

Summary of the National Meeting Of Remedial Project Managers

**Held March 17-20, 1992
In Atlanta, Georgia**

N A R P M

National Association of Remedial Project Managers

in March 1993 and hope to improve on our very successful 1992 meeting. Should you have any questions regarding NARPM or the National Meetings, please contact one of the National Co-Chairs. Our telephone numbers are as follows:

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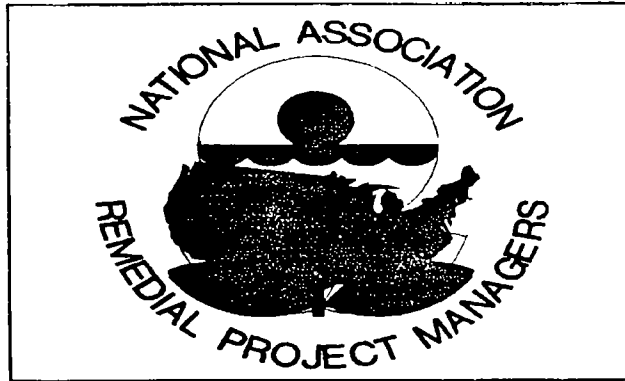
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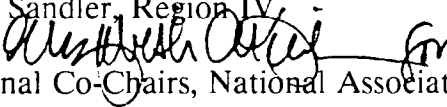
cc: NARPM Regional Representatives, Regions I-X



September 1, 1992

MEMORANDUM

SUBJECT: Summary of the Third Annual National Meeting of Remedial Project Managers, March 1992

FROM: Cathy Gilmore, Region VI
Elizabeth Keicher, Region IX
Dion Novak, Region V
Steve Sandler, Region IV

National Co-Chairs, National Association of Remedial Project Managers

TO: Addressees

In March 1992, nearly 100 Remedial Project Managers (RPMs) and 30 EPA Headquarters representatives met in Atlanta, GA, to participate in the Third Annual National Meeting of RPMs. Organized by the National Association of RPMs (NARPM), this year's meeting culminated nearly a year of incredible growth for NARPM as an organization. In developing this Third Annual Meeting, NARPM emphasized the new direction the Superfund program is taking. The focus of the panels and the majority of the case studies was streamlining the Superfund process: identifying areas where streamlining efforts have been successful, and where we have both a need and an opportunity for improvement. RPMs also presented site- and issue-specific case studies in the context of several of the panel discussions.

The enclosed document presents summaries of the panel discussions from this year's meeting. The accompanying document, "Program Agenda and Abstracts", contains abstracts from the case studies prepared and presented by RPMs from across the country.

We hope these summaries and abstracts give you a better sense for the type of interaction and information exchange that occurs at our annual meetings. NARPM has received considerable praise for the content and conduct of the Third Annual Meeting. We are currently planning our Fourth Annual meeting to be held in Seattle, Washington

Foreword

In March 1992, nearly 100 Remedial Project Managers (RPMs) and 30 EPA Headquarters representatives met in Atlanta, GA, to participate in the Third Annual National Meeting of RPMs. Organized by the National Association of RPMs, fondly referred to as NARPM, this year's meeting culminated nearly a year of incredible growth for NARPM as an organization. Significant RPM participation during and following the 1992 National Meeting helped us move closer to achieving the goals established when NARPM was first organized: to develop a national vehicle for the exchange of professional expertise and work experience among RPMs; establish permanent panels and workgroups to explore and resolve, if necessary, recurring site remediation issues; provide a single cohesive voice to communicate and work with Headquarters on policy and guidance issues; and provide opportunities for RPMs' professional growth in the areas of technology and management.

Richard Guimond, National Superfund Director, kicked off the 3rd annual conference. During his keynote address, Guimond focused on the vital role RPMs play in making the Superfund Program more effective, efficient and equitable. Guimond called RPMs his "cadre of trouble-shooters" upon whom he must rely to get feedback on whether Headquarters' policy and guidance works in the real world. The National Meeting is one means for RPMs to interact directly with Headquarters on such issues.

In developing this Third Annual Meeting, NARPM emphasized the new direction the Superfund program is taking. The five standing panels from previous years -- RI/FS, RD/RA, RD/RA Enforcement Issues, Multi-Source Contaminated Aquifers, and Federal Facilities -- convened again this year. The focus of the panels and the majority of the case studies was streamlining the Superfund process: identifying areas where streamlining efforts have been successful, and where we have both a need and an opportunity for improvement. This year's agenda included several new panels on a trial basis -- Groundwater Issues, Ecological/Risk Assessment Issues, Community Relations Issues, Expedited RD/RA, and Case Study Panels. Each of these new panels is based on several case studies concerning a similar site type or issue. The intent of these trial panels is to focus the discussion to address a specific problem or issue raised by the case study(ies). RPMs presented site- and issue-specific case studies in the context of a panel discussions.

A new and very well-received feature of this year's conference was a tour of the EPA Environmental Research Laboratory in Athens, Georgia. Lab staff provided RPMs with an all-day tour of the lab facilities on March 17, the day before the conference officially began. About 25 interested RPMs witnessed field sampling demonstrations and lab sampling techniques and visited the Ecological Support Center, where they learned about various sediment, fish and invertebrate sampling techniques.

The following pages present summaries of the panel discussions from this year's meeting. The accompanying document, "Program Agenda and Abstracts", contains abstracts from the case studies prepared and presented by APMs from across the country.

NARPM COUNCIL

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Panel Summaries Of The National Meeting Of Remedial Project Managers

**Held March 17-20, 1992
In Atlanta, Georgia**

N A R P M

National Association of Remedial Project Managers

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RD/RA Enforcement Summary Report

Moderator: Cindy Nolan, Region V
Panel: Kathryn Boyle, Headquarters
Lisa Carson, Region II
Patti Collins, Region IX
Bob Guarni, Region III
Tinka Hyde, Region V
Sharon Jaffess, Region II
Marilou Martin, Region V
Neilma Senjalia, Headquarters
Larry Starfield, Headquarters

Recommendations of the RD/RA Panel from the NARPM Conference

There is complete agreement between NARPM and Headquarters that remedial action completions should be emphasized and hold our attention not just as a current initiative, but as the long term goal of our program. The RD/RA panel met to consider a number of current topics along this line. Unfortunately, there was not sufficient time to consider all the topics we would have liked.

The following recommendations are offered:

1. Shorten or skip RD/RA negotiations. We found that in many circumstances, it was appropriate to consider using §122(a) of CERCLA to shorten or eliminate the 120 day negotiation moratorium. We perceive the roadblocks to using this tool to be:

a. The guidance. The guidance creates more narrow circumstances than the law itself. The guidance suggests EPA consider past dealings, lack of good faith and on-going negotiations. NARPM believes that past dealings should include national experience with a major PRP who's corporate philosophy is generally known. "Good faith" is so broad, Regional attorneys will consider any gesture as "good faith." Therefore, there is a strong bias against its use.

b. No incentives for Regional Counsel or DOJ to speed the process. Generally, most efforts to streamline the process over the years have been technical in nature, or enforcement support oriented (i.e., PRP search process). Regional Counsel and DOJ's attitude focuses on getting a (perfect and "fair") settlement, not cleaning up a site. That focus has deterred effective project management.

Recommendations:

- a. The guidance be revised to emphasize.....
- b. Incentives be created for getting into the field, not for getting a settlement, such as.....

2. Prepare for use of enforcement tools for poor performance during RD/RA to ensure that work proceeds in a timely and protective manner. This is the next area of emphasis in the evolutionary chain of the program. If only a few sites of many sites in construction have performance problems, criticism of EPA oversight will again impede our ability to manage the program well. Use of 106 and 109 penalties should be encouraged early in the RD/RA process so that it sends the message early to PRPs - EPA will not tolerate poor performance.

The current program weakness is perceived as a lack of descriptive penalty policy. The current 106/107 penalty policy focuses more on schedule, with negligible reference to performance.

Recommendations:

a. A single CERCLA penalty policy matrix should be used for both 106 and 109. The existing 106 policy matrix is fine for 109 use, but it needs more examples on the circumstance for use. In addition, it should contain a general description of what makes CERCLA performance problems significant. The latter part is important to setting the mindframe of an administrative law judge. There are many considerations which set CERCLA apart from actions under the Clean Water Act, RCRA, etc., such as: its higher statutory limit (25,000/day, but 75,000 for second or subsequent violations), nature of the work (environmental uncertainties, requirements to comply with all environmental laws, general lack of long term data supporting violation), greater culpability of environmental contractors who qualify for the work, in part due to their knowledge of requirements, nature of work under a federal decree or order (not just permit violations). The RCRA penalty policy is a good example to follow.

b. Address perceptions that penalties are a long, involved process (109(b) easier and faster than 109(c)). This discourages RPMs and attorneys from adding to their workload by pursuing them. Enforcement work is generally not adequately considered in the work load models.

c. The new RD/RA Streamlining Guidance incorporates Regional comment. Although this subject was discussed on the RD/RA panel, no further recommendations are offered at this time.

d. Join the Program and Enforcement staff into one management system at the Headquarters level. This is not a politically correct recommendation, but a

very valid one from a program implementation standpoint. This recommendation is made by various Regions when program improvements requests are made (i.e. 30/90 day studies), but categorically ignored. The arbitrary separation fails to recognize the inherent integration of program and enforcement for all sites. At the RD/RA phase, the separation of powers becomes more obvious, often working at cross purposes and failing to see the "big picture", instead focusing on who's shop the issue falls into. "Streamlining" begins at home.

e. Develop guidance on contractor disapproval. Our failure to disapprove any contractor for poor performance reinforces the acceptability of shoddy, biased and "nickel and dime" products. EPA's reluctance to disapprove work based on poor performance for other projects makes good project management by an RPM almost impossible. This is true for RD/RA as well as for RI/FS. Until EPA adopts a "get tough" stand with PRP contractors, RPMs are left with meaningless threats and twice the work.

Groundwater Issues Summary Report

Moderator: Gail Scogin, Region IV
Panel: Turpin Ballard, Region V
Kurt Lamber, Headquarters
Case Study Presenters

Summary

The Groundwater Issues Panel conducted at the 1992 NARPM Conference included five case studies and a summary discussion of the presentations. The case study presenters identified several methods for improving and streamlining Superfund groundwater investigations.

Dennis Dalga described the use of the lead-screen auger for sampling groundwater to depths of 200 feet or more. This sampling technique, which costs less than monitor well installation and surpasses the capabilities of cone penetrometer sampling, involves the use of a hollow stem auger with screen openings which allow for sampling of the aquifer.

Mohammed Slam and Jay Silverman presented the results of their research to determine effective sampling techniques for volatile organic compounds (VOCs) in groundwater. After evaluating various pumps in an effort to collect sediment-free samples, they selected a bladder pump. The sediment-free samples collected using the bladder pump showed higher VOC concentration than the previous sediment-laden samples collected using more conventional methods. The revised sampling techniques resulted in a change to the selected remedy for the site. Instead of a "no action" alternative, the analytical data now support a requirement for treatment. The authors also noted that dioxin concentrations were lower for sediment-free samples, indicating that much of the dioxin may have adsorbed to the sediments.

Mike Fite presented a validation study of an analytical model which was used to develop a soil action level for polynuclear aromatic hydrocarbons (PAHs). The model generated action levels which would protect groundwater from the leaching of PAHs from the soil. In order for the PRPs to be able to use the model, EPA required that they collect leaching data (TCLP) from the site to demonstrate that the model conservatively predicted leaching. The data showed that no leaching occurred from site soils above the risk-derived cleanup level for PAHs. This indicated that EPA and the PRPs can now rely on a single cleanup standard for the site rather than a leaching standard and a risk standard.

In separate presentations, Claire Trombadore and Erna Acheson addressed various issues associated with multi-source contaminated aquifers. Erna discussed and solicited audience input for the handling of coordination problems among the various actors within multiple regulatory and industry parties associated with a multi-source site. Claire described a Cooperative Agreement (CA) awarded by Region 9 to the California State Water Resources Control Board to study and address groundwater contamination in the San Fernando Valley. The State Board had been set up to monitor water quality in separate water quality regions within the state. This CA concentrates responsibility for remedial efforts in one agency, focusing attention on early remedial action rather than the time-consuming task of first identifying and coordinating the various CERCLA, RCRA, and non-regulated sources.

RECOMMENDATIONS

The issues raised in the Groundwater Issues Panel can be presented to existing EPA organizations for further consideration as follows.

Groundwater Treatment Forum:

- innovative sampling approaches
- development of leaching-based cleanup levels to protect groundwater

Multi-source Contaminated Aquifer Workgroup:

- use of state resources and existing regulatory structures to address multi-source groundwater remediation

Multi-Party, Multi-Source Contaminated Aquifers Summary Report

Moderator: Patti Collins, Region IX
Panel: Cindy Nolan, Region V
Tinka Hyde, Region V
Marilou Martin, Region V
Rob James, Region IV ORC
Larry Starfield, OGC

Issues:

- A. EPA's role and authority to incorporate and coordinate work by other government agencies.
- B. How and when to add PRPs that are not mentioned in the site listing.
- C. How to divide the tasks among the PRPs, including the use of partial settlements for RD/RA.
- D. How to handle commingled CERCLA and non-CERCLA chemicals.
- E. What to do with "orphan shares" or abandoned properties.
- F. The "mine fields" of the "technical impracticability" waiver.

Discussion:

The discussion of each of these issues focused on the material needed for the development of guidance for these sites. The guidance development is currently underway. Each of the issues A. through E. above will be covered in the forthcoming guidance.

The issue of "technical impracticability" waivers was discussed as a separate issue. Across the country RPMs have seen attorneys encouraging PRPs to seek a waiver as a way to walk away from the site. Model language proposed for inclusion in RODs and consent decrees is not only cumbersome, but will be used by PRPs to attempt to limit EPA's discretion in managing sites. More than on any other kind of site, attorneys and PRPs at multi-source sites use EPA guidance and model language against the RPM by attempting to limit EPA scope of options in managing the sites. These attorneys and PRPs always consider EPA guidance and model language as negotiable in their favor.

Recommendations:

No recommendations are needed for the issues A. through E.

The panel recommends that inclusion in RODs or consent decrees of language about the technical impracticability waiver be optional.

Case Studies Summary Report

Moderator: Shawn C. Luetchens, Region IV
Panel: Randy Dominy, Region IV
Joe Tieger, Headquarters
Anne V. Spencer (Region VIII)
Katherine Moore (Region IX)
Barbara Maco (Region IX)
Richard Procunier (Region IX)

Our Case Study Panel Group had four rather divergent presentations.

Katherine Moore and Barbara Maco presented base closure issues in California detailing their work on closing two of the eight military bases closing in California.

Anne Spencer detailed the importance of balancing priorities in her Superfund work.

And finally, Richard Procunier highlighted the challenges of revegetation at abandoned asbestos mine Superfund sites.

Each of the RPMs and sites involved faced incredible obstacles that required ingenuity, team building and stamina to solve. Sounds just like Superfund doesn't it?

Katherine and Barbara are facing multiple bureaucracies. In fact, they are facing tiers of bureaucracies, each with its own special interest and unique set of problems. They are facing the enormous challenge of coordinating all these agencies, laws and interests into some sort of cohesive unit with the common goal of transforming these bases to private use for the economic help of the base-dependant communities while providing the proper environmental investigation and cleanup in time for this transfer to occur.

Anne has faced the unsavory task of finding her own funding within the Agency, through the Water Program, to carry on the Superfund process when her site funding was cut back do to Regional ranking for distribution of limited resources.

Richard had another kind of struggle, a struggle with the environment itself. With the task of revegetation at asbestos mining sites located in somewhat hostile soil and weather conditions.

All of these problems had to be faced with creativity, coordination and finally communication.

Creativity plays a big part in these solutions. Although we sometimes feel as if the constant onslaught of new and changing guidance and models has us somewhat trapped in the Superfund mire, in the face of these challenges so common to Superfund sites creativity make the difference. This is evidenced by the unique solution Anne implemented by coordinating with her Region's Water Division to find the monetary and enforcement resources necessary to keep her site moving.

Coordination can in no way be better demonstrated than by the immense task Barbara and Katherine have faced with all of the various government bodies that have their hands in on the base closures. This not only includes the EPA and DoD but also all of the various political and economic agendas of the state, the counties and the local governments, which are all vying for their own political and economic benefits. These tasks must take into account not only the extremely important environmental questions but also the equally compelling economic priorities of the base dependant residents.

Finally, communication is a must. As in the situation of the revegetation of the enormous slag piles left behind by the asbestos mines, communication can make the difference. When there is a solution that has been implemented but does not take hold, the only way to proceed is through communication of new ideas and resources which may make the difference. These ideas can come from any number of sources but only by initiating the critical communication will solutions become apparent. This became important in the struggle to get successful revegetation of the slag piles in an unhospitable climate. Even as the discussion proceeded, a variety of resources and options were presented by the panel and by the RPMs participating. This is the obvious success of tools such as NARPM itself.

Through the use of creativity, coordination, and communication even the Superfund process with its unyielding tangle of technical and legal pitfalls can proceed quickly and effectively.

RI/FS Summary Report

Moderator: Damian Duda, Region II, Moderator (212-264-9589)
Panel: Lisa Nichols, Region III (215-597-3216)
Dennis Dalga, Region V (312-886-5116)
Steve Jones, Region VII (913-551-7755)
Kevin Mayer, Region IX (415-744-2260)
Trish Gowland, OWPE, EPA-HQ (202-678-8622)
Tish O'Connor, OERR/HSCD, EPA-HQ (202-678-8370)
Steve Caldwell, OERR/HSED, EPA-HQ (202-260-8295)

The goals of the Remedial Investigation (RI)/Feasibility Study (FS) panel were 1) to address issues and/or problems which confront the Superfund remedial project manager (RPM) from both the enforcement side and the remedial/fund lead sides of site management, 2) to present any case studies related to RI/FS issues, 3) to present any recent policy and/or guidance which is or will be available to the RPMs for the purpose of assisting in streamlining RI/FS's and in securing remedy selection, 4) to identify areas where major improvements can be made in the RI/FS process, and 5) to implement any subsequent recommendations. The resulting discussion was very interactive between panel members and the audience.

The panel discussion began with the introductions of panel members and a brief overview by the moderator of the suggested topics. The focus of the panel was to discuss/suggest ways to streamline and improve the overall RI/FS process. The topics for examination were directly related to the streamlining and improvement process.

An overview of Expedited Site Inspections (ESIs) was presented by Steve Caldwell. ESIs stem directly from the Superfund Accelerated Clean-Up Model (SACM) which is being implemented to streamline the Superfund process. The concept is to have the majority of the remedial investigation completed prior to a site being listed on the National Priorities List (NPL). Steve expects that the RI/FS timeframe could be shortened over a year (from four to nine quarters depending on the site) with substantial cost savings. The key is to take a large number of sampling events in order to characterize the site as completely as possible and to begin the RI as soon as NPL listing is imminent. A special notice letter could go to Potentially Responsible Parties (PRPs) prior to any hard data being collected. Features of the program would be early actions, e.g., supplying drinking water expeditiously to areas with contaminated ground water. The ESI should eliminate duplication of work plans, sampling plans, health and safety plans, etc. RPMs commented that potential problems in implementation could stem from possible delays in the NPL listing process, resource and budget constraints, and inadequately prepared ESIs. Another potential problem could arise with respect to PRP oversight before a site is listed. At present, pilot ESI studies are being developed in Regions II, VIII, and IX.

The Risk Assessment Process was addressed through a case study and subsequent discussion. Kevin Mayer's case study was entitled Evolving Approach to Streamlining the Risk Assessment Process at Southern California Groundwater Contamination Sites. Kevin identified three California sites of concern. First, a full baseline risk assessment was performed for the San Fernando site. Second, an exposure assessment/toxicity assessment was completed for the San Gabriel site. For the third site, San Bernardino, previous risk information for the other two sites was used, further simplifying the process to establish remedial action objectives and cleanup goals directly from an MCL-driven Record of Decision (ROD). Kevin showed that this effort effectively streamlined the RI/FS activities for these three very large sites. Overall, groundwater decisions were not made strictly on risk assessment information but were developed from varying degrees of qualitative versus quantitative information. The focus was to simplify the process and use the most reliable data in conjunction with a brief risk discussion.

Subsequent to Kevin's presentation, the discussion was directed to other risk-related issues. One RPM identified a Florida site with alternate concentration limits and dioxin in groundwater problems. The risk assessment was held up due to problems of state concurrence, development of surface water standards for deeper aquifers, potential implications for other related sites, and the technical impracticability of complete groundwater restoration. As a result of technical impracticability was, in fact, the driving force for the site remedy, not the risk assessment. Other RPMs made suggestions to reevaluate the ROD and to include states in the risk assessment and ecological assessment process. Another RPM identified an issue regarding proposed state soil cleanup standards (New Jersey). This subject prompted serious discussion, especially as related to other media and to the potential elimination of the risk assessment as a driving force for the remedy selection, since standards related directly to toxicity and mobility will be actually promulgated for certain contaminants. EPA-HQ indicated that a national guidance for action levels/cleanup levels for soils directly related to groundwater pathways was being developed and should be available within a few months. Guidance on sediment cleanup levels is also being considered.

Presumptive remedy was discussed by Tish O'Connor and related RI/FS planning and remedy selection, as identified in the 30-Day Study. The main thrust of presumptive remedy is to develop boilerplate language for workplans through RODs for comparative sites, e.g., wood-preserving sites, PCB-contaminated sites, battery sites, etc.. At present, four candidate site types are being considered for pilot projects. The idea is to set up cleanup goals rather than remedies, per se, with the potential of eliminating the nine criteria for comparative sites. The need to develop national expert teams for specific site types was stressed. The PCB site type, in particular, was identified as appropriate to presumptive remedy format. Presumptive remedies can be an excellent time-saver, since development of cleanup levels can cut down on risk management decision-making and PRP negotiations, and FSs can be eliminated. RPMs identified problems inherent in the process: 1) when a site does not conform to the remedy, variations to it must be documented in

a Federal Register notice which can involve a major time commitment and a concentrated technical effort; 2) public comment could become unwieldy and is a major consideration; and, 3) the elimination of an FS does not really save time, since FS development is a comparatively quick process in relation to the RI development. Experienced RPMs also indicated that most sites will not fit the model. On the whole, RPMs are not in favor of the single remedy concept but did offer support for 1) amending the ROD guidance to ensure remedy consistency, 2) improving the RI/FS planning process with tighter scheduling, and 3) developing effective technical expert teams to assess the selected comparative site types and remedies. Tish indicated that the preliminary evaluation of the presumptive remedy program will be presented in an upcoming News Alert.

Some discussion revolved around Model Consent Orders/Unilateral Administrative Orders specifically geared to the enforcement of such orders in order to maintain more realistic project schedules and to secure penalties for non-compliance where available. The RPMs also suggested that procedures be developed to assist in the enforcement of orders, both with respect to scheduling and penalties. Penalties guidance for projects in Remedial Design/Remedial Action (RD/RA) is due out soon; there was a suggestion that RPMs work with their regional attorneys in adapting relevant aspects of this for the RI/FS enforcement.

The next section of the discussion dealt with potential improvements in the RI/FS process.

Trish Gowland identified the new National Database Field (NDF) which is being developed as a response to the criticisms from the General Accounting Office (GAO) on disseminating accurate information on the Superfund program and its successes. This HQ's supported database will be developed over the succeeding months, in order to clarify existing and future site data with respect to the entire RI/FS process, including RODs. Trish indicated that this is a proactive method for addressing the GAO. The new NDF was not well received by the RPMs. Although some relief may be available from the RPMs if contractors are able to input the data, this is not guaranteed since the RPM will still have to oversee the contractors work and QA the data input anyway. The RPMs recommended that HQ coordinate all potential and existing surveys, questionnaires, reporting forms, and associated databases so that RPMs do not have to "reinvent the wheel" with each request. The RPMs were also concerned with how this will interact with existing CERCLIS and WASTELAN databases, as well as the National Priorities List Notebook which is now available to the regions. The NDF will attempt to direct more pertinent site information into a central database.

SARA subpoenas deal with the issue of subpoenaing former plant workers, plant managers, and others who worked at a facility in order to secure "first hand" technical information on past operations and production activities for select Superfund sites. Brad Bradley (Region V) indicated that, since we have this legal option available to us, we should use the subpoena option to secure a valuable

addition to other RI/FS information/data, potentially shortening the RI/FS process. The panel recommended that the regional attorneys and RPMs try to use the SARA subpoena whenever feasible.

The Cleanup Information Bulletin Board System (CLU-IN), formerly the OSWER Bulletin Board, is designed for hazardous waste professionals, including RPMs, as another potential source of information and answers. Features of CLU-IN include electronic messaging, bulletin development, downloading of files, online databases, and a conference network. The use of CLU-IN for RPM conferences can be invaluable to secure up-to-date information on specific site questions or activities. Currently, there is an existing enforcement conference on the network. The panel recommended that NARPM set up an RPM conference on CLU-IN, including appropriate logon procedures so that RPMs nationwide can use the network freely. Dan Powell of the Technology Information Office can be contacted for more information at (703) 308-8827.

Overview of HQ's Superfund enforcement/fund lead regional coordination was discussed in an effort to see if those fund and enforcement forces could be further joined in an attempt to pattern themselves after the regional set-up of a single contact per site whether enforcement or fund. Overall, RPMs have found most regional coordinators very helpful. A joint approach between OERR and OWPE is recommended which would result in more consistency among regional coordinators, both from a technical and administrative level. HQ indicated that new initiatives for team development are being considered.

Tish O'Connor discussed Non-contiguous Site Strategy guidance. A short sheet will be published within the month to announce this. This proposed guidance offers a simplified method to connect separate sites which require the same remedy, such as incineration for different sites' wastes which have the same contamination/wastes and the same selected remedy. RPMs were supportive of this guidance and suggested that it be coordinated with the multi-source aquifer group in order to ensure consistency of remedy selection.

Overall, this was a well-received panel discussion. A group of major topics confronting RPMs on RI/FS issues were addressed. The panel tried to follow the thrust of Rich Guimond's initiatives which focus on RI/FS streamlining and the 30-day study recommendations for accomplishing this through the use of SACM.

As to continued discussion, any further RI/FS issues will be addressed through the NARPM council as they arise. Any important RI/FS issues will be addressed through the monthly series of NARPM conference calls. The RI/FS panel will not be formally continued as a workgroup. The moderator intends to keep apprised of HQ's new initiatives and will apprise the NARPM Council, accordingly.

RD/RA Summary Report

Moderator: Tom Alcamo, Region V
Panel: Mark Bogina, Region VII
Jon Bornholm, Region IV
Rose Marie Caraway, Region IX
Miguel Cintron, COE
Jim DiLorenzo, Region I
Tinka Hyde, Region V
Phil Rotstein, Region III
Ken Skahn, Headquarters
Anne Spencer, Region VIII

Topic 1 - USACE/USEPA Interface

Miguel Cintron of the USACE - Omaha discussed two new USACE programs called Rapid Response and Immediate Response. Both response actions are time critical removal/cleanup actions that an RPM can use to accelerate site cleanup. Rapid Response usually takes between 30 and 60 days to initiate site activities and Immediate Response only 72 hours. Also, Miguel discussed the changes in the IAG process and using the USACE as the ARC's work assignment manager. Attached is a copy of the overheads used in Miguel's presentation.

Topic 2 - Site Completions and RD/RA Guidance

Tracy Loy, Section Chief of the Design and Construction Branch in Headquarters discussed the importance of site completions. By the end of FY 92, 70 site completions are expected and by the end of FY 93, an additional 130. Tracy also discussed future guidance and included is a copy of a draft fact sheet titled Remedial Action Report. Handouts attached explain the difference between the three closeout reports and guidance on how to develop them.

Topic 3 - Statement of Work

A summary of Tinka Hyde's presentation on how the different regions handle the statement of work is below:

Background

Region V's relationship with DOJ over the past 2 to 3 years has declined significantly, in part due to problems with DOJ's adherence to the October 1990 Strock Memo.

As part of a National Initiative to improve coordination between DOJ and EPA, Division Directors (Regions V and III) attended a meeting at HQ with the Department of Justice in the fall of 1991. A number of issues were identified, including RD/RA Statements of Work (SOWs). Due to the significant problems Region V has experienced with DOJ on this issue, our Division Director volunteered to take the lead on SOW issues.

Project:

At the time, the Regional SOW Workgroup was working on updating our Regional SOW and volunteered to take the lead on this project. First, we conducted a National Survey to determine if other Regions were also experiencing problems with DOJ (we had been told that our problems with DOJ were unique). The Questionnaire focused on:

- What were the Regions using for SOW? National
- Model/Regional Models/Examples. Copies Rec'd
- How specific were their SOWs and did they have problems with enforceability.
- Was the SOW negotiated?
- Adherence to Stock Memo by Region and DOJ Opinions on National Model SOW/CD
- Suggestions for improving the process.

The second step is to do a comparison of the various Regional SOWs, including the National Model to determine if there are any general trends. Finally, make recommendations to our Division Director for possible solutions to the problem.

Results of Survey: Presented at Branch Chief Meeting Nov. 1991.

Use of Model SOW: The majority of the Regions (8) either have their own model or examples SOWs that they use. In general, the SOWs tend to be site specific, at least in terms of the performance standards. However, the degree of detail varies somewhat among the Regions.

Specificity of SOWs: ORC reviews all of the Regions' RODs and the majority (9) of the SOWs. DOJ, on the other hand, only reviews 6 of the Regions' SOWs and no RODs. The types of comments range from general to site specific, depending on the Region (about 50-50).

Disputes and Enforceability: Most of the Regions experienced technical disputes; however, it doesn't appear to cause much delay. The disputes are generally resolved by the RPM and ORC attorney. Most Regions believe that a good SOW helps the dispute process. These results are interesting given DOJ's concern with enforceability of SOWs. The disputes seem to get resolved and many times without the help of DOJ.

SOW Negotiations: Of the Regions using SOWs, all of them negotiate SOWs in order to clarify an issue. The schedule is also negotiated in many cases. The remedy is never negotiated. If negotiations breakdown and a UAO is issued, many Regions will use the pre-CD negotiations SOW.

Process and Timeliness: All Regions tend to follow the Strock/Clay memo procedures; however, DOJ doesn't tend to meet the agreed to deadlines. This particularly true for review of mini-lit report and issuance of Special Notice; lodging; and entry.

National Model SOW: The majority of the Regions do not want a National Model SOW and they also believe that the SOW should be flexible and left to the Region's discretion. It is fairly clear that the Regions want to have significant input on this - issue. Many Regions have worked hard to generate model/example SOWs that work by drawing on the experiences and expertise of their staff. If the National Model SOW is finalized then it should be made optional. National Model CD: Seven of the ten Regions do not believe any more detail is needed for the National Model CD.

Suggest Areas of Improvement: Most of the suggested improvements had a common theme - DOJ and their lack of timely reviews. The suggestions ranged from holding them to the established review times in the Strock/Clay memo to leaving them completely out of the process.

EPA—DOJ - HQ QAT:

All groups agreed that the main problem was differing definitions of quality and timeliness, which leads to significant frustration. Good news is that everyone felt these problems were fixable. Scheduled a 2 day meeting with QAT to resolve problems.

Feedback: Original survey responses from RPMs, branch chiefs, ORC.

Interested in getting feedback from Regions for our SOW project.

Topic 4 - Lessons Learned in Construction

Phil Rotstein of Region III discussed how treatability studies in his stabilization remedy can be used to accelerate remedial action. Mark Bogina of Region VII discussed his experience in implementing an alternative water supply. A rural water district was formed to obtain property titles with no compensation to property owners. It took approximately 2.5 years to get all of the easements. Anne Spencer discussed PRP incentives to speed up cleanup such as breaks on oversight costs. Anne stressed that headquarters was not supportive and better communication was needed between the regions and headquarters.

Topic 5 - Conference Calls on Technology

Headquarters has recently setup a conference call for all the regions on incineration. A recommendation is to continue that for other technologies. Headquarters cannot participate due to manpower requirements, but NARPM would be a great forum to begin getting RPM's talking throughout the nation on design and construction issues.

Case Studies Summary Report

Moderator: Maxwell Kimpson, Region IV
Panel: Elizabeth Keicher, Region IX
Dion Novak, Region V
Cathy D. Gilmore (Region VI)
Fran Burns (Region III)
Brad Bradley (Region V)
Judith R. Black (Region VI)

Presenter: Cathy Gilmore (VI) - Role of Peer Review Committees

Purpose: To establish permanent Peer Review Committees that meet weekly to review and plan. There are currently six committees: RI/FS Planning, RI/FS Review, Risk Assessment, ROD Review, RD/RA Planning, and RD/RA Review.

Recommendations/Conclusion: Peer Review Committees have the benefits of quality work products, regional consistency, and added perspective. Experienced RPMs are selected as chairman, and the chairman may develop expertise. This forum may be useful in training.

Presenter: Fran Burns (V) - Performance Standards

Purpose: To discuss the incorporation of performance standards in the ROD, and to eliminate the need for a Scope of Work (SOW).

Recommendations/Conclusions: The panel and RPMs strongly recommended that the performance standards in RODs be the preferred method. However, the RPM would still have the option of writing a SOW if he wished.

Presenter: Brad Bradley (V) - Construction Complete and Closeout

Purpose: To illustrate a success story and discuss the construction complete process.

Recommendations/Conclusions: The presenter showed the need to oversee the PRP closely on an Enforcement-lead RD/RA. It was emphasized that we must enforce our agreements, assess stipulated penalties, and maintain national consistency in enforcement.

Presenter: Judith Black (VI) - Use of Independent Quality Assurance Team (IQAT)

Purpose: To develop a quality assurance team to increase the efficiency and effectiveness of the remedial process.

Recommendations/Conclusions: The Independent Quality Assurance Team (IQAT) assisted the EPA oversight, and the team was able to increase efficiency and effectiveness. The IQAT could provide incentives to the PRP contractor to improve the quality of their work. The IQAT was financed by the PRPs.

Ecological/Risk Assessment Issues Summary Report

Moderator: Cheryl W. Smith, Region IV
Panel: Rose Marie Caraway, Region IX
David Charters, Headquarters
Karla Johnson, Region V
Bob Koke, Region VII
Elaine Siriano, Headquarters
Julie A. DalSoglio (Region VIII)
Janet Burris (Region VIII)
Alison Barry (Region II)
Cynthia Kaleri (Region VI)

ISSUES:

- **Presentation of time frames of remedial process to community/public**
- **Data needs of Natural Resource Trustees**
- **Absence of various organisms**
- **Clean up levels**
- **Cost of doing adequate ecological assessments**
- **Consistency between handling fund versus enforcement lead projects**

DISCUSSION:

- **Must consider the diversity of the species present at these sites**
- **Perform qualitative wild life survey**
- **Perform surveys (i.e., endangered species)**
- **Utilize other agencies (i.e., U.S. Fish and Wildlife Service) to perform extensive analyses of areas in scoping**
- **Functional levels of contaminants**
- **Quantifiable support for clean up levels**
- **Collect information to reduce uncertainty**

- Long-term chronic issues
 - Should not dwell on these items
 - Concentrate on why certain tasks are being performed and the reasons for performing them

RECOMMENDATIONS:

- Collect data to allow site (or any portion thereof) to be classified as a functional wetland
- Standardize clean up goals for site
 - This is a risk management decision
 - Present rationale on why specific goals were chosen

RESOURCES NEEDED TO IMPLEMENT RECOMMENDATIONS:

- Guidance that explains what an ecological risk assessment is and what RPM's need to get from them
- Discuss risk management
- Need for written guidance and resources
- Use BTAGs (Biological Technical Support Groups)
- Ask if technology has ever been performed before; provide resources for these technologies
- Prepare Ecological Update newsletter
- Create teams from different areas
 - Fish and wildlife
 - BTAG/ETAG
- Obtain Agency's internal policies (i.e., wetlands guidance)
- Obtain Headquarter's contracts -- will assist in identification of items to consider
 - ERT

Federal Facilities Summary Report

Moderator: Craig Brown, Region IV
Panel: Turpin Ballard, Region V
Kathryn Boyle, Headquarters
Paul Ingrisano, Region II
Diana Mally, Region V
Linda Meyer, Region X
Michele Poirier-McNeill, Region X
Susan Webster, Region VI

At the Federal facilities panel, six issues were presented and discussed. For each issue, we began with a 5 - 10 minute presentation by a panel member, followed by an informal discussion open to all in attendance. The following is a summary of conclusions and recommendations for follow-up action that arose from this panel.

1. Assessing Low Probability Hazard Sites - Michelle McNeil, Region 10

Conclusions:

The regions have independently developed a similar approach to screening individual, low level hazard sites based loosely on application of PA/SI methodology.

Region 10 and DOE have taken it a step further and have developed a detailed methods manual which includes establishment of data quality objectives and use of qualitative risk assessments.

Recommendations and Follow-up:

Questions remain on public participation and how to document decisions in the Administrative Record.

Region 10 should provide copies of the manual or an abridged version of the manual to other Regions and HQ.

2. Strict Enforcement of IAG Schedules vs Team Building - Turpin Ballard, Region 5

Conclusions:

Trends seems to be toward IAG parties working as a team and away from EPA and State functioning strictly as "regulators".

Informal agreements among IAG parties to move projects faster than "enforceable" IAG schedules are common. Failure to meet the shorter informal schedules would not trigger penalties.

It is important to define boundaries at initiation of team building and define in writing, the assumptions for meeting the shorter, information schedules.

EPA regulations are seen by some as a barrier to team building.

3. Quality Assurance Issues - Diana Mally, Region 5

Conclusions:

Region 5 has a lengthy formal process to approve non-CLP methods for sample analysis. Region 5 requires lab-specific SOPs that must be approved by the Region 5 QA Officer.

Other Regions appear to leave it up to the RPM to accept or reject use of non-CLP methods on a case-by-case basis.

A member of the audience noted that a task force was established a couple of years ago to develop standard protocols for Federal agencies.

Follow-up Action:

EPA HQ should report the status of the above referenced task force.

4. Risk Assessment Issues at DOE Sites - Craig Brown, Region 4)

Conclusions:

DOE has routinely attempted to inject institutional controls into their baseline risk assessments (BRAs). This is typically done by DOE assuming that the current "controlled" land use remains in effect for some period of time (100 - 300 years) after plant operations cease. DOE could effectively avoid selection of action alternatives for sites contaminated by short-lived radionuclides were EPA to allow such assumptions.

This approach has been uniformly rejected by the Regions as inconsistent with the NCP.

DOE may be attempting a way to circumvent the Regions by developing land use plans for the Weapons Plants which could be used as a basis for establishing current and future land use scenarios used in the BRA.

Follow-up Action:

Region 10 and Washington recently signed an accord with DOE - Handford which prohibits use of institutional controls in the BRA and establishes a risk matrix containing several land uses across three time periods (0 yrs, 30 yrs, 100 yrs). Other Regions who have not seen this should contact the Handford Site Office for a copy.

5. Funding Long Term O & M at DOE Sites - Craig Brown, Region 4

Conclusions:

Due to cost and technical factors, institutional controls, alone or in combination with other actions, will be selected as the response action at many rad-contaminated sites.

Given that funds for site cleanup are appropriated to DOE year by year, there is no assurance that the required funding to maintain institutional controls and provide long term monitoring will be available to DOE in the future.

Can or should EPA sign a ROD which includes long term care and maintenance of institutional controls at DOE site?

Follow-up:

HQ should research and report back to the Regions on the legal implications of co-signing RODS which contain long term care or institutional control provisions without guaranteed funding.

Community Relations Issues Summary Report

Moderator: Laura Williams, Region VIII
Panel: Dion Novak, Region V
Steve Sanders, Region VII
Hank Ellison (Region V)
Cesar Lee (Region III)
Lesley Brunker (Region III)

The Community Relations Panel was a new addition to the NARPM conference this year and was one of the experimental hybrid panels which consisted of presentations as well as directed panel discussion. There were three presentations as follows:

1. COMMUNITY RELATIONS AT THE BUTTERWORTH LANDFILL SITE by Hank Ellison from Region V;
2. EXTRAVAGANT BUT NECESSARY CONTROLS ON SUPERFUND AIR STRIPPER DESIGNS by Cesar Lee from Region III; and
3. WHAT CAN HAPPEN IF YOUR ROD CALLS FOR ONSITE INCINERATION AND HOW YOU CAN (TRY TO) PREVENT IT by Lesley Brunker from Region III.

The panel was moderated by Laura Williams (Region VIII) and included Dion Novak (V), Steve Sanders (VII), and the case presenters above as panel members.

Issues: There were many important issues identified regarding the implementation of community relations at Superfund sites. These include:

- Site community has a negative perception of "the Government" (technical expertise issue);
- Site community has a lack of trust for "the Government" and "Government" control of their lives;
- The State, environmental groups, and/or PRP(s) often have secret agendas and goals which conflict with each other or EPA;
- Site community becomes more interested after the ROD is signed;
- Community Relations causes additional work which requires time, resources, and funding;

- Schedule delays in meeting deadlines due to a previously uninformed or distrustful community
- Dealing with the media community including deadlines, misquotes, and inaccuracies; and
- Additional RPM duties, funding, and resource requirements imposed by large PRP community sites.

Discussion: Several general discussions involved identification of the site community(ies). Many agreed that a site community consisted of anyone who was interested in the site. Of primary concern to Superfund is the identification of those who have the ability to undermine site progress, including the public community, local officials, Congressionals, States, PRPs, environmental groups, and even internal EPA opposition. While these are all valid communities, the focus of this first panel's recommendations were the public community, local officials, and environmental groups.

It was determined during discussion of the presentations that many RPMs had been blindsided by community relations issues because earlier site work had proceeded without mishap. The two most likely times during the Superfund process for these surprises to occur are 1) during initiation of the Remedial Design and 2) when a "new" RPM (new or just an experienced RPM new to the site) was assigned to the site. Many times, these two events were coincidental. As identified in "Issues" above, the community seems to become much more interested and, therefore, more vocal at the post-ROD phase. It may be that this occurs because the community has been "awakened" by the public meeting/proposed plan/media announcements activities which are focused at the site community. If only CERCLA requirements are implemented at a Superfund site, this would also be the first time that the site community at large is directly contacted and informed about the site. While the ROD may proceed to signature without significant public comment, it has been observed that as design and construction become more real, the community becomes much more interested in the details and day-to-day implementation of the project.

It was brought to the panel's attention that community relations, even those minimally required by CERCLA, require considerable effort on the part of the RPM as well as additional resources, funding, and time to complete the Superfund process. It was acknowledged that this appeared to be the case at the outset of a project; however, it was the general consensus from the audience and the panel that the benefit and potential problems solved by a proactive community relations effort far outweighed the initial costs. In fact, almost all issues identified above could be minimized and sometimes reversed to EPA's favor.

The remainder of the discussions were related to the presentations and how negative public sentiment had been changed to some type of informed consent. The methods used to effect these changes included identification of specific community concerns, development of an interactive community relations effort, and continued proactive community relations. The primary tool used in these efforts was the public availability session which often included a focused, well developed presentation. Central to these sessions was the availability of the RPM as well as risk assessment personnel, EPA management, and others who could answer the majority of questions asked by the attending community. Once the community's concerns had been addressed, availability sessions were conducted with a smaller number of EPA personnel. A somewhat related concern was that RPMs/EPA does not get the credit for having made the proactive effort. Instead, Congressionals or environmental groups are often made to look good for "having made EPA be more cooperative." Again, the benefits to EPA outweigh this slight (though internal awards/rewards "for doing the right thing right" could be developed).

Community Relations is one of the few ongoing activities during the entire Superfund process. "It is the single most important thing we do!"

Recommendations: The following recommendations were discussed during the panel and presented to the NARPM conference attendees.

1. Superfund must take a proactive approach to community relations. Anticipate and respond to the community's wants and needs - don't wait for it to explode. This means that EPA cannot wait until the proposed plan phase but must inform and involve the community early in the RI/FS process and continue through RA and deletion.
2. At your meetings with the public, bring appropriate staff to answer the community's questions. EPA credibility is decreased when we "don't know," or have to correct ourselves later.
3. Mandatory training for RPMs in Community Relations and informed consent skills and techniques, not just Community Relations requirements in CERCLA.
4. Provide an open forum for communication between EPA and the community which is non-threatening and provides technical information in terms which are easy to understand. One recommendation is the use of multiple availability sessions instead of the formal and required "public meeting." The physical requirements of public meetings leads to an us-them type of seating and thinking.
5. As mentioned above, recognition and/or awards "for doing the right thing right." This would be hard to implement but would be extremely satisfying to have RPMs rewarded for preventing a crisis.

6. And last, but not least - keep this panel for the 1993 NARPM Conference! It provides a forum for an exchange of ideas, experience, and skills for one of the most critical components of getting sites clean.

Resources Needed to Implement Recommendations:

1. Primarily funding, for: training of RPMs (would be included as part of 80-hour requirement); additional dollars to conduct proactive community relations from early in the RI/FS to deletion of the site; funding for additional resource requirements to provide appropriate staff at availability sessions, meetings, etc.; and awards/rewards.
2. Resources, for: development and implementation of awards; and resource requirements to provide appropriate staff at availability sessions, meetings, etc.

Expedited RD/RA Summary Report

Moderator: Janet Cappelli, Region II
Panel: Bruce Sypniewski, Region V
Bill Bolen, Region V
Neilima Senjalia, Headquarters
Erna P. Acheson (Region VIII)
Douglas A. Bell (Region IV)
Jeff Gore (Region V)
Karen Vendl (Region V)

Panel 6 was divided into two sessions. The first part of the panel discussion was devoted to various case studies. The case studies focused on different methods that were used to either expedite the RD/RA process or expedite the Superfund process to get to RD/RA.

Karen Vendl, Region V, discussed her success with using removal authorities to expedite a remedial action. She discussed how she used the authority explained in OSWER Directive # 9355.0-25A to get local residents onto a municipal water supply. Doug Bell, Region IV, talked about his experiences with a "mega-site" and how he used interim action RODs to accelerate the Superfund process so that the RD/RA could begin. Erna Acheson, Region VIII, shared her know-how on effective management of contractors and establishing a rapport with PRPs to do quick remedial actions at a radium site in Denver. Jeff Gore, Region V, discussed the various mechanisms that were used to streamline the RD/RA process at a Superfund site. Combining the construction bidding process with the RD/RA workplan submittal and approval process and meeting regularly with the PRPs, were mentioned.

The second half of the panel discussion was a presentation by Gary Worthman from the Office of Waste Programs Enforcement in Headquarters. Gary talked about a memorandum which would implement a recommendation of the 30-day study concerning accelerating RD starts. At the time of the NARPM conference, Gary was in the process of writing this memo. He committed to releasing the memo to Regional NARPM representatives so that it could be distributed quicker vs. the traditional trickle down method (Division Directors, Assistant Division Directors, etc.). April 2, 1992 OSWER Directive # 9835.4-2b was released to the Regional NARPM representatives as a result of this request. Regional NARPM representatives should let other RPMs know of the availability of this memo.

National Meeting of Remedial Project Managers

March 17-20, 1992

Atlanta, Georgia

PROGRAM AGENDA AND ABSTRACTS



Sponsored by the National Association of RPMs (NARPM)

Welcome!

Welcome to the Third Annual National Meeting of Remedial Project Managers (RPMs). This meeting has been organized by the National Association of RPMs, fondly referred to as NARPM.

This year's meeting culminates nearly a year of incredible growth for NARPM as an organization. Significant RPM participation during and following last year's meeting has helped us move closer to achieving the goals established when NARPM was first organized: to develop a national vehicle for the exchange of professional expertise and work experience among RPMs; establish permanent panels and workgroups to explore and resolve, if necessary, recurring site remediation issues; provide a single cohesive voice to communicate and work with Headquarters on policy and guidance issues; and provide opportunities for RPMs' professional growth in the areas of technology and management. With increased support from Regional management, RPMs and Headquarters, alike, NARPM has also achieved some important new goals this past year.

Increased visibility and credibility of NARPM in Headquarters: The National Co-Chairs met last fall with Richard Guimond, Deputy Assistant Administrator of OSWER, to discuss NARPM's role as a representative both of RPMs' needs and of RPMs as a valuable resource. Mr. Guimond, in turn, voiced his support of NARPM and its goals in a recent memo addressed to both Headquarters and Regional management. He has further demonstrated his support with his "open door" policy to allow RPMs to communicate problems, suggestions and issues directly to his office through the NARPM Co-Chairs.

Improved communication among RPMs through a national newsletter: The first issue of the NARPM National Newsletter, distributed late in 1991, has received rave reviews from Headquarters, Regional management and staff, as well as from our peers in the National On-Scene Coordinators Association (NOSCA). In order to include conference highlights, the second issue of the newsletter will be distributed shortly after this conference.

Interact directly with Headquarters on issues of importance to RPMs: Mr. Guimond will include several RPMs on his Superfund Excellence Team, which will assist in implementing the goals of the 30-Day Study. Also, we once again welcome qualified and interested participants from Headquarters to our panels at this year's meeting. These representatives have been invited to participate based on their close involvement with Headquarters' work on the particular topic of discussion. Finally, both Mr. Guimond and Headquarters have expressed support for integration of the recommendations of these panels and, potentially, panel members, as well, into new and existing Headquarters workgroups on these topics.

In developing this meeting, we have emphasized the new direction the Superfund program is taking. We have maintained the five standing panels from previous years, as well as the well-received block of site-specific case studies. The focus of the panels and the majority of the case studies will be streamlining the Superfund process: identifying areas where streamlining efforts have been successful, and where we have both a need and an opportunity for improvement. This year we are also sponsoring several new panels on a trial basis. Each of these new panels is based on several case studies concerning a similar site type or issue. The intent of these trial panels is to focus the discussion to address a specific problem or issue raised by the case study(ies). If we effectively address the issue(s), RPMs with this or a similar concern will be able to take back to the Region an immediate suggestion or answer to apply directly to his/her site, ultimately shortening the time required to resolve the particular issue.

The national council will be preparing a summary of the conference for distribution to the Regions and Headquarters to demonstrate the progress made at this meeting. The summary will include not only a synopsis of papers presented, but also issues identified, potential solutions proposed, and solutions successfully implemented to date. Through your active and candid participation in this conference, it will be possible to convey RPMs' highest priorities for Superfund directly to Headquarters.

This year we are very pleased to welcome Richard Guimond as our keynote speaker. Without his support and willingness to maintain an "open door" with RPMs through NARPM, this year's conference would hardly have been possible. special thanks to Mr. Guimond for his continued support of NARPM.

Thanks to all the regional representatives and to everyone who helped to plan the meeting. Special thanks also to all of you for your valuable contributions that will once again make this national meeting a success!

Sincerely,

Randy Dominy
Region 4

Elizabeth Keicher
Region 9

Dion Novak
Region 5

Steve Sanders
Region 7

Laura Williams
Region 8

DISCLAIMER

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AGENDA
1992 NATIONAL MEETING OF
REMEDIAL PROJECT MANAGERS

TUESDAY, MARCH 17

Laboratory Tour

10:30	Depart from the Radisson Hotel via van
12:00	Arrive in Athens Introductions, etc.
1:00	Field Operations Demo
2:00	Analytical Analysis
3:00	Ecological Support Lab
4:45	Depart for Atlanta
6:15	Arrive at Radisson Hotel

WEDNESDAY, MARCH 18

Keynote Speaker, Panels, and Poster Sessions

7:30-8:30	Registration Sign-in Pick up Meeting/Abstract Packet	
8:30-9:00	Welcoming Remarks Introductions NARPM Co-Chairs Region IV Welcome Richard D. Green, Associate Director Waste Management Division 1992 NARPM Activities Co-Chairs Overview of Meeting Co-Chairs	Grand Ballroom

9:00- 9:45	Keynote Speaker	
	Richard J. Guimond Assistant Surgeon General, USPHS Deputy Assistant Administrator, OSWER	
9:45-10:15	OSC/RPM Support Program Update/Questions and Answers	
	Marlene Suit, Staff Director Workforce Management Program	
10:15-10:30	BREAK	
10:30- 4:00	Poster Sessions	Whitehall
10:30- 1:00	Panel Discussions	
	<u>Panel 1</u>	RD/RA Enforcement
		Hermitage East
	Moderator: Cindy Nolan	Region V (8-886-0400)
	Panel: Kathryn Boyle	Headquarters
	Lisa Carson	Region II
	Patti Collins	Region IX
	Bob Guarni	Region III
	Tinka Hyde	Region V
	Sharon Jaffess	Region II
	Marilou Martin	Region V
	Neilima Senjalia	Headquarters
	Larry Starfield	Headquarters
	<u>Panel 2</u>	Ground Water Issues
		Hermitage West
	Moderator: Gail Scogin	Region IV (8-257-2643)
	Panel: Turpin Ballard	Region V
	Kurt Lamber	Headquarters
	Case Study Presenters	
	Case Studies	
10:30-10:55	RI/FS Streamlining: Groundwater Investigations	
	Dennis G. Dalga (Region V)	
10:55-11:20	To Leach Or Not To Leach	
	Mark J. Fite (Region VI)	

11:20-11:45	Ground Water Issues: Sampling for Volatile Organics Mohammed Slam (Utah) C. Jay Silverdale (Region VIII)	
11:45-12:10	Using Cooperative Agreements to Fund Multi-Source Enforcement Work, San Fernando Valley Superfund Site RI/FS Claire Trombadore (Region IX) Chris Stubbs (Region IX)	
12:10-12:35	Sites With Multi-Source/Multi-Site Ground Water Contamination Problems Erna P. Acheson (Region VIII)	
12:35- 1:00	Panel Discussion	
1:00- 2:00	LUNCH	
2:00- 5:00	Panel Discussions	
	<u>Panel 3</u>	Multi-Source Contaminated Aquifers Hermitage East
	Moderator: Patti Collins	Region IX (8-484-2229)
	Panel: Erna Acheson	Region VIII
	Matt Charsky	Headquarters
	Tinka Hyde	Region V
	Marilou Martin	Region V
	<u>Panel 4</u>	Case Studies Hermitage West
	Moderator: Shawn Luetchens	Region IV (8-257-2643)
	Panel: Randy Dominy	Region IV
	Joe Tieger	Headquarters
	Case Study Presenters	
	Case Studies	
2:00-2:30	Balancing of Priorities Anne V. Spencer (Region VIII)	
2:30-3:00	Base Closure Issues at NPL Facilities Katherine Moore (Region IX)	

3:00-3:30	NPL Base Closure in California Barbara Maco (Region IX)	
3:30-4:00	Revegetation at Abandoned Asbestos Mine Superfund Sites Richard Procunier (Region IX)	
4:00-5:00	Panel Discussion	
<u>Panel 5</u>	RI/FS	Hermitage Center
Moderator:	Damian Duda	Region II (8-264-9589)
Panel:	Anita Boseman	Region V
	Steve Caldwell	Headquarters
	Dennis Dalga	Region V
	Patricia Gowland	Headquarters
	Steve Jones	Region VII
	Kevin Mayer	Region IX
2:00-2:30	Case Study Evolving Approach to Streamlining the Risk Assessment Process at Southern California Ground Water Contamination Sites Kevin Mayer (Region IX)	

THURSDAY, MARCH 19

Panel Discussions, Case Studies, and Poster Sessions

8:30-11:00	Poster Sessions	Whitehall
8:30-11:00	Panel Discussions	
<u>Panel 1</u>	RD/RA	Hermitage East
Moderator:	Tom Alcamo	Region V (8-886-7278)
Panel:	Mark Bogina	Region VII
	Jon Bornholm	Region IV
	Rose Marie Caraway	Region IX
	Miguel Cintron	COE
	Jim DiLorenzo	Region I
	Tinka Hyde	Region V
	Phil Rotstein	Region III
	Ken Skahn	Headquarters
	Anne Spencer	Region VIII

Panel 2 **Case Studies** Hermitage West

Moderator: Maxwell Kimpson Region IV (8-257-2643)
Panel: Elizabeth Keicher Region IX
Dion Novak Region V
Case Study Presenters

8:30- 9:00 **Role of Peer Review Committees**
Cathy D. Gilmore (Region VI)

9:00- 9:30 **Performance Standards**
Fran Burns (Region III)

9:30-10:00 **Remedial Construction Completion and
Closeout at the Johns-Manville Site in
Waukegan, Illinois**
Brad Bradley (Region V)

10:00-10:30 **Use of Independent Quality Assurance Team
(IQAT) During Remedial Activities at French
Limited Superfund Site**
Judith R. Black (Region VI)

10:30-11:00 **Panel Discussion**

Panel 3 **Ecological/Risk Assessment Issues**
Hermitage Center

Moderator: Cheryl Smith Region IV (8-257-2643)
Panel: Rose Marie Caraway Region IX
David Charters Headquarters
Karla Johnson Region V
Bob Koke Region VII
Elaine Siriano Headquarters
Case Study Presenters

8:30- 9:00 **Case Studies**
**Lessons Learned: A Comprehensive Ecological
Risk Assessment**
Julie A. DalSoglio (Region VIII)
Janet Burris (Region VIII)

9:00- 9:30 **Determination of PCB Cleanup Levels in Wetlands
Sediment, Kin-Buc Landfill Superfund Site, Edison,
New Jersey**
Alison Barry (Region II)

Data Useability in RI/FS Projects

Cynthia Kaleri (Region VI)

Panel Discussion

LUNCH

Poster Sessions

Whitehall

Panel Discussions

Panel 4

Federal Facilities

Hermitage East

Moderator: Craig Brown

Region IV (8-330-1531)

Panel: Turpin Ballard

Region V

Kathryn Boyle

Headquarters

Paul Ingrisano

Region II

Diana Mally

Region V

Linda Meyer

Region X

Michele Poirier-McNeill

Region X

Susan Webster

Region VI

Case Study

Assessing Low Probability Hazard Sites at Federal Facilities

Michele Poirier-McNeill (Region X)

Panel 5

Community Relations Issues

Hermitage West

Moderator: Laura Williams

Region VIII (8-330-1531)

Panel: Dion Novak

Region V

Steve Sanders

Region VII

Case Study Presenters

Case Studies

Community Relations at the Butterworth Landfill Site

Hank Ellison (Region V)

Extravagant, But Necessary Controls on Superfund Air Stripper Designs

Cesar Lee (Region III)

2:00-2:30	What Can Happen If Your ROD Calls For Onsite Incineration and How You Can (Try to) Prevent It Lesley Brunker (Region III)	
2:30-4:00	Panel Discussion	
	<u>Panel 6</u>	Expedited RD/RA Hermitage Center
	Moderators:	Janet Cappelli Region II (8-264-8679) Bruce Sypniewski Region V (8-886-6179)
	Panel:	Bill Bolen Region V Neilima Senjalia Headquarters Case Study Presenters
	Case Studies	
1:00-1:30	Quick Remedial Action of a Denver Radium Superfund Site Erna P. Acheson (Region VIII)	
1:30-2:00	A Case Study: The Wrigley Charcoal Superfund Site; Wrigley, Hickman County, Tennessee Douglas A. Bell (Region IV)	
2:00-2:30	Streamlining the RD/RA Process at the Seymour Superfund Site Jeff Gore (Region V)	
2:30-3:00	Remedial Action Using Removal Authorities at the Southeast Rockford Ground Water Contamination Site, Rockford, Illinois Karen Vendl (Region V)	
3:00-4:00	Panel Discussion	

FRIDAY, MARCH 20

Advisory Groups and Wrap-Up
Grand Ballroom

9:00-10:00	Formal Panel Summaries
10:00-10:15	Mine Waste Advisory Group Nancy Briscoe (Headquarters, 8-398-8360)
10:15-10:30	BREAK
10:30-11:30	Case Study Panel Summaries
11:30-12:00	Wrap-Up/Voting
12:00	Good-bye and see you next year!

NARPM COUNCIL

National Co-Chairs

Randy Dominy	Region IV
Elizabeth Keicher	Region IX
Dion Novak	Region V
Armando Saenz (alternate)	Region VIII
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Laura Williams	Region VIII

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1992 NARPM CONFERENCE ABSTRACTS

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2. Acheson, Erna P.	VIII	Successful Remediation of Many Unrelated Properties: Operable Unit VI of the Denver Radium Superfund Site
3. Barry, Alison	II	Determination of PCB Cleanup Levels in Wetlands Sediment, Kin Buc Landfill Superfund Site, Edison, New Jersey
4. Bell, Douglas A.	IV	Case Study: The Wrigley Charcoal Superfund Site; Wrigley, Hickman County, Tennessee
5. Black, Judith R.	VI	Use of Independent Quality Assurance Team (IQAT) During Remedial Activities at French Limited Superfund Site
6. Bradley, Brad	V	Remedial Construction Completion and Close-out at the Johns-Manville Site in Waukegan, Illinois
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10. DalSoglio, Julie A., Burris, Janet	VIII	Lessons Learned: A Comprehensive Ecological Risk Assessment, Milltown Reservoir Sediments Superfund Site

11. Ellison, Hank	V	Community Relations at the Butterworth Landfill Site
12. Fite, Mark J.	VI	To Leach, or Not to Leach Soil Cleanup Levels that Protect Ground Water
13. Gilmore, Cathy D.	VI	Role of Peer Review Committees
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21. Maco, Barbara	IX	NPL Base Closure in California
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33. Towle, Michael	III	Identification of a Multi-Aquifer Ground Water Cross-Contamination Problem Using Borehole Geophysical Methods
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QUICK REMEDIAL ACTION OF A DENVER RADIUM SUPERFUND SITE

Erna P. Acheson
(303) 294-1971
FTS 330-1971

ABSTRACT

The Denver Radium Superfund Site consists of 16 separate properties which were contaminated between 1914 and 1927 with radium processing wastes. An International House of Pancakes (IHOP) restaurant is one of the radium contaminated properties. This property is located along a major transportation corridor on the east side of downtown Denver. The restaurant was closed for six weeks to facilitate the removal of radium-contaminated materials beneath the restaurant and the parking lot adjacent to the restaurant.

Radium contamination at the property resulted from manufacturing of thousands of luminous dials for military use (1919-1920) by the Cold Light Manufacturing Company. In 1924 the property was converted into an apartment complex and remained that way until 1939. Between 1939 and 1962 the original structure was razed and the property was used as a car sales lot. In 1965, IHOP built a restaurant on the property which remains in operation today.

The primary challenge in remediating this property was removing 89 tons of contamination from the IHOP interior and 670 tons of contamination from the parking lot located directly east of IHOP. In order to minimize the amount of time that IHOP would need to be closed, EPA directed its contractor to work 3 shifts 24 hours a day, for the first two weeks of the Remedial Action (RA). Buried contamination was found to continue beyond assessed boundaries both inside IHOP and in the parking lot. The additional contamination required that the initial estimate of four weeks for RA be extended an additional two weeks. Once cleanup was complete, the restaurant was restored and the parking lot was reconstructed. The property owner reopened IHOP 20 hours after completion of the final, post-construction review of cleanup activities and reconstruction.

Because IHOP is located along a major transportation corridor and is the most visible of all the Denver Radium sites, the assumption was that additional community relations involvement would be necessary during the RA. However, the property owner worked with the EPA and their contractors to minimize the visibility of the RA such that there was minimal public interest about the ongoing RA.

A total of 759 tons of radium-contaminated material was shipped to Utah for disposal during the first four weeks of the RA. The quick RA was successful in releasing the property for unrestricted use.

SUCCESSFUL REMEDIATION OF MANY UNRELATED PROPERTIES: OPERABLE UNIT VI OF THE DENVER RADIUM SUPERFUND SITE

Erna P. Acheson
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FTS 330-1971

ABSTRACT

Operable Unit VI (OU VI) of the Denver Radium Site consists of ten separate properties which were contaminated between 1914 and 1927 with radium-processing wastes. These properties are at various locations throughout the Denver Metropolitan area. Because of the limited contamination thought to exist on these properties, they were grouped together under one OU. Portions of the contamination on three of the properties is believed to have been the result of a 1920's radium-processing laboratory and the rest of the contamination on the other properties is believed to be the result of processing wastes transported from the various processing sites around the city.

Cleanup was conducted in three phases with a final phase for the last property scheduled for the summer of 1992. A total of 1,260 tons of contamination was estimated in the OU VI Remedial Investigation. This estimate was increased to 2,324 tons during the Remedial Design. A total of 4,083 tons of contamination has been removed from nine properties during the first three phases of Remedial Action (RA). The radium contamination was shipped by both dedicated bi-modal truck mounted containers and by railroad gondola cars to Utah for disposal.

RA workers performed the majority of the cleanup work in "Level D" protection. This level of protection was possible due to thoroughly wetting the excavation such that concentrations of hazardous substances in the air were well below the permissible exposure limit. Radium-contaminated soils were excavated in six-inch lifts in order to minimize the amount of "clean material" that is removed with the waste. The determination as to what material exceeds the cleanup criteria is made by field personnel measuring gamma-exposure rates using hand held scintillometers.

Between October 1990 and September 1991, radium contamination was removed from seven OU VI properties. One property was found not to be contaminated; however, one additional property located adjacent to one OU VI property was found to be contaminated. This additional property is assessed to have approximately 600 tons of contamination and is scheduled to be remediated during 1992. Contamination buried beneath a water line located on one of the properties was left in place. With the exception of the property with the water line, the remaining properties which have been remediated have been released for unrestricted use.

**DETERMINATION OF PCB CLEANUP LEVELS IN WETLANDS
SEDIMENT, KIN-BUC LANDFILL SUPPERFUND SITE, EDISION, NEW
JERSEY**

Alison Barry
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ABSTRACT

At the Kin-Buc Superfund Site in Edison, NJ, ecological risks associated with PCB-contaminated wetlands provide the basis for determining PCB cleanup levels for wetlands sediments. A former industrial landfill located on the banks of the Raritan River, the site includes approximately 80 acres of tidal wetlands. The Operable Unit 1 ROD selected a containment remedy for the landfill mounds, and called for a second operable unit remedial investigation to characterize contamination in the wetlands and remaining areas of the site. The second RI identified pervasive PCB contamination in sediments found in the Edmonds Creek/Marsh tidal system-widespread contamination at levels less than 10 ppm, with "hot spots" up to 730 ppm in the area closest to the landfill. Biota sampling conducted on fish, fiddler crabs, and muskrats within the study area indicated bioaccumulation of PCBs in both fish and fiddler crabs.

Based on the RI, the remediation of the wetlands will be driven by the relationship between PCB concentrations in the sediment and the PCB body burdens observed in aquatic species at the site. The Human Health Assessment did not identify any unacceptable risks associated with direct contact with the sediments. However, unacceptable non carcinogenic and carcinogenic risks are associated with ingestion of fish caught on or adjacent to the site. The Ecological Assessment concluded that PCBs presented a major risk to aquatic life through successive bioaccumulation of PCBs observed in aquatic food chains. Additionally, terrestrial and avian species that feed on aquatic organisms may be at risk, based on estimated dosages of PCBs. Such species include the great blue heron, a NJ endangered species observed at and adjacent to the site.

EPA determined cleanup levels for PCBs in wetlands sediments by evaluating several approaches. The Interim Equilibrium Partitioning (EP) method (Office of Water, 1988) was used to evaluate the bioavailability of PCBs in sediment. PCB data, normalized to Total Organic Carbon (TOC) for each Sediment Quality Criteria (SQC) calculated for each point at the mean and 95% confidence intervals (upper and lower). Given the technical limitations of this approach, this method may help identify those areas which correspond to the greatest ecological risk. EPA also considered the NOAA ER-L (.050 ppm) and ER-M (.400 ppm) values reported by Long and Morgan (1990), which may be used as guidance values for evaluating biological effects. These technical approaches were considered against remediation goals established for PCBs in sediments at

other Superfund sites, and against competing factors such as the technical feasibility of full remediation and restoration and the desire to minimize further degradation of the wetlands through invasive remediation techniques. After consideration of these issues, EPA concluded that a preliminary remediation goal of 5 ppm, which provides for "hot spot" removal, represents an appropriate level of protection for the Edmonds Creek/Marsh system.

CASE STUDY: THE WRIGLEY CHARCOAL SUPERFUND SITE, WRIGLEY, HICKMAN COUNTY, TENNESSEE

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U.S. EPA, Region IV
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ABSTRACT

The 3000-acre Wrigley Charcoal CERCLA Site (HRS of 36.14) is located 45 miles southwest of Nashville, Tennessee and is situated in and around the town of Wrigley, Tennessee. The Site, which was placed on the NPL on March 31, 1989, consists of four distinct areas of contamination: 1) the 35-acre Primary Site where pig iron and wood retorting operations took place from 1881 to 1966, 2) the 3 acre Storage Basin used for waste water storage and disposal in the 1950's, 3) the 3.5 acre Athletic Field built over a ravine filled in with blast furnace slag and contaminated soils in the 1940's, and 4) the 40-acre Irrigation Field used for waste water disposal. Additional operations were conducted from 1978 to 1983, mainly in several of the remaining on-site buildings. Operations during this 5-year period consisted of metals machining, storage of drummed waste products obtained from other local industries, and recovery of copper from transformers.

The Wrigley Charcoal Site is now abandoned, but manufacturing and disposal activities left significant contamination at the Primary Site and the Storage Basin. Primary Site soils were found to be contaminated with phenols, 2, 4-dimethylphenol, benzene, toluene, polycyclic aromatic hydrocarbons (PAHs), halocarbons, asbestos, traces of furans/dioxins, a variety of metals, and broken ACM from roofing materials. The Storage Basin contains raw coal-tar sludges and soils which contain very high levels of phenols and PAHs, and high levels of VOCs and metals. Overall analyses at the Athletic Field revealed relatively low levels of lead, copper, zinc, PAHs, toluene, xylene, and dibenzofuran. Analyses at the Irrigation Field revealed slightly elevated levels of metals in a relic wastewater holding pond.

Concerns at the Wrigley Site consist of: 1) dermal contact/ingestion or disturbance of exposed coal-tar wastes, metallic wastes, and ACM, 2) the potential release of tar-like materials from two large tar-pits into an adjacent creek is also of concern, however, emergency actions taken in 1988 have temporarily reduced the threat of tar-pit failure, 3) the potential release of these wastes and associated volatile contaminants and metals particles into the air, 4) disturbance or mobilization of coal-tar sludges at the Storage Basin, and 5) potential contamination of other Site related areas such as the Athletic Field and Irrigation Field that received transported site wastes.

The cleanup of the Wrigley Charcoal site can be accomplished in 3 operable units. Implementation of an Interim remedial action for the first operable unit will

expedite and streamline remedial activities by addressing the most imminent and substantial threats while permanent solutions are developed for the entire Site. Interim activities include removal and disposal of exposed coal-tar wastes and adjacent soils, removal and disposal of ACM; temporary consolidation and storage of materials such as tar-cubes and contaminated metallic materials that will be eliminated in subsequent remedial actions; and reconstruction of the spillway area that was damaged during Spring 1991 flooding. Operable Unit 2 is proposed to address remediation of the tar-pits, soils, and Storage Basin sludges contaminated primarily with PAHs, phenols, VOCs, and metals. Preliminary estimates of these materials range from 100,000 cy to 240,000 cy. Operable Unit 3 is proposed to remediate any groundwater problems. Subsequent groundwater studies will be required to definitively identify extent of groundwater contamination. Presently, low to moderate contaminant levels have been identified in on-site groundwaters.

USE OF INDEPENDENT QUALITY ASSURANCE TEAM (IQAT) DURING REMEDIAL ACTIVITIES AT FRENCH LIMITED SUPERFUND SITE

Judith R. Black
U.S. EPA - Region VI

ABSTRACT

The French Limited Site is an abandoned industrial waste management facility located in Harris County, Texas near Houston. The 22 acre site contains a 7.3 acre lagoon into which waste materials were placed, and surrounding sloughs which in the past received spills and overflows of contaminants from the lagoon. The EPA entered into a consent decree with 90 PRPs whereby they must conduct an insitu bioremediation remedy for the lagoon and pump and treat for ground water. The French ROD marked the first pump and treat for ground water. The French ROD marked the first application of bioremediation at a Superfund site in the Nation.

In the Fall of 1987, during the insitu pilot program, the French Limited Task group began assembling a team of qualified experts to aid in planning, management, control, and documentation of remedial activities. This team included representatives from various disciplines such as hydrogeology, biology, air monitoring, risk assessment, engineering, construction, and health and safety. The so-called Independent Quality Assurance Team (IQAT) has remained dynamic through the various project phases to insure that the team remained "independent" of the remedial contractor as well as meeting new project needs. The IQAT prepares a monthly report that is sent in final form to the PRP Project Coordinator and the EPA RPM.

The IQAT team and the reporting procedures were formalized as recommended in the EPA Document, "Guidance on EPA Oversight of Remedial Designs and Remedial Actions Performed by Potentially Responsible Parties", Interim Final, dated April, 1990.

The IQAT has been very thorough in testing, inspections, reviews, and providing recommendations for areas of improvement in approved workplans, designs, and field applications. Use of the IQAT has very much helped to provide a high level of confidence to the EPA and the PRPs that: 1) remedial activities are conforming to properly developed requirements; 2) costs and time saving measures are utilized; and 3) that the project continues to benefit from improvement over the life of the project.

REMEDIAL CONSTRUCTION COMPLETION AND CLOSEOUT AT THE JOHNS-MANVILLE SITE IN WAUKEGAN, ILLINOIS

Brad Bradley
Region V
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FTS 886-4742

ABSTRACT

The Johns-Manville Site is an approximately 120-acre above-ground landfill containing the off-specification products and wastes from the Johns-Manville asbestos manufacturing processes in Waukegon, Illinois. The remedial action at the site, primarily consisting of soil covered with vegetation, was successfully completed in August 21, 1991, and the site close-out report was signed on December 31, 1991.

The audience will gain an understanding of the various legal and technical steps involved in the process of completing remedial construction at this site, including shutting down work and discovering and implementing work at additional areas of the site that were not specifically addressed in the ROD. A brief overview of the close-out process will also be presented.

WHAT CAN HAPPEN IF YOUR ROD CALLS FOR ONSITE INCINERATION AND HOW YOU CAN (TRY TO) PREVENT IT

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ABSTRACT

Onsite thermal treatment is a well-established, viable alternative for cleanup of many types of wastes found at Superfund sites. However, public perception of this technology is not always favorable; influential national and international environmental organizations such as Greenpeace are publicly opposed to the use of incinerators. Due in part to the increasingly negative perception of this treatment technology and in part to rapidly changing demographics, and community formerly supportive of a Region III Record of Decision has become angrily opposed to EPA's cleanup plans. In response to concerns raised by the local community and to requests made by a high ranking U.S. Senator, Region III has prepared a series of presentations that have been given at public meetings for two sites. The presenters include the Remedial Project Manager, who explains why this technology has been proposed or selected for this site; a high-ranking regional manager, who assures the public that the incinerator will be operated in a safe manner; and industry expert, who gives a detailed technology overview; and a toxicologist, who addresses the risk posed by the site and by the proposed or planned cleanup method. This presentation has been well-received by local residents and elected officials.

PERFORMANCE STANDARDS

Fran Burns
EPA Region III
FTS 597-4750

ABSTRACT

This presentation discusses the use of performance standards for the selected remedy in the Record of Decision, which eliminates the need for a separate Statement of Work as an appendix to the Consent Decree. The recent experience of Region III in writing performance standards in the Records of Decision will be discussed.

Performance standards are the criteria and conditions that have necessitated the remedy and the standards that define what the selected remedy must accomplish. The Department of Justice has experienced difficulty in defending or negotiating some of the older Records of Decision because the "Selected Remedy" section of the ROD was written in an ambiguous manner, or omitted criteria that EOA considers a benchmark for a successful remedy. DOJ requested that a Statement of Work be attached to the Consent Decree to correct the omissions of the RODs, but Region 3 believed that the ROD should contain the Statement of Work for the Consent Decree. The Consent Decree could then refer to the ROD, which is preferred because the ROD is a final, signed Agency document and is not open to negotiation with the PRPs.

This presentation includes a description of the Department of Justice's need for performance standards in the ROD, the evolution of performance standards, and the recommended format for the performance standards.

**RI/FS STREAMLINING
(Groundwater Investigations)**

Dennis G. Dalga
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ABSTRACT

A large amount of time and resources are generally spent on Superfund sites in performing investigations of the hydrogeological characteristics of the site. Very often, however, varying amounts of time and resources could have been saved if only the subsurface conditions could have been better anticipated. Since this is not always possible, other mechanisms are needed to speed the process and hopefully save money at the same time. My presentation deals with the activities which were undertaken at the Conrail Superfund Site (Elkhart, IN), which has a large study area with extensive groundwater contamination. I will discuss the preliminary investigations which were performed, based on what was thought to be the subsurface conditions at the site. I will also discuss how, even though some questions were answered, and some situations verified, other questions/concerns came out of the initial investigation.

Finally, and most importantly, I will discuss the investigative approach which we employed for subsequent phases, which allowed us to more efficiently study such a large area, in a relatively short time frame, at a cost much less than placing numerous monitoring wells through a number of phases of investigations. Specifically, I will discuss our use of a lead-screen auger, which allowed us to take groundwater samples at whatever depths were deemed appropriate during a single drilling effort, and after analyzing these samples in the field lab, allowed us the flexibility to sample at whatever additional locations were desired, based on the results of previous sampling efforts, groundwater flows, etc.

**LESSONS LEARNED: A COMPREHENSIVE ECOLOGICAL RISK
ASSESSMENT
MILLTOWN RESERVOIR SEDIMENTS SUPERFUND SITE**

Julie A. DalSoglio, RPM
Janet Burris, Toxics Integration Branch

ABSTRACT

EPA initiated a comprehensive and innovative ecological risk assessment at the Milltown Reservoir Sediments Superfund Site in August 1989. Three years later EPA will release a draft baseline risk assessment for public and PRP review. This case study presentation will present a review of the process implemented in conducting a large scale ecological analysis, information gained about appropriate use of methodologies, resources available to RPMs and projects, pitfalls to avoid, and recommendations for streamlining the process.

The Milltown Reservoir Sediments Superfund Site is located in Western Montana, approximately 120 river miles downstream from the historic mining district of Butte and Anaconda, Montana. This site is one of five contiguous Superfund Sites located in the Clark Fork River basin and consists of 80 river miles between Warm Springs Ponds and Milltown and an 820 acre wetlands habitat located behind the Milltown Dam at the confluence of the Clark Fork and Blackfoot Rivers. Early investigations at the site showed no evidence of acute toxicity to the wetlands environment; however, several episodes of large fish kills have occurred below the Warm Springs Ponds and Milltown Dam. The Montana Department of Fish, Wildlife & Parks has also asserted that relatively low fish populations in the river system were a consequence of poor water quality and habitat in the Clark Fork.

EPA decided to conduct a baseline ecological risk assessment in the reservoir area and a screening assessment in the river. The focus of the study has been to identify any chronic, sublethal impacts from contaminated sediments in these environments. A 46 member advisory committee was established with representatives from State and Local agencies, public interest groups, local citizens, and the PRP. Four work groups (public health, wetlands, fisheries, and continued releases) were formed to provide technical assistance and PRP and public input in work plan development. Lack of an established sediment quality criteria, limited EPA field and laboratory protocols, and minimal guidance for ecological assessments provided a major challenge for work plan development. The project ended up consisting of a preliminary field season and a second year baseline field and laboratory assessment with a draft baseline risk assessment planned for September 1992.

COMMUNITY RELATIONS AT THE BUTTERWORTH LANDFILL SITE

Hank Ellison
HSRW—6J
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ABSTRACT

The Butterworth Landfill is a former municipal landfill operated by the City of Grand Rapids, Michigan, from early in the 1950s until 1973. The landfill received both residential and industrial wastes. The site is approximately 180 acres in size and is located predominantly within the 100-year floodplain of the Grand River. The area around the Butterworth site is predominantly industrial; however, there are also ethnic neighborhoods, a ball park and zoo in close proximity to the site.

This is a PRP-lead Remedial Investigation/Feasibility Study, with U.S. EPA as the lead oversight agency. Other groups which have been active at this site include a local environmental group, the contractors for the first Technical Assistance Grant (TAG) awarded in the State of Michigan, the Michigan Department of Public Health and the Michigan Department of Natural Resources.

Community relations problems that have surfaced at the site include a general distrust by the residents of government officials, a historical conflict between residents of the neighborhoods surrounding the site and the city, strained relations between the city and the state, and hidden agendas on the part of both the local environmental group and the TAG contractor. Development and implementation of a very active community relations plan has minimized or alleviated these issues and helped build a more trusting relationship between the community and EPA.

TO LEACH, OR NOT TO LEACH: SOIL CLEANUP LEVELS THAT PROTECT GROUND WATER

Mark J. Fite
EPA Region VI
FTS 255-6715

ABSTRACT

Establishing soil cleanup levels based on risk has become more of an exact science in recent years with the publication of standard risk assumptions in the new Risk Assessment Guidance. However, risk-based cleanup levels may not protect the ground water from infiltration-induced leaching from contaminated soils. Soil cleanup levels which are both protective of the ground water yet cost effective (not overly conservative) are, to say the least, difficult to derive. Project managers generally rely on leaching tests such as the TCLP and computer models such as V-Leach and the Organic Leaching Model (OLM) to establish these cleanup criteria.

In practice, running TCLP extractions on all confirmation samples during a Remedial Action to verify compliance with the no leaching standard could prove cumbersome and costly. On the other hand, relying strictly on a model-derived action level without some validation using actual leaching data could lead to questions about the remedy's effectiveness. As an alternative, both tools can be used to minimize construction costs and increase EPA's confidence in the cleanup standard.

The South Cavalcade Street Site in Houston, Texas, is a former wood treating facility contaminated with polynuclear aromatic hydrocarbons (PAHs). Currently, the PRPs are collecting an extensive amount of soil data in order to define the areas requiring remediation. Those soils which exceed the risk-based soil cleanup level are marked for remediation, while a TCLP extraction and analysis is done on those soil samples which fall below the risk-based level to evaluate leaching potential.

Based on the database of samples used to develop the Organic Leaching Model (OLM), EPA has determined that approximately 85 pairs of data comprising PAH analyses and the corresponding TCLP results will serve to validate the OLM results for the site with 95% confidence. In order to validate the model, the actual carcinogenic PAH concentrations of those soils which leached using the TCLP test will be compared to the OLM derived action level to verify that no leaching occurred in soils with concentrations below the action level established by the OLM.

If the OLM-derived cleanup levels prove to be valid, these cleanup levels will be used to evaluate the leaching potential of soils in lieu of TCLP extraction and analysis during the Remedial Action.

ROLE OF PEER REVIEW COMMITTEES

Cathy D. Gilmore, RPM
U.S. EPA - Region VI

ABSTRACT

Background: About three to four years ago, in Region 6, the Peer Review Committee process for Superfund was born. The first committee was organized due to a concern over the inconsistency between Records of Decision (ROD), the lack of sharing of lessons learned between sites, and, with the RPM revolving door at that time, the concern over the need for sharing expertise and knowledge gained by more experienced RPMs. The goal of the committees at their inception was to take advantage of the cumulative experience of the program.

Current Status: From the start of the Peer Review concept in Region 6, with the formation of one Peer Review Committee, the Region 6 Superfund program now has six functioning committees. These committees are the RI/FS Planning Committee, the RI/FS Review Committee, the Risk and Ecological Assessment Committee, the ROD Committee, the RD/RA Planning Committee, and the RD/RA Review Committee. These committees are made up of RPMs and other skill groups from the Superfund or related programs. Each committee has a membership of 5 to 8 people, and review and comment upon almost all documents submitted for review.

Conclusion: The Peer Review Committee process, as it is known in Region 6, is a viable, useful process. It fulfills several program needs that vary from providing consistency and better work products to training of new staff. As the Superfund program evolves in Region 6, so will the Peer Review Committees. Future issues to be considered by these or new committees include deletions, 5-year review, operation and maintenance, and possibly Superfund contracting needs. The Peer Review Committees are one aspect of a Total Quality Management approach for the Superfund program in Region 6.

STREAMLINING THE RD/RA PROCESS AT THE SEYMOUR SUPERFUND SITE

Jeff Gore
Region V
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ABSTRACT

The purpose of this paper is to outline an actual example of how the remedial design/remedial action process was creatively carried out at the Seymour, In. Superfund Site in order to complete construction activities over two years ahead of a mandated schedule, while meeting all of the regulatory and design requirements of the Consent Decree.

The remedial design/remedial action activities at the Seymour Superfund Site were performed in a responsible party lead status. The Consent Decree and Remedial Action Plan for the Site required the Settling Parties to implement eight aspects of extensive groundwater, soil, and community remedial action activities within a five-year period. In addition, over 20 document submittals were required to be drafted, reviewed and approved before the related remedial action components could be constructed and completed.

Both U.S. EPA and the Settling Parties agreed that expediting the RD/RA process would be beneficial because the migrating groundwater plume could be more quickly contained, public health risks could be more quickly eliminated and RD/RA costs could be minimized.

In order to expedite the RD/RA process, document submittal, review, and approvals needed to be streamlined. This was done by combining the construction contracting bidding process with the agency work plan and health and safety plan submittal and approval process. Review of document submittals was performed only by a small team which was actively involved with the project, and which was very familiar with the ongoing RD/RA activities.

The result is that all required remedial action construction activities are scheduled to be completed in 1991, over two years ahead of the schedule outlined in the remedial action plan; all the conditions of the Consent Decree are being met; the migrating groundwater plume is being contained and treated more effectively; and public health risks have been eliminated or reduced more quickly.

This paper was presented as part of a group session at the Hazardous Materials Control '91 Conference in December and includes a number of slides in the presentation.

THE APPLICATION OF INNOVATIVE TREATMENT TECHNOLOGIES IN REGION VI

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ABSTRACT

Background:

In 1986 the signing of the Superfund Amendments and Reauthorization Act (SARA) placed a new emphasis on the selection of treatment technologies for the remediation of hazardous waste sites. Section 121 (b) (1) of SARA states "Remedial actions in which treatment which permanently and significantly reduces the volume, toxicity or mobility of the hazardous substances, pollutants, and contaminants is a principal element, are to be preferred over remedial actions not involving such treatment." As there were few demonstrated treatment technologies available, innovative treatment technologies became prominent options. SARA also states an alternative remedial action can be selected, even if such an action has not been achieved in practice at another facility or similar site (SARA 121 (b)(2)). The 1990 National Contingency Plan (NCP) went further to state that "innovative treatment technologies will be considered if those technologies offer the potential for comparable or superior performance or implementability; fewer or lesser adverse impacts than other available approaches; or lower costs for similar levels of performance than demonstrated treatment technologies." (NCP 300.430(e)(5))

The end result of the preference for treatment technologies has been the increased selection of undemonstrated and innovative treatment technologies for the remediation of Superfund sites.

Analysis:

A survey will be used in order to gather the necessary information for evaluating innovative treatment technologies in Region 6. Region 6 RPMs will be questioned on their problems relating to the application of innovative technologies. RPMs with site problems warranting further examination will be interviewed in person for their experiences.

Findings:

Certain risks are inherent with the use of innovative technologies. The results of the survey and interviews will be summarized and evaluated. It may be determined that while demonstrated technologies may be acquired

using established procurement methods, these same methods will not necessarily lend themselves to the procurement of innovative treatment technologies. It is expected that innovative treatment technologies will also pose challenges when it comes to their design, scaling up, and operational parameters. It is also anticipated that corporate acquisitions and mergers could play a role, as many of these companies are ripe for takeover.

The difficulties to overcome when using innovative technologies may sometimes seem to outweigh the advantages the technology may provide. While innovative technologies often promise lower treatment levels, or lower costs, these claims are often premature due to the lack of actual operational data. It occasionally turns out that the technology cannot be implemented at all when it fails to perform in the field as expected.

Conclusions:

Certain steps may be taken to increase the practicality of applying innovative treatment technologies, however, there will always be certain risks associated with the application of these technologies. The Agency must be willing to accept these risks if it is to seriously pursue innovative treatment technologies as reasonable alternatives for the remediation of Superfund sites.

NINTH AVENUE DUMP: THE EVOLUTION OF A SUPERFUND REMEDY

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ABSTRACT

The Ninth Avenue Dump Superfund Site is a former wetlands area in Gary, Indiana, which was operated as a "midnight dump" from 1973 to 1975. State inspectors discovered that several hundred thousand gallons of oils, solvents, paint wastes, acids, and thousands of drums had been buried at the site. The site was placed on the National Priorities List in 1983. In 1988, after several removal actions and an extensive Remedial Investigation/Feasibility Study (RI/FS), an interim remedy Record of Decision was issued by the United States Environmental Protection Agency (USEPA) to address a highly contaminated oil phase present under much of the site. USEPA issued a Unilateral Order in 1988 and private parties completed construction of the interim remedy in late 1991.

In this paper, I will describe the evolution of the remedy from ROD signature, through design, to construction completion. The ROD called for construction of a soil/bentonite slurry wall, installation of a oil/groundwater extraction and groundwater reinjection system, oil storage, and reinjection of excess water due to rainfall to the aquifer outside the slurry wall. Several changes were made through remedial design and construction, although the basic components of the remedy remained the same. In the end, the area encompassed by the slurry wall increased from 9 to 17 acres while estimates of the volume of extractable oil varied from 500,000 to 10,000 gallons. The estimated flow rate of excess water to be discharged outside the slurry wall increased from 1 gpm to 30 gpm, requiring a change in the discharge point from the aquifer immediately outside the slurry wall to a river 1 1/4 miles away, and a change in the treatment system from a few carbon columns to a 10,000 sq. ft. treatment plant requiring full-time operators. The estimated cost of construction grew from \$2 to \$12 million.

This site was well characterized during the RI/FS, and changes from the ROD to RD were not entirely due to lack of sufficient RI/FS information, as is often the case with Superfund remedies. Some of the reasons for the increase in scope of the remedy include the issuance of a final remedy ROD in 1989, which required changes to the interim remedy, and differences in assumptions used from the RI/FS to the design in developing volume and area estimates.

The Agency's experience at this site provides an example of the uncertainties inherent in the Superfund process. I will discuss the reasons behind the changes made to the ROD during design and construction and lessons learned throughout the process. I will discuss recommendations for future RODs based on the experience at this site.

**CARBON RIVER MERCURY SITE:
A RISK-BASED APPROACH FOR A REMEDIAL
INVESTIGATION/FEASIBILITY STUDY**

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ABSTRACT

The Carson River Mercury Site (CRMS) is a result of ore processing techniques which were employed during the Comstock Lode in Nevada (1859-1901). Mercury was used in amalgamation processes to extract gold and silver from ore. It is estimated that up to 7,500 tons of mercury entered the Carson River system during this period. The current definition of the site includes tailing piles remaining at historic mill sites and approximately 100 miles of the Carson River extending through Lahontan Reservoir and terminating at the Carson Lake and Stillwater wetlands. The principal human health risks associated with the contamination are ingestion of mercury-contaminated soils and ingestion of fish, waterfowl, or any other animals with unacceptable levels of mercury accumulated in muscle tissue or other portions of the animal. The principal ecological risk is the bioaccumulation and transfer of mercury throughout the foodweb.

Reducing the human health risks associated with the ingestion of mercury-contaminated soils is relatively straight-forward. However, reducing the ecological and human health risks associated with the bioaccumulation and transfer of mercury throughout the foodweb is a very complex problem for which no solutions currently exist. Therefore, we have developed an approach for the RI/FS which includes three operable units. The objectives for the first operable unit are as follows:

- characterize and control human health risks associated with mercury-contaminated soils
- assess all of the human health risks associated with mercury contamination
- assess the ecological risks associated with mercury-contaminated sediments in aquatic environments and develop cleanup criteria
- investigate the process of mercury methylation in the river system with the assistance of the Athens Lab.

The scope of operable units two and three largely depends on the ecological assessment performed in operable unit one which will identify the specific impacts associated with mercury contamination and will determine cleanup criteria for sediments. With this information, EPA can evaluate the ecological impacts, the degree of remediation required to alleviate the impacts, and the technical and economical feasibility of remediation before selecting a strategy for the investigation and remediation of the river system.

DATA USEABILITY IN RI/FS PROJECTS

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ABSTRACT

In October 1990, EPA issued an Interim Final Guidance for Data Useability in Risk Assessment. This guidance supplements that information currently found in the RAGS Guidance and touches upon many problems frequently encountered in collecting, analyzing, and evaluating data at Superfund sites for Risk Assessment. This guidance is one in a series of documents to be produced which may help RPMs ascertain the type of data necessary to produce reliable RI/FS reports. Risk assessment was targeted as the first prototype guidance since the quality of data needed in risk assessments is often more rigid than other data objectives in the RI/FS. Collection and evaluation of a specified quality and/or quantity of data is the focus of the Data Useability Guidance Documents. For example, in the Risk Assessment document, minimum data requirements are identified and outlined in addition to that data desired by the risk assessor for completion of an adequate risk assessment report.

My presentation will highlight useful information available in this document that was used in evaluating the sampling plan for two sites in Region 6, since the guidance was issued after the site WPs. In addition, these two sites were used as a protocol in evaluating data for use in the risk assessment; the guidance is currently undergoing revisions based on real site applications at these two sites. My presentation will include a synopsis of the considerations which need to be addressed when using the criteria in the guidance for conducting adequate risk assessments. Information to be covered will include the current protocol being used for lead cleanup (LEAD 0.5 Model, formerly LEAD .04) and standard default assumptions for various RME scenarios. Questions can be entertained which pertain to RAGS, as time allows.

INCINERATION AT THE MOTCO SUPERFUND SITE, LAMARQUE, TEXAS

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ABSTRACT

Background:

In October of 1987, EPA entered into a Consent Decree with the MOTCO Trust Group to incinerate 60,000 yd³ of sludges/soils and 7 million gallons of organic liquids. A fixed-price contract was awarded to IT in January 1988. IT underbid the ROD estimate by approximately \$15 million. Two incinerators were constructed on-site during the fall of 1989; one incinerator to burn liquids only and one incinerator to burn solids and liquids. EPA approved the trial burn plan in May 1990 for a trial burn on each incinerator. The first trial burn was in October 1990 on the liquids incinerator. The second trial burn on the solids incinerator was in July 1991. The trial burn consisted of two tests, one in the pyrolytic mode, and one in the oxidative mode. EPA was informed in August 1991 that the test in the pyrolytic mode failed. Unsuccessful attempts to redo the trial burn were made in the fall of 1991. IT had intended to redo the trial burn in February 1992. This presentation will discuss some of the difficulties encountered with the incinerator and possible solutions.

Major Technical Issues:

- Waste Handling
- Slagging
- Salt Carryover
- Emergency bypasses

Status of Project:

In December 1991, IT filed suit against the PRPs for breach of contract. IT is presently demobilizing from the site, and the Trust Group is in the process of evaluating other contractors.

EXTRAVAGANT, BUT NECESSARY CONTROLS ON SUPERFUND AIR STRIPPER DESIGNS

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ABSTRACT

Although Air Stripping systems are in common use for the treatment of municipal water supplies when used at Superfund sites, there is the perception that some rare and horribly toxic compounds are being handled. Therefore, the onus falls upon the designer to account for every drop of the contamination from:

- a. pumping
- b. to treatment
- c. to final disposal.

***"You're going to pump that poison out of the ground
and put it into the air."***

This may be taken as the emotional opinion of residents in the neighborhood of a proposed Air Stripper, but there is some truth to that opinion.

This paper will examine the following aspects of an Air Stripper:

- a. vulnerable areas of such a system
- b. realities underlying public perception
- c. use of controls to minimize and account for risks, both real and perceived.

**NPL BASE CLOSURE IN CALIFORNIA:
Can a New Committee Combining Managers from EPA, DoD and the State
Expedite Hazardous Waste Cleanup and Land Transfer?**

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ABSTRACT

Reducing the U.S. Defense budget translates into a 25% reduction in the military forces and the transfer of many military bases. Since 8 of the 15 closing military bases nationwide are located in California, expeditious base closure is a top agenda item for many California Members of Congress and for Governor Wilson. Federal legislation specifies where and when certain land transfer will occur and a State Executive Order provides for whom will participate in the base closure program.

In the past two years, EPA has sought to reconcile the national priority of base closure with the Superfund mandate. At issue are the legal authority and resources necessary for effective EPA/State oversight of base closure, how CERCLA hinders or can hasten base closure, available technology, state initiatives, and community involvement. To implement the program and resolve any conflicts resulting from these Federal and State directives, Region 9, the State, and DoD recently formed the California Base Closure Environmental Committee (CBCEC). This presentation would explore the CBCEC role in base closure issues affecting Superfund.

The Committee consists of first- and second-level managers from Region 9, the DoD environmental and base closure programs and the three branches, and the California EPA and its Office of Planning and Research (the Governor's designated lead agency). Since its first meeting in December, 1991, the CBCEC's first priority has been reviewing draft procedures for documenting and transferring clean parcels of land. Issues include the need for new DoD studies and documentation, the definition of NPL sites for a federal facility, and how to interpret the CERCLA Section 120(h)(3) requirement that all remedial action be taken prior to deed transfer. Region 9 is holding parallel discussions with HQ and other regions to reach a consensus on these issues and on whether resources should be devoted to this "pre-RI/FS review."

Equally important is how to involve the numerous affected businesses, environmental groups, and legislators, as mandated by the Governor's Executive Order, without sacrificing the focus on the original environmental objectives of the Committee. Proposals include forming an Executive Committee, holding briefings and workshops, and expanding membership at a later date.

The work of the Committee has just begun and the issues to resolve are many. However, its work will influence the other seven closing bases nationwide and those that will be included in the 1993 and 1995 Base Closure and Realignment Commission Reports.

EVOLVING APPROACH TO STREAMLINING THE RISK ASSESSMENT PROCESS AT SOUTHERN CALIFORNIA GROUNDWATER CONTAMINATION SITES

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and
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ABSTRACT

Experience throughout Region 9 suggests that Baseline Risk Assessments for most groundwater contamination sites have served solely to confirm the default cleanup objectives (MCLs or non-zero MCLGs), despite the consumption of significant time and resources. The need for a simplified RA process became quite apparent for sites and operable units in three large groundwater basins in Southern California. The similarities of conditions at these sites (alluvial basins contaminated with common chlorinated solvents) have allowed the RPMs to increasingly rely on previous work to avoid duplicative expenditure time and resources.

At the San Fernando Site, a standard Baseline Risk Assessment had been conducted for the contaminant plume that constituted the Glendale Operable Unit. A small, but significant, step toward streamlining was negotiated between RPMs, EPA toxicologists, and the consultants to expand the RA for the Glendale OU into the San Fernando Valley basinwide RA simply by the addition of the basinwide water quality data set for recalculation.

Several simplifying assumptions are being made in the risk assessment for the Baldwin Park OU of the San Gabriel Valley Sites. Only a small subset of the available ground water data are being used to estimate exposure; exposure via inhalation will be estimated by assuming an additional dosage equal to the dosage via ingestion; exposure to soil contamination will not be addressed since its remediation is not a goal of this operable unit; and the exposure analysis will not try to account for the complexities of water distribution in the Valley. The RA will briefly discuss how these simplifying assumptions may over- or underestimate risk. The toxicity assessment requires little new analysis beyond information gathered for other OUs and sites with chlorinated solvents in ground water.

The approach to the RA for the Newmark Site in San Bernardino Valley will make use of both the exposure pathway analyses and the toxicity assessments for previous sites. The only unique information to be presented is the list of compounds of concern detected during EPA's subsurface investigation and the statistical treatment of concentration data. Establishment of remedial objectives will be simplified by a brief presentation of the risk calculations for the

compounds of concern at their respective MCLs (the default cleanup goals)
Cleanup goals for unsaturated zone contamination at identified sources are to be established with consideration for protection of groundwater, not as a separate risk exposure pathway.

Many groundwater contamination sites involve conditions that justify a vastly simplified process based on extensive previous experience. It was fortuitous that the applicable experience was concentrated in a single section to facilitate identification and implementation of streamlined processes. Coordination with regional toxicologists and ORCs as well as other RPMs helps to ensure that requirements of the NCP are fulfilled.

BASE CLOSURE ISSUES AT NPL FACILITIES

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ABSTRACT

In 1988, Congress passed the Base Closure and Realignment Act (BCRA) which required the Department of Defense (DOD) to close and realign military installations. Currently, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 120(h) requires Federal Facilities to take all necessary remedial actions before selling their property.

The Commission on Base Closure and Realignment recommended George Air Force Base (AFB) and Mather AFB in California for closure in Round I. George AFB is scheduled to close on December 31, 1992; Mather on September 30, 1993. The concurrent implementation of CERCLA and BCRA has raised a number of conflicting issues to the EPA, Air Force, and State Remedial Project Managers (RPMs). The primary concerns are grouped as follows:

- **Investigation and Clean Up Prioritization:** CERCLA site prioritization is determined based upon protection of human health and the environment, while BCRA prioritization appears to be financially motivated.
- **Parcelization:** As each facility closes, the RPMs will most likely be required to make a determination if the specific parcels have had all necessary remedial action taken at that location. CERCLA guidelines, including risk assessment procedures, complicate this finite decision until the entire Federal Facility has been characterized and remediated.
- **Site Acceleration:** In order to meet the mandates of BCRA and the economic desires of the community, the Federal Facility Agreement (FFA) schedules may need to be accelerated. This will most likely translate into technical, program, and resource impacts.

VINYL CHLORIDE MIGRATION IN SOIL GAS AT A MUNICIPAL LANDFILL SUPERFUND SITE

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ABSTRACT

The conventional premise on soil gas plumes emanating from landfills is that methane will delineate the leading edge of the soil gas plume. This is because methane is typically the lightest and most prevalent constituent in the landfill gas. Recent soil gas sampling at the Fresno Sanitary Landfill Superfund Site has revealed that vinyl chloride from the landfill has migrated as much as 500 feet beyond the edge of the methane plume. This discussion will include the soil gas sampling strategy, technical considerations and procedures, costs, results, and possible mechanisms for this apparent soil gas migration anomaly.

**INDOOR AMBIENT AIR SAMPLING FOR VINYL CHLORIDE IN HOMES
ADJACENT TO A MUNICIPAL LANDFILL SUPERFUND SITE**

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ABSTRACT

Vinyl Chloride soil gas migration under several homes near the Fresno Sanitary Landfill Superfund Site has necessitated ambient air monitoring for vinyl chloride in these homes. This discussion will include the ambient air monitoring strategy which provided a quantitation limit for vinyl chloride of 0.2 ppbv. Discussion will include technical considerations and procedures, costs, a three-tiered action level plan, remediation and relocation contingencies, community relations issues, and results from the first phase of sampling.

STREAMLINING ECOLOGICAL ASSESSMENT AT NPL FEDERAL FACILITIES

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ABSTRACT

NCP requires that the baseline risk assessment in the RI/FS "characterize the current and potential threats to human health and the environment". CERCLA/SARA requires protection of the environment. The NCP specifies that "environmental evaluations shall assess threats to sensitive habitats and critical habitats of Endangered Species". Currently there is little consistency, and limited efficiency, within ecological risk assessment at Superfund sites. How can we streamline the process of ecological assessment without ignoring the site-specific nature of ecological stress? This paper focuses on the tools that RPMs can use to accomplish Problem Formulation, Exposure Assessment, Effects Assessment, Risk Characterization, Feasibility Study, and Remedial Design in a streamlined, protective, and widely accepted fashion. MCB Camp Pendleton, CA is the specific example.

Valuable Documentation: ECO Update circulars, Rapid Bioassessment Protocols, EPA Technical Assistance Directory, Environmental Assessment documents, ASTM and EPA protocols for sediment and water toxicity, and references taken from AQUIRE database.

Technical Support: The Biological Technical Assistance Group (BTAG) is a valuable source of advice on QA/QC, DQO's, fate, sampling and analysis, and general direction. BTAGs typically include natural resource trustees and consultants as well as EPA staff.

Team Building: A "team" approach with open communication between EPA, trustees, and the Navy's CLEAN contractor has saved tremendous amounts of time and frustration.

Computer and Information Resources: EPA has excellent GIS facilities which may be cost-prohibitive for the Navy or their contractors to procure. Using Inter-Agency Agreements, EPA can play a key role in facilitating effective and efficient management of site-specific geophysical, GPS, ecological mapping, hydrologic mapping, toxicity, and contaminant concentration data. One key element of streamlining involves specification of electronic data formats and procedures at the outset of RI/FS work. Precise specification of such formats and procedures can facilitate efficient data acquisition and analysis; allowing GIS, Data Validation, and Data Quality Tracking of QA/QC outliers to be accomplished more efficiently. Capturing ASCII files from AQUIRE and IRIS database and

using them in a GIS work environment is yet another valuable technique. Objectives and budget limitations should be clearly, efficiently, and realistically specified to avoid excess.

Sampling and Analysis Techniques: GIS and intake models can help to narrow down the scope of expensive and time-consuming sampling and analysis. With this focus, passive sampling with GC/MS analysis, bioassays, and direct tissue sampling can be selected (in the context of schedule and budget limitations) in addition to active sampling with chemical analysis of media. Another convention we are exploring is the formulation of site-specific objective functions for minimization of ecological stress in remediation design.

SITES WITH MULTI SOURCE/MULTI SITE GROUNDWATER CONTAMINATION PROBLEMS

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ABSTRACT

The Sand Creek Superfund Site is comprised of four different groundwater contamination sources and is part of a larger groundwater system which is influenced by five Superfund sites, several RCRA sites and an unknown number of other active or abandoned facilities. This groundwater system encompasses parts of the City and County of Denver, the City of Commerce City, and South Adams County, in an area which was one of the industrial backbones of the State of Colorado for almost a century.

Evaluating the impact of these sites on the groundwater has caused EPA to develop several different mechanisms to insure coordination of activities and information. This paper will describe the evolution of EPA's information transfer mechanisms, and focus on the difficulties encountered in avoiding duplication of effort and maintaining consistent approaches to investigating and remediating the groundwater with respect to the Sand Creek Site.

ASSESSING LOW PROBABILITY HAZARD SITES AT FEDERAL FACILITIES

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ABSTRACT

Federal Facilities listed on the National Priorities List present unique problems for site characterization. Federal Facilities are typically associated with a large number of potential hazardous sites which vary significantly in size, age, complexity, and potential for environmental contamination.

CERCLA provides a rigorous decision process for determining the need to perform remedial actions at hazardous waste sites. Remedial decisions are based on the concept of acceptable risk. The extent of contamination associated with individual sites at a Federal Facility ranges from those sites which are known to exceed the risk threshold for remedial action, to sites which have a low probability of presenting an unacceptable risk. Sites which fall at the latter end of the spectrum are categorized as "Low Probability Hazard Sites" or LPHSs. LPHSs may not warrant the level of remedial investigation associated with typical Superfund sites which are known to present or have a high probability of presenting an unacceptable risk to human health and the environment.

A methodology to assess the need for further investigation and action at LPHSs has been applied at several Region 10 Federal Facilities. This screening-level approach is based on the concepts of qualitative risk assessment Data Quality Objectives described in several CERCLA RI/FS Guidance documents. This methodology is an effective process for prioritizing site cleanups, for reaching early decisions, and for focusing the scope of Remedial Investigation/Feasibility Studies.

REVEGETATION AT ABANDONED ASBESTOS MINE SUPERFUND SITES

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ABSTRACT

In 1980, asbestos was detected in the California Aqueduct south of Huron. Studies have shown that, during floods, asbestos-laden water and sediments sometimes flow into the aqueduct. In a 1983 survey, two abandoned mines were identified as the most likely significant sources of the asbestos. The two sites, Atlas and Johns-Manville/Coalinga Asbestos Mines were subsequently added to the NPL. Asbestos exposure also results from vehicle use on unpaved roads and trails which releases asbestos fibers into the atmosphere where they are inhaled by users of a nearby Bureau of Land Management Recreational Area.

EPA's clean-up plan for these sites includes engineering and institutional controls to minimize the release of asbestos with the following elements: stream diversions, sediment trapping dams, slope stabilization, limiting access, disposing of debris, paving roads, deed restrictions, and revegetation.

Revegetation poses some particular problems in the unique serpentine soils. It must first be determined if revegetation is a practical way to minimize erosion of the disturbed areas before a full-scale implementation of the pilot project is attempted. This makes the RD/RA phase particularly interesting.

STRATEGY FOR CONDUCTING AN RI/FS AT THE HARBOR ISLAND SUPERFUND SITE, SEATTLE, WA

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ABSTRACT

Harbor Island is a 400-acre industrial island located at the mouth of the Duwamish River in Seattle, Washington. The island was constructed at the turn of the century with sediments dredged from the Duwamish River. The island was listed on the NPL in 1983 primarily because of elevated levels of lead in the air, soil, and marine sediments due to a lead smelter which operated on the island for 47 years. In addition to the smelter, the site includes other sources of hazardous substances including two major shipyards, several metal foundries and plating operations, a scrap metal recycling operation, and several petroleum tank farms.

Most of the unpaved surface soil on the island has levels of lead above the cleanup action level of 1,000 ppm. In addition, there are localized areas of soil with levels of arsenic, chromium, PCBs, PAHs, and petroleum hydrocarbons above the cleanup action level. Sediments in several areas of the surrounding waterways have been documented to contain concentrations of copper, lead, zinc, mercury, arsenic, PAHs, PCBs, and methylphenols exceeding the State marine sediment standards. Groundwater quality at several monitoring wells on the island exceeds MCLs for arsenic, cadmium, chromium, lead, selenium, benzene, and ethylbenzene.

EPA initiated a Phase I RI in 1988 which focused on soil contamination at several facilities where high levels of hazardous substances were suspected and installed 20 groundwater monitoring wells to assess water quality. EPA is now completing a Phase II RI/FS which is a comprehensive sampling of soil, groundwater, and marine sediments to completely characterize the nature and extent of contamination and to select the appropriate remedial actions for this site.

The investigation of this Superfund site was complex due to its numerous sources of hazardous substances and due to its unique location, being surrounded by water and a marine ecosystem. Methods were developed for conducting the RI/FS which took into consideration the above site complexities and allowed completion of the RI/FS in a reasonable timeframe. These methods included: 1) a two-phased sampling strategy for determining the nature and extent of contamination, 2) a customized Geographic Information System (GIS) for data management and evaluation, 3) a two-phased groundwater model approach to predict the transport of contaminants in groundwater, and 4) a generic soil treatability study to determine which technologies would be most effective for soil remedial actions.

GROUND WATER ISSUES: SAMPLING FOR VOLATILE ORGANICS

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ABSTRACT

Most of the ground water wells at the Defense Depot in Ogden, Utah (an NPL Site) were sediment producing. This resulted in turbid samples which contained sediment as high as 25% by volume. EPA and the State of Utah believed that turbid samples were not representative of the aquifer and set a criterion of five nephelometric turbidity unit (5NTU) or less for future ground water sampling. A bladder pump subsequently was used to collect ground water samples which had turbidity of 5NTU or less. Initially the vinyl chloride concentration was around 2 ppb. After ensuring that samples were turbidity free, the vinyl chloride concentration increased five-fold. Because MCL for vinyl chloride is 2 ppb, a potential no action Record of Decision was changed into an action ROD.

BALANCE OF PRIORITIES

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ABSTRACT

As an RPM, there are many responsibilities to fulfill, duties to perform and issues to resolve. The objective of an RPM is to perform, as gracefully as possible, a very delicate juggling act. The following important priorities are a few examples of the most delicate plates we juggle:

- Building a cohesive, results-oriented team. Superfund is a team effort involving core teams and other team experts as necessary. The team approach is essential to accomplishing it all. However, with this myriad of people, it is very difficult to get everyone together for a team meeting. The goal, of course, is to obtain a team consent on an issue or approach.
- There is a careful balance between "fighting fires", short-term duties to advance the project, and "envisioning the forest", long term project planning. Site planning is a critical step to guide the project. Yet, there are always many issues to research and resolve.
- Building good, working relationships with external parties. Communications with the State, PRPs, contractors, and the community are vital to the success of the project.
- Resolving technical issues are challenging; however, in Superfund, the technical issues have become intertwined with the legal morass.

Superfund is a technically complex, multi-media specialized industry. Moreover, Superfund has evolved to a very cumbersome process. The RPM must obtain an informed consent from internal and external parties in order to proceed toward cleanup. There are many hoops to jump through while juggling the plates. The process itself has become overburdensome. Have we hit a point of diminishing returns? Are we proceeding in the correct direction? Are we doing what's right and not just following the process that we created?

We must not let ourselves get so caught up in the "PROCESS". We must face our barriers and obstacles as a challenge to be confronted head on. We have

built some of the most frustrating barriers into the process. We've agonized through the process a few times, and now it's time to revise our ways of doing business. We have to find new paths around, over, and under, but better yet, let's create entirely new and different direct courses of action. It is not easy and there are risks involved. Any deviations from the normal process are very arduous.

However, there is hope. The most positive aspect of the revitalization initiative, for everyone involved, is now strongly encouraged to look for innovative ways to conduct business. It is already stirring creativity in teams, management, and headquarters. Most importantly, management and other team members may be open to innovative approaches. Let's take advantage of this creative time to share and discuss the ideas for innovative approaches. Which plates are your most delicate?

IDENTIFICATION OF A MULTI-AQUIFER GROUND WATER CROSS CONTAMINATION PROBLEM USING BOREHOLE GEOPHYSICAL METHODS

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ABSTRACT

Abandoned industrial and public supply wells and improperly constructed monitoring wells, completed as open holes penetrating multiple water-bearing intervals in the Stockton Formation, short circuit the ground water flow system and act as conduits for contaminant transport. Borehole geophysical methods were used to construct a three-dimensional lithostratigraphic model, identify fluid-producing and fluid-receiving zones (fractures), measure vertical borehole fluid movement, and serve as the basis for proper construction of monitoring wells at a Superfund site in Hatboro, PA. Natural-gamma, single-point resistance, caliper, fluid-temperature, and fluid-resistivity logs were run in 16 boreholes 149 to 470 feet deep.

The lithostratigraphic model of the dipping sedimentary rocks of the Triassic Stockton Formation is primarily based on natural-gamma, single-point resistance, and caliper logs. Geophysical logs from one borehole were compared to a 200-foot long rock core, from that borehole, to determine the relative response of the geophysical logs to lithology. This comparison was used as the basis for interpretation of the geophysical logs of the other boreholes. The interpreted lithostratigraphy correlates closely from borehole to borehole.

Fluid-producing and fluid-receiving zones were identified based on caliper, single-point resistance, fluid-resistivity, and fluid-temperature logs. The direction and rate of borehole fluid movement was determined by injecting a slug of high-conductance fluid at different depths in 15 of the boreholes and monitoring the movement of the slug with the fluid-resistivity tool. Downward fluid movement at rates up to 6 gallons per minute was measured in 13 boreholes. Borehole fluid moving from the shallow to the deeper part of the aquifer system, from all nine boreholes sampled, contained detectable concentrations of volatile organic compounds, confirming that cross-contamination is occurring.

Borehole geophysical logs were used as the basis for construction of monitoring well-clusters to prevent cross-examination. A deep borehole was drilled and logged at each cluster location. The deep borehole was reconstructed so that it was open only to the deepest water-bearing interval. Two additional boreholes open to shallower water-bearing intervals were then constructed.

A combination of borehole geophysics, measurement of vertical borehole flow, and sampling of the fluid moving in boreholes was an effective method to identify a ground water cross-contamination problem. Borehole geophysical logs and measurement of borehole fluid movement provided the location of fluid-producing and fluid-receiving fractures in the boreholes and defined zones of borehole flow.

**USING COOPERATIVE AGREEMENTS TO FUND MULTI-SOURCE
ENFORCEMENT WORK
SAN FERNANDO VALLEY SUPERFUND SITE RI/FS**

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ABSTRACT

In 1986, EPA placed four sites within the San Fernando Valley on the National Priorities List (NPL). Each site boundary encompasses an area in which production wells produced ground water containing concentrations of TCE and PCE above State and Federal standards (MCLs and SALs) in 1984. EPA is managing the four areas as one large site referred to as the San Fernando Valley Superfund Site. The study area of these large site includes the four NPL sites and adjacent areas where ground water contamination is known or presumed to have migrated.

The San Fernando Valley covers approximately 122,800 acres and the ground water provides a source of drinking water for more than 600,000 residents in the Los Angeles area. The ground water contamination plume extends over 12 miles in length and is from hundreds of different sources.

The overall objectives of this project include: 1) to protect human health and the environment, 2) to characterize the nature and extent of the ground water contamination in the San Fernando Valley Ground Water Basin, 3) to develop and implement an effective remediation for the ground water contamination, 4) to identify potentially responsible parties (PRPs) and link them to the ground water contamination, and 5) to compel these PRPs to perform the work and pay for past and future EPA costs.

To help achieve these objectives and to strengthen our enforcement program, EPA entered into a cooperative agreement with the California State Water Resources Control Board (State Board) in September 1989 to enable the Regional Water Quality Control Board, Los Angeles Region (Regional Board) to assist with source identification in the San Fernando Valley Basin. Responsibility for water quality planning and protection is shared by the State Board and its regulatory arm at the regional level, the Regional Board.

The funding has enabled the Regional Board to increase the number of staff working on source investigations in San Fernando from three to eleven. EPA has worked closely with the Regional Board to develop an aggressive and highly successful source identification program for a large, multi-source site without tapping contractor or other project resources. EPA is using the results of the Regional Board's work to develop strong enforcement cases and to preliminarily identify good candidates for special notice. In addition, EPA funding allows the SWRCB to redirect State funds for source remediation.

**REMEDIAL ACTION USING REMOVAL AUTHORITIES AT THE
SOUTHEAST ROCKFORD GROUND WATER CONTAMINATION SITE
ROCKFORD, ILLINOIS**

Karen Vendl

ABSTRACT

The Southeast Rockford Ground Water Contamination Site is a residential area with private wells that is located near the City of Rockford, Illinois. A removal action was done in 1990 to connect residences to City water whose wells had contamination above Removal Action Levels. The remainder of the affected homes had levels of contaminants below Removal Action Levels, but above Maximum Contaminant Levels. Under an operable unit of the remedial effort, these homes were connected to city water using removal authorities. The use of removal authorities allowed USEPA to proceed from signature of the Record of Decision to construction in 34 days, thus removing the public health threat at least a year earlier than if remedial authorities had been used.

**REMEDIAL DESIGN/REMEDIAL ACTION "NEGOTIATIONS",
THE DEPARTMENT OF JUSTICE, AND TIME**

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ABSTRACT

Section 122 of CERCLA requires that all Remedial Design/ Remedial Action (RD/RA) settlements with Potentially Responsible Parties (PRP) be finalized as judicial Consent Decrees (CD). The 1989 OSWER Directive 9837.2, Enforcement Project Management Handbook (Guidance), recommends coordination by the RPM with the Federal natural resources trustees and the State, as well as the required "close coordination" with ORC, OECM, OWPE, and last, but not least, the Department of Justice (DOJ) during the RD/RA negotiations process.

The "negotiations" process informally begins upon review of the PRP search and the determination by the Region that there are PRPs who appear to be viable, capable of properly implementing the remedy, and who may be willing to settle. The Guidance recommends submittal by the Region of a pre-referral package to DOJ at least 60 days prior to the issuance of the RD/RA special notice letters. The DOJ case attorney is considered an important legal resource to the Region and is identified as a fully participating member of the negotiations team. The DOJ attorney and appropriate management are also responsible for review of the initial draft of the CD before it is sent to the PRPs, as well as subsequent redrafts. The DOJ case attorney represents DOJ's view of the case and is responsible for providing consistency with and insight into other enforcement cases.

The formal settlement process begins with the issuance of special notice letters to the PRPs. This begins a 60-day moratorium period in which the PRPs can make a "Good Faith Offer" to undertake or finance the RD/RA. If such an Offer is received, the moratorium is extended an additional 60 days to allow EPA and the PRPs to attain a mutually agreeable CD. The Regional Administrator can extend the moratorium yet another 30 days if agreement seems to be imminent. Once agreement has been reached, the CD is signed by the PRPs and the Regional Administrator; and then forwarded to DOJ with a referral package developed by ORC.

At this time, you're probably pretty happy because you met your target and you can finally begin RD/RA activities! But when does the CD become effective and, therefore, enforceable? And what impact is this likely to have on your site schedule? The potential horrors of the "after-negotiations" process are illustrated by the actual events which befell the Woodbury Chemical Company Site.

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