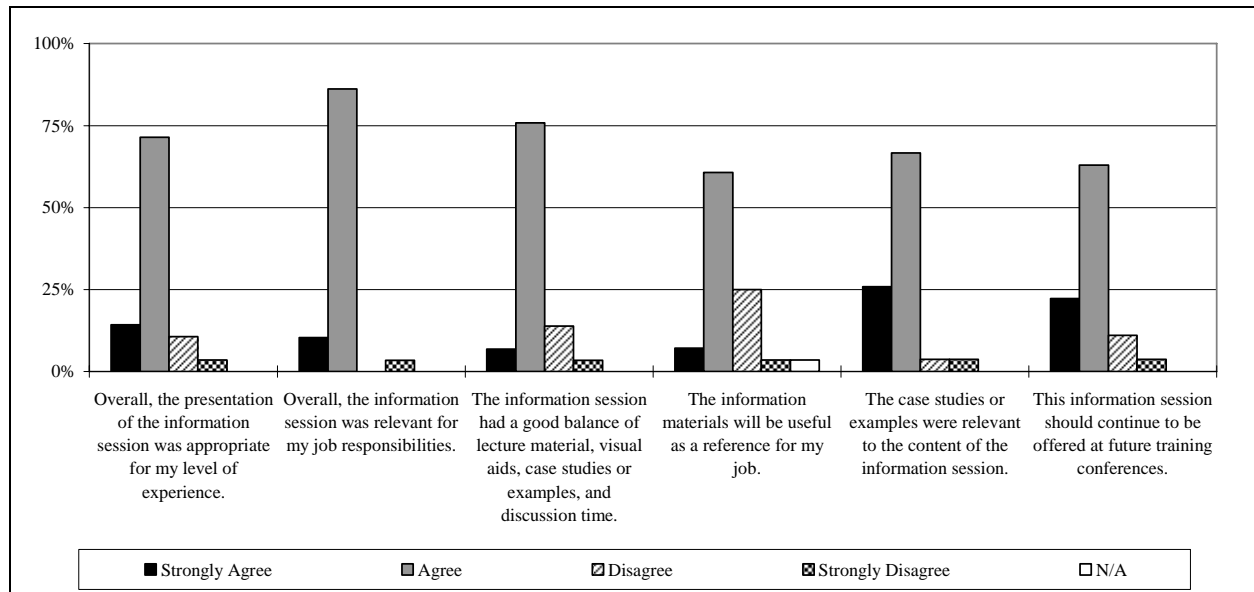
This session was developed by the EPA Ground Water Forum.

### Participation and Average Grade

No. of Preregistrants	No. of Students Who Signed Session Roster	Number of Evaluation Forms Submitted	Average Grade
64	59	29	3*

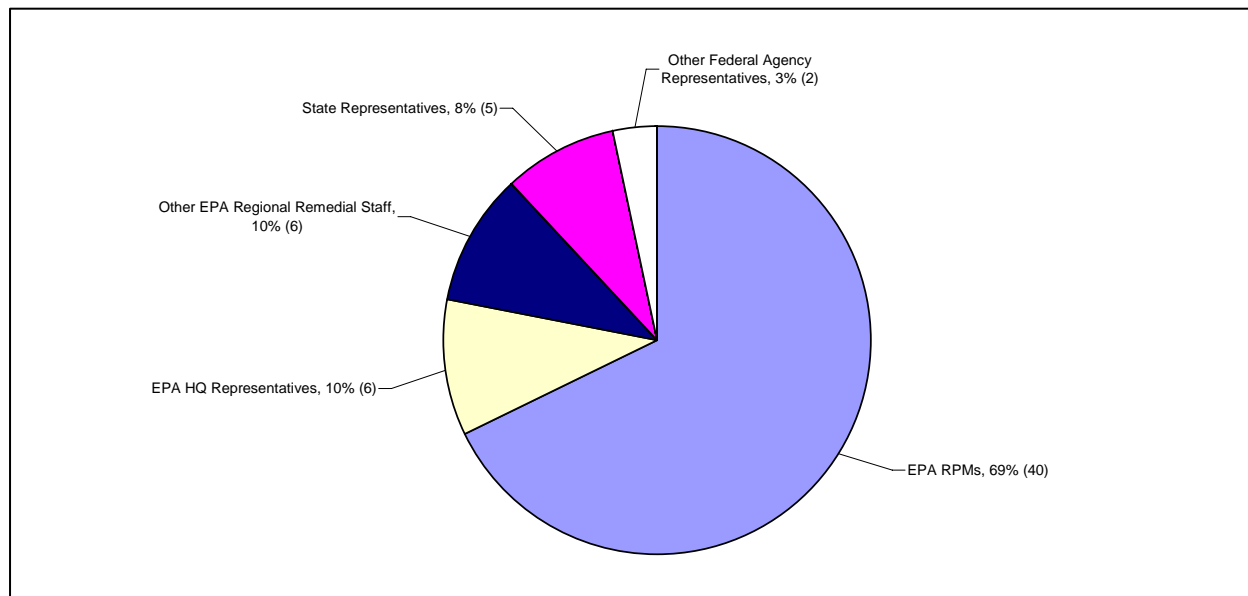
\* The grade displayed is the average of the grades identified on the evaluation forms based on a 5-point scale. The average is calculated by rounding the raw average to the nearest integer (for example, 3.6 rounds to 4).

### Summary of Evaluation Results for the Ground Water Issues and 5-Year Reviews Information Session



The pie chart below illustrates the percentages of students for the information session by job title. EPA RPMs represented over 69 percent of the students.

#### Students by Job Title for the Ground Water Issues and 5-Year Reviews Information Session



Summarized below are the written comments provided on the evaluation forms. Similar observations have been combined and paraphrased. Comments submitted by a single respondent are recorded below.

#### Comments on relevance to job responsibilities and experience level

- State cleanup is similar in many ways to the EPA process. Reasonable applicability, quite useful.
- The list of references and Web sites is helpful, but the slides probably not. A fact sheet format would be more useful.

#### Comments on course content

Shorten

- Lecture.

Lengthen

- Need question and answer examples.

Add

- Examples of protectiveness statement related to you.

#### Comments on instructional methods and materials

- Case studies are good. I like hearing various scenarios.
- Some FF specifics were not relevant.
- Very good examples.
- Information was too shallow. Not enough real information.
- Poor content. (*Two responses*)
- More in depth issues. Drop definitions or explanations.
- All lecture.
- Presenters' names should appear on the individual presentation sections.
- Standard slide copies.

- Disjointed presentations.
- The talks were on time, short and to the point. This left sufficient time for questions and answers. We could read the guidance to learn how to complete a five year review. We need some real life examples of every type of remedy failure - MNA, pump and treat, capping, vapor intrusion, etc. - and how the situation was addressed in a five year review. Also, it would be better to have some PRP lead sites to demonstrate remedy failure and procedures of PRP.

**Comments on course name and abstract expectations**

- I expected more innovative ideas rather than reiteration of guidance and policy.
- Not really. Speakers did not relate issues to the five year reviews well.

**Comments on suggestions for future offerings of this course**

- I did not find it useful. This presented common sense information where I expected a presentation related to new ground water technologies, analysis tools, etc.
- Would recommend with changes.
- Update with "lesson learned" rather than emphasizing guidance and policy.

**Summary of the Session**

Dan Forger submitted the summary for this session, which is recorded below.

This information session presented strategies for meaningfully involving hydrogeologists throughout the five-year review process at Superfund sites with ground water issues, and how those issues relate to the questions to be addressed during five-year reviews. Our understanding of ground water sites typically evolves over time with scientific advances, new data, and new insights. Such changes to the site conceptual model or actual changes in site conditions may affect the protectiveness or effectiveness of ground water remedies. Evaluating five-year reviews for FF can pose special challenges because EPA may have little input on how the review is conducted and may need to develop alternative protectiveness statements. Several site-specific examples of how conceptual site models change over time and the implications for five-year reviews were presented.

Discussion during the question-and-answer period mainly involved questions about site-specific examples and strategies for addressing changes to the conceptual site model that may trigger a reassessment of the remedy.

## Remedial Action Contracting

Monday, May 21, 1:15 p.m. to 2:45 p.m.

Moderator and Presenter: John Smith, EPA OSRTI

The *Remedial Action Contracting* information session discussed the various aspects of developing a contracting strategy for implementing remedial action. The following topics were included:

- Relevance of site characteristics.
- Appropriate type of design.
- Appropriate contract type.
- Characteristics of contract types.
- Procurement methods.
- Contract management considerations.
- Cost risk management.

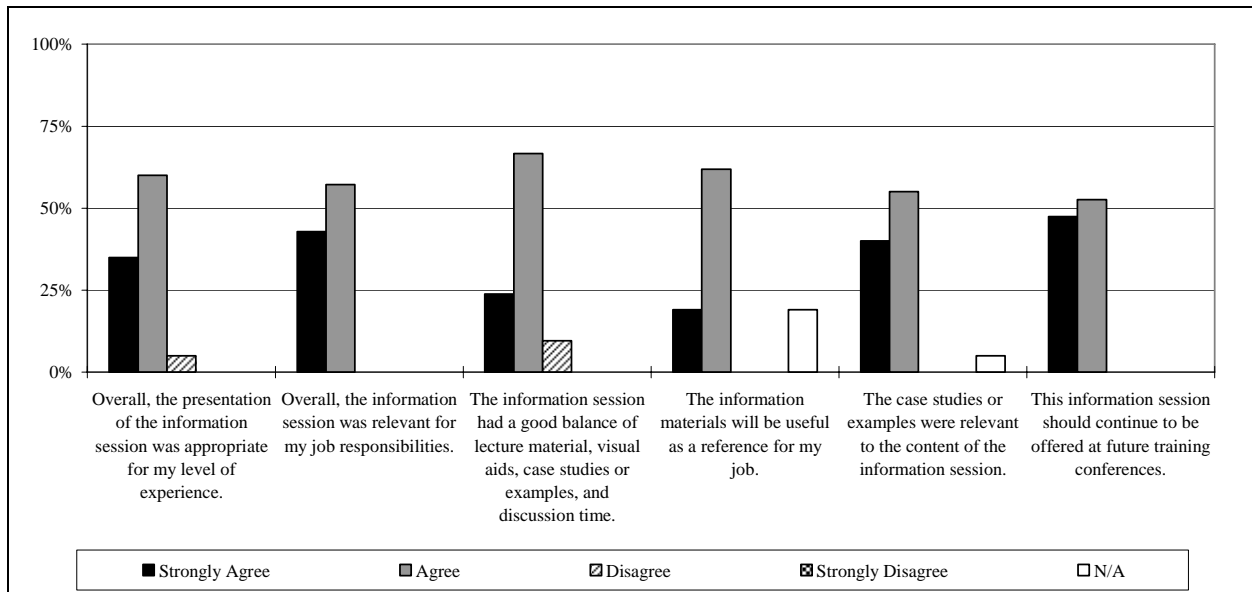
After the information session, two RPMs discussed their experiences with both fixed price and cost reimbursement contracts at Superfund sites. Open discussion followed these presentations.

### Participation and Average Grade

No. of Preregistrants	No. of Students Who Signed Session Roster	Number of Evaluation Forms Submitted	Average Grade
36	29	21	4*

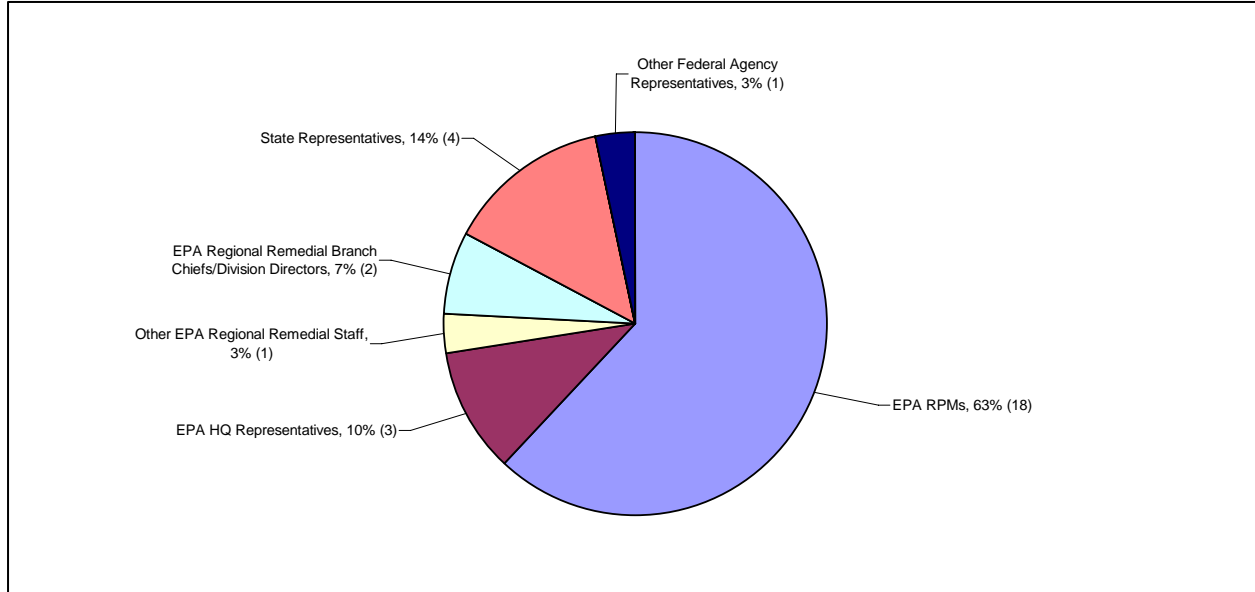
\* The grade displayed is the average of the grades identified on the evaluation forms based on a 5-point scale. The average is calculated by rounding the raw average to the nearest integer (for example, 3.6 rounds to 4).

### Summary of Evaluation Results for the Remedial Action Contracting Information Session



The pie chart below illustrates the percentages of students for the information session by job title. EPA RPMs represented 63 percent of the students.

**Students by Job Title for the Remedial Action Contracting Information Session**



Summarized below are the written comments provided on the evaluation forms. Similar observations have been combined and paraphrased. Comments submitted by a single respondent are recorded below.

**Comments on relevance to job responsibilities and experience level**

- The best part of the presentation focused on the real world experience of Region 7. The general information was slightly redundant. It is interesting to know how people are now contracting.

**Comments on course content**

Shorten

- Generic information on contracting.

Lengthen

- Sample projects using a combination of options.
- Go over more of the tools and people to go to for information.
- Need specific information on what is going on now in the regions.

Omit

- Some of the slides were redundant.

Add

- Development of SOW.

**Comments on instructional methods and materials**

- Too basic. (*Two responses*)
- The second case study was more useful than the others.
- Few case studies cited.
- The amount of time allotted really did not allow for questions and answers.
- More visuals would help.
- Could have gone a little faster.

- No handouts.
- Copies of presentation not provided to take notes.
- As a sample discussion, this was good but I left with more questions than when I came in.
- John knows his subject well. What was presented was good for the time allotted.
- Good discussion and information. Hit on the high points, which was good for people that already understand contracting basics.
- John Smith's presentation could have been shorter. There were good points about specifications, contract type, etc., but they could have been made in about half the time.
- John is a great speaker. The material was a bit repetitive. More examples and detail could have been added to case studies.
- Wish there was a greater discussion of what we are being encouraged to do and some idea of which regions have specific contractual expertise.

#### **Comments on course name and abstract expectations**

- As an informative session - yes. It would meet expectations if done as a training course.

#### **Comments on suggestions for future offerings of this course**

- More advanced.
- Suggest a course also on IAG grants, cooperation agreements.
- Training course might have been a better venue for the information I would like.

#### **Comments regarding the moderator**

- Moderator was experienced and knowledgeable.

#### **Summary of the Session**

John Smith submitted the summary for this session, which is recorded below.

The Remedial Action Contracting Information Session presented various aspects of developing a contracting strategy for implementing remedial action. Included in the moderated presentation were the following topics:

- Relevance of site characteristics;
- Appropriate type of design;
- Appropriate contract type;
- Characteristics of contract types;
- Procurement methods;
- Contract management considerations; and
- Cost risk management

Following this presentation, there were presentations by two RPMs on their experiences with both fixed-price and cost-reimbursement contracts at Superfund sites. There was open discussion following the panel presentations. RPMs received credit for contract training as a result of attendance.

Open discussion topics included various experiences with different contract types and different procurement strategies. Many project anecdotes were described and a good dialogue took place.

## Remedial System Evaluation in 2007

Monday, May 21, 10:15 a.m. to 12:00 p.m.

Moderator: Robert Alvey, Region 2  
 Presenters: Mark Dannenberg, Region 2  
 Jennifer Hovis, EPA OSRTI  
 Jeff Johnson, Region 7  
 Bernie Zavala, Region 10

The Remedial System Evaluation (RSE) process, also referred to as pump and treat optimization, provides a format for evaluating the operation of long-term remedial actions that involve ground water at Superfund sites. On “Fund lead” sites, EPA provides funding for operation of the treatment facilities for a 10-year period until the site is transferred to the states for continued operation. Many sites require an annual budget of well over \$500,000 to operate, maintain, and monitor. The RSE process involves a review of operation, maintenance, and monitoring actions and their costs, as well as conducting a re-evaluation of the characterization of the plume and potential contributing sources. The information gained in this evaluation provides significant benefits towards the cleanup of ground water. The RSE process helps identify areas where: 1) cost saving measures can be implemented; 2) increased efficiency of operations and maintenance can be recommended; and 3) new technologies might be applied to help reduce the need for long-term operation of the plants. The RSE process helps ensure remedial goals are achieved based on the increased understanding of current site conditions. The *Remedial System Evaluation in 2007* information session covered the following topics:

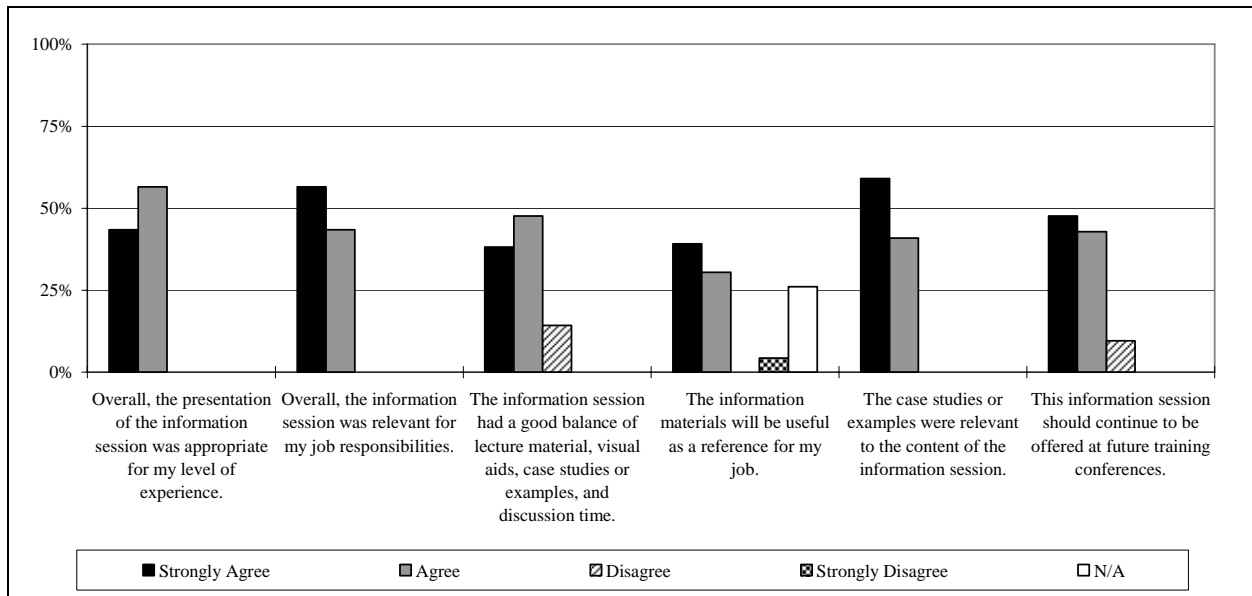
- Where the RSE is most applicable during the long term response action.
- The steps involved in an RSE.
- Planning by the RPM for an RSE.
- Understanding and using the recommendations from an RSE.
- Quantifying the savings of an RSE.
- Case studies of RSEs at EPA sites.

### Participation and Average Grade

No. of Preregistrants	No. of Students Who Signed Session Roster	Number of Evaluation Forms Submitted	Average Grade
33	32	23	4*

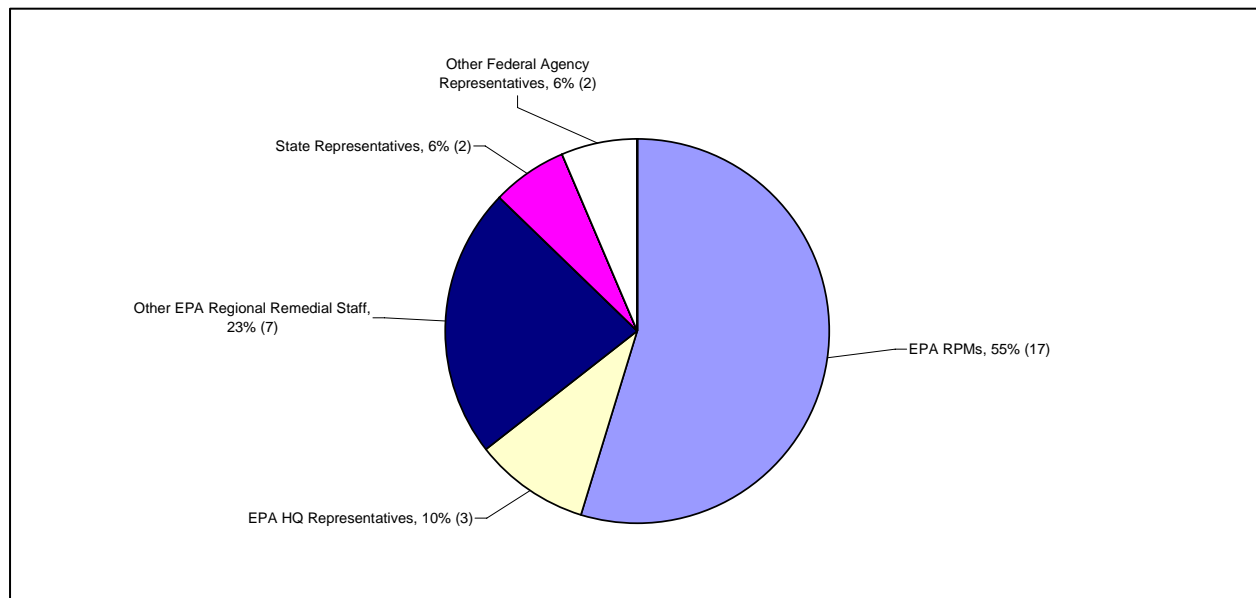
\* The grade displayed is the average of the grades identified on the evaluation forms based on a 5-point scale. The average is calculated by rounding the raw average to the nearest integer (for example, 3.6 rounds to 4).

**Summary of Evaluation Results for the Remedial System Evaluation in 2007 Information Session**



The pie chart below illustrates the percentages of students for the information session by job title. EPA RPMs represented 55 percent of the students.

**Students by Job Title for the Remedial System Evaluation in 2007 Information Session**



Summarized below are the written comments provided on the evaluation forms. Similar observations have been combined and paraphrased. Comments submitted by a single respondent are recorded below.

### **Comments on relevance to job responsibilities and experience level**

- The information materials would have been useful as a reference to my job. I will check the NARPM post-conference Web site for class slides.
- Not on current sites, but probably in the future.

### **Comments on course content**

#### Shorten

- History of sites – just get to how RSE applies.

#### Lengthen

- Jennifer Hovis' presentation in general.

#### Omit

- Moderators "Flight plan for Daddyhood" biography.

#### Add

- Overview of the Headquarters template.
- What does RSE apply to other technologies beside pump and treat?

### **Comments on instructional methods and materials**

- Case study overview very good!
- Boomsnub case study and Deer Park case study were very useful.
- Case studies were excellent (*Two responses*) and showed a variety of applications of the RSE process.
- Nice mix.
- Good and technical in a friendly manner.
- Informative session! Case studies made a strong case for RSE. Presenting RPMs make a strong case for doing RSEs.
- Follow-up NARPM materials will be helpful.
- Please provide RSE report template with course presentations on NARPM Web site.
- Copies of slides would have been useful.
- No materials provided in hard copy which was unexpected. (*Two responses*)
- More time for discussion!
- Not much discussion time allowed especially for first couple of speakers.
- The course handout and booklet would have added value to the course by allowing students to minimize note taking and use as a reference at work. (*Three responses*)
- Suggest the instructors include a class exercise for other ways to get the audience more involved in the course.
- One less talk would allow for more dialogue with audience. (*Two responses*)
- Pace was somewhere between good and too slow.
- The "Flight plan for Daddyhood" handout should not be included in the next RSE training course. It was supposed to be humorous, but could be perceived as politically incorrect and inflammatory to another government agency that was mentioned in the handout.
- Emphasize before and after costs data.
- Diana Cutt did not make it to NARPM so there was extra time for summary and questions.

### **Comments on course name and abstract expectations**

- RSE case studies were presented.
- The name itself does not specify "ground water." I thought other treatment systems would be evaluated (i.e., soil treatments).
- If presented again, describe session better. And while many people had not seen this specific presentation, maybe describe that it is meant for inexperienced RPMs or RPMs with first time ground water sites. Much of the information was straightforward or "common sense" for experienced RPMs.
- Thought the actual steps of the process would be covered.

**Comments on suggestions for future offerings of this course**

- The next steps would be a detailed optimization with the net result being shorter time frames for site clean-ups.
- Might be better if there is a detailed summary of all sites studied to show differences and ranges of implementation.
- It would be nice if it could be paired with additional optimization and review of old site efforts.
- Tie it in with five year review training and expand.
- If already given at various NARPM conferences, do not need to again.
- Needs to evolve.

**Comments regarding the moderator**

- Alvey has great delivery. Friendly, sensible, smart, experienced. Great choice of moderator. (*Six responses*) He deserves another on-the-spot award!!
- Rob Alvey helped segue for each speaker
- The moderator had good stories to share regarding a site case study.
- Well done!

**Summary of the Session**

The moderator summary for this session was not provided.

## Superfund and Federal Facilities Cross Program Revitalization Measures

Monday, May 21, 3:00 p.m. to 4:30 p.m.

Presenters: Melissa Friedland, EPA OSRTI  
 Trina Martynowicz, EPA FFRRO  
 Brendan Roache, EPA FFRRO

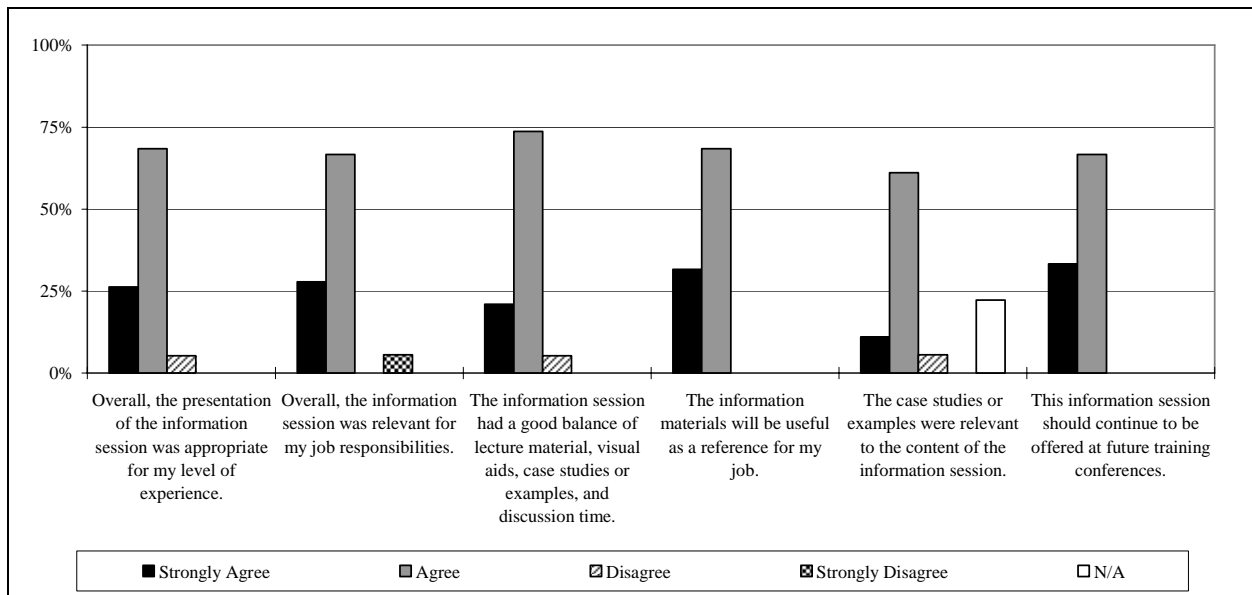
The *Superfund and Federal Facilities Cross Program Revitalization Measures* information session summarized the new reporting requirements for identifying EPA’s *Superfund and Federal Facilities Universe, Acres Protective for People under Current Conditions* and *Acres Ready for Anticipated Use*. Discussion during the session familiarized regional program managers with the new *Guidance for Documenting and Reporting Performance in Achieving Land Revitalization* developed by EPA’s OSRTI and EPA’s FFRRO, data collection requirements, and the CERCLIS module. The session outlined procedures for identifying eligible acreage, evaluating when entire sites or portions of sites satisfy the measures, and clarifying how these new performance measures relate to existing metrics. In addition, the session demonstrated the new CERCLIS screens for the measure.

### Participation and Average Grade

No. of Preregistrants	No. of Students Who Signed Session Roster	Number of Evaluation Forms Submitted	Average Grade
48	44	19	4*

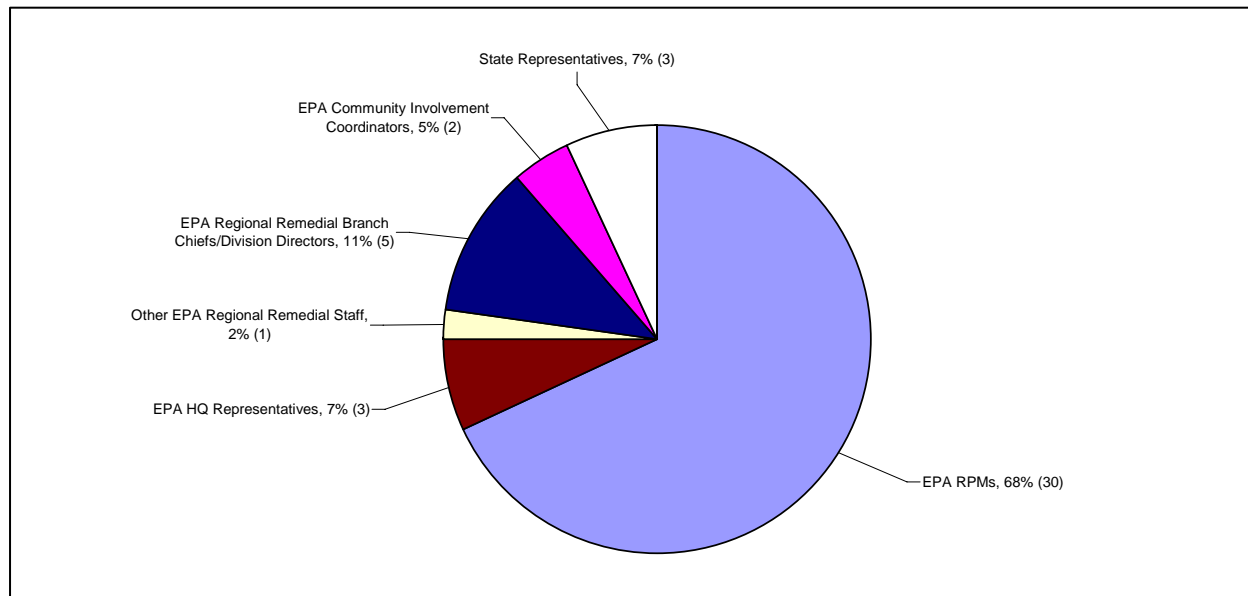
\* The grade displayed is the average of the grades identified on the evaluation forms based on a 5-point scale. The average is calculated by rounding the raw average to the nearest integer (for example, 3.6 rounds to 4).

### Summary of Evaluation Results for the Superfund and Federal Facilities Cross Program Revitalization Measures Information Session



The pie chart below illustrates the percentages of students for the information session by job title. EPA RPMs represented 68 percent of the students.

**Students by Job Title for the Superfund and Federal Facilities Cross Program Revitalization Measures Information Session**



Summarized below are the written comments provided on the evaluation forms. Similar observations have been combined and paraphrased. Comments submitted by a single respondent are recorded below.

**Comments on relevance to job responsibilities and experience level**

- I am more confused in some respects.
- My particular NPL site is not far enough along yet. Good to understand for planning purposes.
- Most are okay.

**Comments on course content**

Shorten

- Actual CERCLIS data entry.

Add

- More real examples followed all the way through and for different types of sites.
- Needs a hands-on training session.

**Comments on instructional methods and materials**

- Since CERCLIS is not ready yet, it is hard to take this as the final word.
- Presentation on CERCLIS inputs without actual screen (from handouts only) was of limited value.
- Confusing presentation. Felt that Headquarters has not fully considered implications at this measure.

**Comments on course name and abstract expectations**

- Abstract kind of was helpful, but need more.
- Provided useful information as to anticipated reporting measures and reporting dates.

**Comments on suggestions for future offerings of this course**

- Only if new information is provided or updates are needed.
- It seems to change periodically. Please keep us up to date.
- Session on performing measures should be included especially as they are modified, added, subtracted, etc.
- This information must be in the system by summer 2007, but it might be useful for new RPMs.
- Superfund desperately needs a CERCLIS training course. Two to three days of hand-on training on doing everything! Every month Headquarters wants something new entered in CERCLIS but the training is piece meal and driven by the flavor of the month.

**Comments regarding the moderator**

- More facilitation would have been helpful to limit disruption by overly site specific related questions.

**Summary of the Session**

The moderator summary for this session was not provided.

## We Want You! Why the Response Support Corps Needs RPMs

Monday, May 21, 10:15 a.m. to 12:00 p.m.

Presenters: Sherry Fielding, EPA Office of Emergency Management  
Michael Torres, EPA Region 6

The *We Want You! Why the Response Support Corps (RSC) Needs RPMs* information session addressed the crucial roles filled by RPMs, both historically and with a view for the future. This information session discussed why RPMs are key components and especially well suited for membership with the RSC. Current RPMs who have been involved in past responses – or who will hold key leadership positions in future responses – discussed their experiences. In addition, the Office of Emergency Management provided the latest information regarding the RSC, including contact information for regional RSC coordinators. The following topics were discussed:

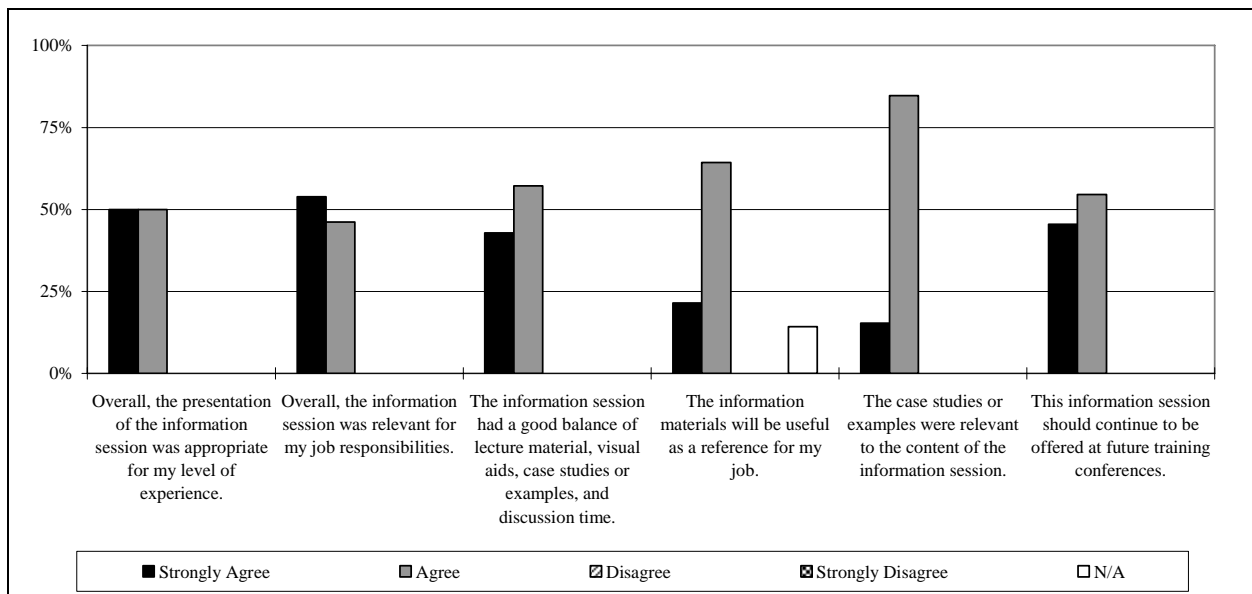
- Emergency response – it is an agency responsibility.
- Homeland security performance measures and the link to the RSC.
- RPMs who are also RSCs – and glad they are!
- How RPMs can be involved in future incidents of national significance.
- Potential involvement in training and exercises.

### Participation and Average Grade

No. of Preregistrants	No. of Students Who Signed Session Roster	Number of Evaluation Forms Submitted	Average Grade
13	17	14	4*

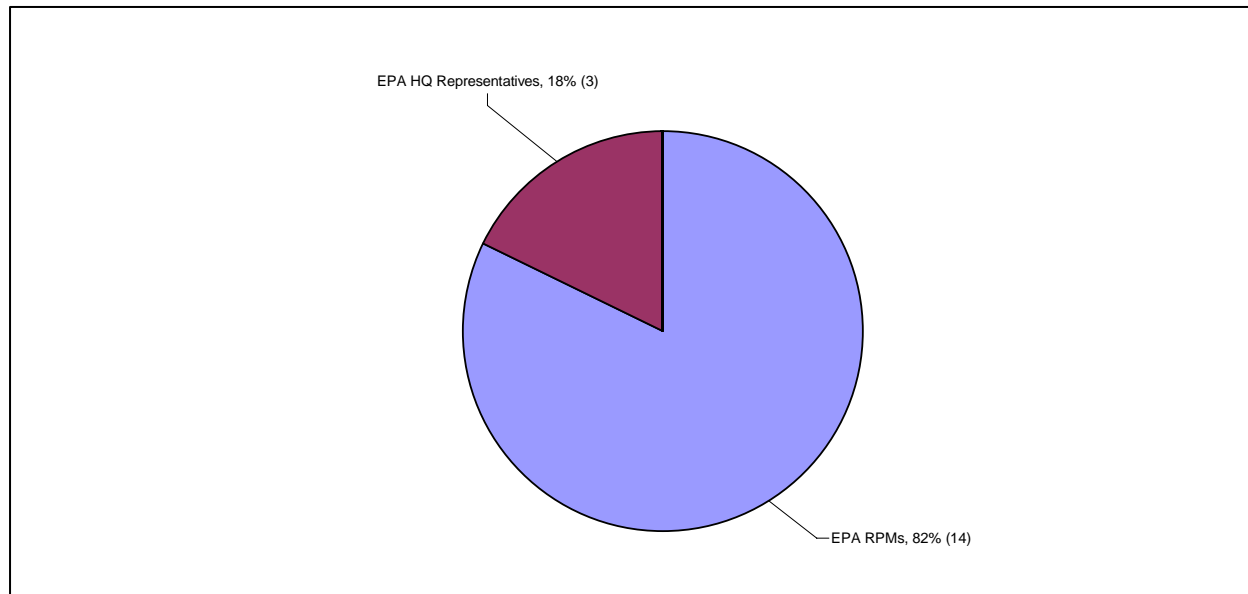
\* The grade displayed is the average of the grades identified on the evaluation forms based on a 5-point scale. The average is calculated by rounding the raw average to the nearest integer (for example, 3.6 rounds to 4).

### Summary of Evaluation Results for the We Want You! Why the Response Support Corps Needs RPMs Information Session



The pie chart below illustrates the percentages of students for the information session by job title. EPA RPMs represented 82 percent of the students.

**Students by Job Title for the We Want You! Why the Response Support Corps Needs RPMs Information Session**



Summarized below are the written comments provided on the evaluation forms. Similar observations have been combined and paraphrased. Comments submitted by a single respondent are recorded below.

**Comments on course content**

Lengthen

- o More specific examples of roles and responsibilities of ICS.
- o Actual work and tasks during responses.

**Comments on course name and abstract expectations**

- I was hoping for more information on the training that is offered and needed to be taken to become a member of the response corp.

**Comments on suggestions for future offerings of this course**

- If updates to the program.
- More RPM and OSC mixing.

**Comments regarding the moderator**

- Good balance of Headquarters and regions presenting. Very enlightening question and answer session.

**Additional Comments**

- Will sign up to be part of RSC.

**Summary of the Session**

The moderator summary for this session was not provided.