

From: Michael F. Weber (MFW)
To: WN5:WN4:PH1:WN1:WN2:FXC
Date: Wednesday, December 30, 1992 12:07 pm
Subject: Reply on Keystone Summary

If you are going to summarize our discussion with Keystone, I suggest you consider using the summary I e-mailed to the Regions as a starting point. It already includes my embellishments. If you need another copy, I have attached it for your information and use.

Region III informed me that Chuck Norrelius, Director of DRSS in Region III will be attending the simulation workshop. I have not gotten the names from the other regions yet. When I do, I will inform you so you have an idea who is coming.

Mike Weber

CC: wr1,jha

Files: P:\EPRNEWS

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Roy Brown, Manager
Regulatory Compliance
Mallinckrodt Medical
2703 Wagner Place
Maryland Heights, MO 63043-3493

Dear Mr. Brown:

Several weeks ago I wrote to you concerning the Commission's intent to initiate a rulemaking to establish the site cleanup criteria for the decommissioning of NF -licensed facilities. In order to enhance this rulemaking, the NRC staff plans to conduct a series of workshops during which invited participants, representing a variety of points of view, will inform the staff of their perspectives on the relevant issues. These workshops will be scheduled for approximately two days and include some preliminary background presentations, as well as interactive discussion of the issues by NRC staff and participants. The goal of these workshops is not to pursue consensus but rather to provide opportunities for interested groups to express their opinions on a range of options available to NRC for establishing the site cleanup standards.

The Commission has recently approved the final plan for conducting the workshops and it is my pleasure to formally invite you to participate in the workshop to be held in Chicago, Illinois on January 27 and 28, 1993. Participants will be notified of the specific meeting locations in early January, 1993. I have enclosed a Federal Register Notice that provides further information on the objectives and format of the workshops. I have also enclosed the Rulemaking Issues Paper which will provide a focus for the discussion at the workshops. It is extremely important that each participant come to the workshop prepared to discuss the full range of issues and approaches described in the Rulemaking Issues Paper. Participants will also be provided with additional background material, including case studies of decommissioning projects, in advance of the workshops.

The Commission has set aside a small amount of funds to help to defray the transportation and lodging expenses for invited participants who could not otherwise participate in the workshops without such assistance. Please note that the Commission's decision to make funds available for this purpose is unique to the workshops associated with this particular rulemaking. The Commission is offering to assist with travel expenses because of the importance of ensuring effective participation in this first attempt to implement an extensive and comprehensive participatory process. These funds will be provided in accordance with Federal travel regulations and NRC funding criteria.

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Personnel from The Keystone Center, a nonprofit organization located in Keystone, Colorado, will serve as the neutral facilitators for the workshop discussions. The Keystone Center will also be making the logistical arrangements for the workshops, including administration of the travel funds to those participants who meet the funding criteria.

We believe that your participation will make a positive contribution to the workshop discussions and I hope you will give the invitation to participate in the workshop serious consideration. Please inform us by December 31, 1992 of your decision on whether to participate in the workshop by returning the enclosed "Response Form" directly to The Keystone Center, Attention: Denise Siebert, via U.S. mail: P.O. Box 8606, Keystone, Colorado 80435-7998; fax: 303-262-0152; or telephone: 303-468-5822. Please do not hesitate to contact me at 301-504-1642, or Dr. Michael Lesnick of The Keystone Center at 303-468-5822, if you need further information on the process. We look forward to hearing from you.

Sincerely,

Francis X. Cameron
Special Counsel for Public Liaison
and Waste Management
Office of the General Counsel

cc: Dr. Michael Lesnick, The Keystone Center

MN .0154 MR/HR

UPDATE ON THE EPR

The preparatory workshop for the EPR workshops was a success! The workshop was held in Bethesda on January 11 and 12 and involved the NRC and EPA Headquarters rulemaking teams and the NRC regions [Roth (I), Decker (II), Norelius (III), Holley (IV), and Kunihiro (V)]. Bill Morris (RES), Hugh Thompson (Deputy EDO), and Marty Malsch (Deputy General Counsel) also participated in the discussions. The workshop was facilitated by Mike Lesnick and Barbara Stinson of the Keystone Center. A hearty thanks to all who contributed to the success of the preparatory workshop. This note summarizes the workshop and identifies some of the action items coming out of the workshop in preparation for the first EPR workshop in Chicago on January 27-28.

In the first part of the workshop, we discussed the objectives of the workshops and the roles of the various parties (NRC, EPA, Keystone, members of the public). NRC will be represented at the table by Chip Cameron, Don Cool, and Mike Weber. A limited number of NRC regional staff and support staff will be present and seated away from the table. EPA will be represented by Allan Richardson and Pam Russell (both from the Office of Radiation and Indoor Air). Mike Lesnick and Barbara Stinson will facilitate the workshops. The participants will be seated at the table; members of the public will sit away from the table and will be given opportunities to ask questions or make comments at the end of each session throughout the workshop.

After this introduction, we discussed the presentations by Chip Cameron on the EPR and NRC's plans, Barbara Hostage (EPA) on EPA's involvement in the EPR and planned activities, Don Cool on the Rulemaking Issues Paper, and Mike Weber on Decommissioning and the Case Studies. The presenters received constructive comments from the other participants on the content and structure of the presentations.

The workshop focused next on the agenda for the EPR workshops. Participants walked through and discussed each of the agenda topics. This discussion was most productive in developing a common understanding of the issues for discussion and relating the agenda topics back to the Rulemaking Issues Paper. Participants spent nearly 5 hours discussing the agenda and associated issues.

The workshop concluded with a brief discussion of anticipated questions about the EPR. After the workshop concluded, Keystone Center staff discussed NRC regional programs and issues with representatives of each region. These discussions were invaluable in familiarizing the facilitators with the types of issues that may surface in the workshops. Wes Holley, Region IV, also brought a video tape and slides of the Pathfinder Reactor decommissioning, which he showed to Mike Lesnick, Chip Cameron, and Mike Weber on Tuesday afternoon and Wednesday morning. The video and slides helped prepare the participants for the workshops by providing graphic images to the facilitator and NRC staff on the Pathfinder decommissioning. NRC staff intends to make the video available for showing at the workshops to show participants what "decommissioning" looks like in the real world.

About 25 participants are expected for the Chicago workshop, providing a good balance of industry, State, local, environmental, citizen, and professional society interests. The list of participants in this workshop (and subsequent

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ones) will be mailed to the participants of each workshop in advance along with the agenda for the workshop. Keystone intends to finalize the agenda based on the discussion and comments at the preparatory workshop and mail it out to participants by next Tuesday (1/19/93). The decommissioning case studies and description of international standard activities will also be mailed out within the next couple of days. In addition, Chip Cameron is preparing a Commission paper to describe the status and planning for the first workshop and transmit this information to the Commission before the workshop. RES is also developing a schedule for the rulemaking, including provisions for a national scoping meeting on the Generic Environmental Impact Statement, review by the Advisory Committee on Nuclear Waste and the Agreement States, completion of necessary supporting documents, and developing responses to comments and issues identified in the workshops. Chip is also developing a outline of answers to anticipated questions about the workshop. This information will be distributed to the Regions and within NMSS as it becomes available.

The NRC and EPA rulemaking teams will be meeting with NRC and EPA regional staff in Chicago at 3:00 on 1/26/93 to discuss any last minute information about the issues that may surface and the participants that may attend the first EPR workshop. Similar background meetings will be scheduled in each of the NRC regions prior to each workshop. In general, these will occur during the late afternoon immediately preceding the workshops.

NRC staff who intend to attend the workshops should inform Mike Weber of their intentions so that this information can be passed onto the Keystone Center to develop a head count in advance of each workshop and to coordinate hotel information. Any comments or questions about this summary should be referred to Mike Weber at (301) 504-1298 or "mfw" on NRC E-mail.

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Update on the EPR

"This was the best run, best organized workshop I have every been to..." *Herman Cember, Professor and author of the best selling textbook on Health Physics*

The above quote summarizes the positive impressions of a number of the participants at the first workshop on the Enhanced Participatory Rulemaking in Chicago, January 27-28, 1993. The NRC and EPA rulemaking team considered the workshop a success; the positive participation and reaction of the participants and observers exceeded the expectations of many of the NRC staff involved in the workshops. All of the participants attended the meeting, along with up to 70-80 observers. This note summarizes my general experiences and observations of the first workshop and provides insights to other NRC staff who may be involved in subsequent workshops around the country. The substance of the participants comments and positions will be summarized in the document being prepared by Keystone.

Keystone did an excellent job in facilitating the discussions. The agenda worked fairly well in leading the participants through discussions of the major issues that the agencies had identified in the Rulemaking Issues Paper. No significantly new issues were raised by the participants. Chip Cameron, Don Cool, and Alan Richardson (EPA) made informative, balanced, and polished presentations about the rulemaking, issues paper, and EPA's involvement. Most of the participants that I spoke with considered these introductory presentations to be helpful in providing background information and setting the stage for the issue discussions that followed throughout the rest of the workshop.

Representation of the various interests in the rulemaking was fairly balanced. This fostered an open and thorough discussion of some of the major issues associated with establishing radiological criteria for decommissioning. A number of the participants commented that they were impressed with NRC and EPA's evident cooperation in the rulemaking and associated activities. Several participants noted that the discussions had provided them with new insight into the complexity and issues associated with setting the standards. This new insight would be helpful in preparing comments on proposed standards. Other participants stated that the discussions made them more aware of the difficulties in establishing standards and the many viewpoints that need to be considered in such decisions. Participants also noted that they were struggling with how they could best relay this information back to their constituents to continue the learning process that began at the workshops. Representatives of the citizen groups commented that the workshop improved the credibility of the NRC as a fair regulator because of the obvious willingness of the NRC staff to listen and explore their concerns and the lack of any preconceived position on what form the standards should take (e.g., risk-based vs. background).

Although the participants hesitated to state strong views during the first day's discussion of preferred approaches for the decommissioning criteria, several clarified their positions during the second day. The discussion of decommissioning technology sagged a bit during the last part of the afternoon on the first day. It seemed that the technology discussion was heavily driven by economic and cost concerns. By the beginning of the second day, we could

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tell that rapport was building between the participants based on increased dialogue between the participants around the table. This growth continued throughout the second day and fostered more in-depth pursuit of the specific issues identified in the Issues Paper and on the agenda. It appeared by the end of the second day that most people had been satisfied with the level and depth of discussion.

On the evening of the first day, NRC staff made two video tapes available for participants and observers to watch. Wes Holley, Region IV, did an excellent job narrating a video of the decommissioning of the Pathfinder power reactor in South Dakota. The video was helpful in illustrating some of the abstract concepts associated with decommissioning criteria in tangible terms. For example, it clearly demonstrated the level of rigor associated with radiological surveys that supported decommissioning and termination of the license (including NRC's confirmatory survey). About 15 people watched the Pathfinder video (mostly NRC staff and Keystone Center staff). After the first video, NRC showed a video tape prepared by a local cable station in Cleveland, Ohio, that profiled local community concerns about the Chemetron site at Bert Avenue.

The observers at the workshop consisted mostly of representatives from utilities, DOE and DOE contractors, and decommissioning contractors. The group included a few citizen group representatives. On the second day, a group from Greenpeace-Great Lakes Region made a statement about the need to cease generation of nuclear waste. There was no distracting or flagrant behavior by any of the observers. The entire workshop proceeded in an orderly and constructive manner, although some of the participants complained about the limited time (45 minutes) available for lunch.

We are currently assessing the agenda for the San Francisco workshop based on the experience of the group in Chicago. If anyone has any comments or suggestions about the agenda, I need to hear by 2/4/93 so that they may be folded in to the production of the agenda for San Francisco. In addition, if anyone has insights into the number and characteristics of observers at any of the workshops, tell me ASAP so I can pass this along to Chip Cameron and Keystone Center.

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NUCLEAR REGULATORY COMMISSION

10 CFR Part 20

Radiological Criteria for Decommissioning of
NRC-licensed Facilities; Workshops

AGENCY: Nuclear Regulatory Commission.

ACTION: Notice of Workshops.

SUMMARY: The Nuclear Regulatory Commission (NRC) is preparing to initiate an enhanced participatory rulemaking on establishing the radiological criteria for the decommissioning of NRC-licensed facilities. The Commission intends to enhance the participation of affected interests in the rulemaking by soliciting commentary from these interests on the rulemaking issues before the staff develops the draft proposed rule. The Commission plans to conduct a series of workshops to solicit commentary from affected interests on the fundamental approaches and issues that must be addressed in establishing the radiological criteria for decommissioning. The workshops will be held in various locations throughout the United States beginning in January, 1993 and will

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be open to the public.

DATES: The schedule for the workshops is as follows:

January 27 and 28, 1993	Chicago, IL.
February 23 and 24, 1993	San Francisco, CA.
March 12 and 13, 1993	Boston, MA.
March 23 and 24, 1993	Dallas, TX.
April 13 and 14, 1993	Philadelphia, PA.
April 29 and 30, 1993	Atlanta, GA.
May 6 and 7, 1993	Washington, D.C. -

(National Workshop)

As discussed later in this notice, the workshop discussions will focus on the issues and approaches identified in a Rulemaking Issues Paper prepared by the NRC staff. The Commission will accept written comments on the Rulemaking Issues Paper from the public, as well as from workshop participants. Written comments should be submitted by May 28, 1993.

ADDRESSES: Send written comments on the Rulemaking Issues Paper to: Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555. ATTN: Docketing and Service Branch. Hand deliver comments to 11555 Rockville Pike, Rockville, Maryland between 7:45 a.m. and 4:15 p.m. on Federal workdays. The Rulemaking Issues Paper is available from Francis X. Cameron (See "FOR FURTHER INFORMATION CONTACT").

FOR FURTHER INFORMATION CONTACT: Francis X. Cameron, Special Counsel for Public Liaison and Waste Management, Office of the General Counsel, Washington D.C. 20555, Telephone: 301-504-1642.

SUPPLEMENTARY INFORMATION:

Background

The NRC has the statutory responsibility for protection of health and safety related to the use of source, byproduct, and special nuclear material under the Atomic Energy Act. The NRC believes that one portion of this responsibility is to ensure the safe and timely decommissioning of nuclear facilities which it licenses and to provide guidance to licensees on how to plan for and prepare their sites for decommissioning. Once licensed activities have ceased, licensees are required to decommission their facilities so that their licenses may be terminated. This requires that the radioactivity in land, groundwater, buildings, and equipment resulting from the licensed operation be reduced to levels that allow the property to be released for unrestricted use. Licensees must then demonstrate that all facilities have been properly decontaminated and that radioactive material has been transferred to authorized recipients. Confirmatory surveys are conducted by NRC, where appropriate, to verify that sites meet NRC radiological criteria for decommissioning.

The types of nuclear fuel cycle facilities that will require decommissioning include nuclear power plants; non-power (research and test) reactors; fuel fabrication plants, uranium hexafluoride production plants, and independent spent fuel storage installations. In addition there are currently about 24,000 materials licensees. About one third of these are NRC licensees, while the remainder are licensed by Agreement States acting under the authority of the Atomic Energy Act, Section 274. These licensees include universities, medical institutions, radioactive source manufacturers, and companies that use radioisotopes for industrial purposes. About 50% of NRC's 7,500 materials licensees use either sealed radioactive sources or small amounts of short-lived radioactive materials. Decommissioning of these facilities should be relatively simple because there is usually little or no residual radioactive contamination. Of the remaining 50%, a small number (e.g. radioactive source manufacturers, radiopharmaceutical producers, and radioactive ore processors) conduct operations that could produce substantial radioactive contamination in portions of the facility. These facilities, like the fuel cycle facilities identified above, must be decontaminated before they can be safely released for unrestricted use.

Several hundred NRC and Agreement State licenses are terminated each year. The majority of these licenses involve limited operations, produce little or no radioactive contamination, and

do not present complex decommissioning problems or potential risks to public health or the environment from residual contamination. However, as the nuclear industry matures, it is expected that more and more of the larger nuclear facilities that have been operating for a number of years will reach the end of their useful lives and be decommissioned. Therefore, both the number and complexity of facilities that will require decommissioning is expected to increase.

The Commission believes that there is a need to incorporate into its regulations radiological criteria for termination of licenses and release of land and structures for unrestricted use. The intent of this action would be to provide a clear and consistent regulatory basis for determining the extent to which lands and structures must be decontaminated before a site can be decommissioned. The Commission believes that inclusion of criteria in the regulations would result in more efficient and consistent licensing actions related to the numerous and frequently complex site decontamination and decommissioning activities anticipated in the future. A rulemaking effort would also provide an opportunity to reassess the basis for the residual contamination levels contained in existing guidance in light of changes in basic radiation protection standards and decommissioning experience obtained during the past 15 years.

The new criteria would apply to the decommissioning of power reactors, non-power reactors, fuel reprocessing plants, fuel fabrication plants, uranium hexafluoride production plants, independent spent fuel storage installations, and materials licenses. The criteria would apply to nuclear facilities that operate through their normal lifetime, as well as to those that may be shut down prematurely. The proposed criteria would not apply to uranium (other than source material) mines and mill tailings, high-level waste repositories, or low-level waste disposal facilities.

Until the new criteria are in place, the Commission intends to proceed with the decommissioning of nuclear facilities on a site-specific basis as the need arises considering existing criteria. Case and activity-specific risk decisions will continue to be made as necessary during the pendency of this process.

The Enhanced Participatory Rulemaking

The Commission believes it is desirable to provide for early and comprehensive input from affected interests on important public health and safety issues, such as the development of radiological criteria for decommissioning. Accordingly, the Commission is initiating an enhanced participatory rulemaking to establish these criteria. The objective of the rulemaking is to enhance the participation of affected interests in the rulemaking by

soliciting commentary from these interests on the rulemaking issues before the NRC staff develops the draft proposed rule. The NRC staff will consider this commentary in the development of the draft proposed rule, as well as document how these comments were considered in arriving at a regulatory approach. The Commission believes that this will be an effective method for illuminating the decision making process on complex and controversial public health and safety issues. This approach will ensure that the important issues have been identified; will assist in identifying potential information gaps or implementation problems; and will facilitate the development of potential solutions to address the concerns that affected interests may have in regard to the rulemaking.

The early involvement of affected interests in the development of the draft proposed rule will be accomplished through a series of workshops. A workshop format was selected because it will provide representatives of the affected interests with an opportunity to discuss the rulemaking issues with one another and to question one another about their respective positions and concerns. Although the workshops are intended to foster a clearer understanding of the positions and concerns of the affected interests, as well as to identify areas of agreement and disagreement, it is not the intent of the workshop process to attempt to develop a consensus agreement on the rulemaking issues. In addition to the commentary from the workshop

participants, the workshops will be open to the public and the public will be provided with the opportunity to comment on the rulemaking issues and the workshop discussions at discrete intervals during the workshops.

The normal process for conducting Commission rulemakings is NRC staff development of a draft proposed rule for Commission review and approval, publication of the proposed rule for public comment, consideration of the comments by the NRC staff, and preparation of a draft final rule for Commission approval. In the enhanced participatory rulemaking, not only will comments be solicited before the NRC staff prepares a draft proposed rule, but the mechanism for soliciting these early comments will also provide an opportunity for the affected interests and the NRC staff to discuss the issues with each other, rather than relying on the traditional one-to-one written correspondence with the NRC staff. After Commission review and approval of the draft proposed rule that is developed using the workshop commentary, the general process of issuing the proposed rule for public comment, NRC staff evaluation of comments, and preparation of a draft final rule for Commission approval, will occur.

Participants.

In order to have a manageable discussion among the workshop participants, the number of participants in each workshop must be limited. Based on discussions with experts on workshop facilitation, the NRC staff believes that the optimum size of the workshop group is fifteen to twenty participants. Due to differing levels of interest in each region, the actual number of participants in any one workshop, as well as the number of participants that represent a particular interest in any one workshop, may vary. Invitations to attend the workshops will be extended by the NRC staff using several selection criteria. First, to ensure that the Commission has the benefit of the spectrum of viewpoints on the issues, the NRC staff is attempting to achieve the participation of the full range of interests that may be affected by the rulemaking. The NRC staff has identified several general interests that will be used to select specific workshop participants -- state governments, local governments, tribal governments, Federal agencies, citizens groups, nuclear utilities, fuel cycle facilities, and non-fuel cycle facilities. In addition to these interests, the staff also plans to invite representatives from the contracting industry that performs decommissioning work and representatives from professional societies, such as the Health Physics Society and the American Nuclear Society. The NRC anticipates that most of the participants will be representatives of organizations. However,

it is also possible that there may be a few participants who, because of their expertise and influence, will participate without any organizational affiliation.

The second selection criterion is the ability of the participant to knowledgeably discuss the full range of rulemaking issues. The NRC staff wishes to ensure that the workshops will elicit informed discussions of options and approaches, and the rationale for those options and approaches, rather than simple statements of opinion. The NRC staff's identification of potential participants has been based on an evaluation of such factors as the extent of a potential participant's experience with a broad range of radiation protection issues and types of nuclear facilities, specific experience with the decommissioning issue, and the extent of a potential participant's substantive comment and participation on previous Commission regulatory or licensing actions.

The third criterion emphasizes participation from organizations within the region encompassed by the workshop. As much as practicable, those organizations that primarily operate within the region, as opposed to regional units of national organizations, will have priority in terms of participating in the corresponding regional workshops. Organizations with a national standing will be part of the "national" workshop to be held in Washington, D.C.

Wherever possible, the NRC staff plans to arrange the participation of individual organizations in the workshops through national organizations such as the Organization of Agreement States, and the Conference of Radiation Control Program Directors (CRCPD). There will also be some flexibility to later include organizations who were not originally identified in the staff survey of potential participants. In order to provide the public with information on the types of organizations that may eventually participate in the workshops, the Commission has provided the following summary:

- o State governments. The Organization of Agreement States and the CRCPD are willing to coordinate the participation of individual states in the regional workshops. The NRC staff has also notified the National Governor's Association, the Western Governors Association, the National Conference of State Legislatures, and the National Association of Attorneys General of the upcoming workshops.
- o Local governments. The NRC staff has contacted the National Association of Counties and the county associations in each state to identify potential local government participants.
- o Tribal governments. The NRC staff has contacted three national tribal organizations -- Native Americans for a Clean Environment, the National Congress of American

Indians, and the Council of Energy Resource Tribes -- in regard to the participation of tribal Governments in the regional workshops.

- o Citizens groups. The NRC staff has contacted several citizens groups at the national level in regard to their general interest in participating in the national workshop. The groups contacted include the Sierra Club, the Natural Resources Defense Council, the Nuclear Information Resource Service, Public Citizen, U.S. Public Interest Research Group, the League of Women Voters, the National Audubon Society, the Union of Concerned Scientists, and Physicians for Social Responsibility.

In regard to local and regional citizens groups, the NRC staff has had extensive discussions with the NRC regional personnel, state radiation protection control officials, and others, on potential citizen group participation at the regional level. Based on these discussions, the NRC staff has contacted a number of citizens groups about their potential interest in the enhanced participatory rulemaking.

- o Nuclear utilities. The Nuclear Management and Resources Council (NUMARC) will coordinate the participation of utilities in the workshops.

- o Fuel cycle facilities. The United States Council on Energy Awareness (USCEA) and the Fuel Cycle Facilities Forum will coordinate the participation of fuel cycle companies in the workshops.

- o Non-fuel cycle facilities. The NRC staff has contacted a number of organizations in this category about potential participation in the workshops, including regional radioisotope users groups. The USCEA Committee on Radionuclides and Radiopharmaceuticals assisted in coordinating the participation of the members of these and other non-fuel cycle entities in the workshops. Participants will be drawn from radiopharmaceutical manufacturers, biomedical research radionuclide manufacturers, the medical profession, sealed source manufacturers, and the university research community.

- o Decommissioning contractors. In order to ensure that information on decommissioning costs and methods are presented in the workshops, the NRC staff has contacted several of the companies that perform decommissioning work in regard to workshop participation.

- o Federal agencies. The NRC staff has contacted several Federal agencies about participation in the workshops. The Environmental Protection Agency (EPA), because of its

expertise and responsibilities, will not only participate in the workshops, but also has been consulted by the NRC staff on the development of the Rulemaking Issues Paper and will be consulted in the evaluation of the workshop comments. EPA has been very supportive of the Commission's enhanced participatory rulemaking and has already provided the NRC staff with assistance on this effort. EPA will be fully involved in the workshops and in providing comments to the NRC staff on the rulemaking issues. It is anticipated that the EPA will also later use the workshop commentary in the development of its regulatory approach for decommissioning. The Commission believes that this consultative approach with EPA will be an efficient way to utilize Federal resources in developing an effective and consistent federal approach to decommissioning standards.

The NRC staff has also had several discussions with the Department of Energy (DOE) about the enhanced participatory rulemaking process and potential DOE participation in the workshops. DOE has indicated a preliminary interest in participating in the national workshop. Although the Commission's decommissioning standards will generally not be directly applicable to DOE facilities, DOE possesses substantial expertise in the decommissioning area that will be a useful source of information in the national workshop. It should be noted that under the Formerly Utilized Site

Remedial Action Program (FUSRAP), and in some other circumstances, DOE may take title to a licensee's or former licensee's site for cleanup and long term care, including monitoring. The NRC staff has also discussed the new rulemaking initiative with several other Federal agencies and interagency coordinating committees. The NRC staff anticipates that federal agency participation will occur in the national workshop.

- o Professional societies. The NRC staff has contacted the Health Physics Society, the American Nuclear Society, and other professional societies in regard to their potential interest in participating in the national workshop.

Workshop Location, Schedule, and Format.

The Commission intends to conduct the workshops on a regional basis. Although, there will be one national workshop in Washington D.C. for organizations with a national focus, the rest of the workshops will be held at various locations throughout the United States. The national workshop is not intended to be a summary of the other workshops, and the NRC staff does not intend to give any greater weight to comments made during that workshop than to any other workshop. The regional framework will allow the Commission to hear from as many knowledgeable organizations at the local level as possible. These local organizations will

bring a unique perspective to the discussion of the rulemaking issues, and the regional workshops will also give the NRC an opportunity to interact with organizations with which it has not previously had the opportunity to do so.

The existing NRC regional framework was used to select the workshop locations, with slight adjustments made to accommodate areas with a heightened interest in decommissioning activities, as well as to maximize participation in the workshops. Notification of the specific meeting locations in each of the cities that have been selected as a workshop site will be announced through publication in the Federal Register and letters to individual participants.

To assure that each workshop addresses the issues in a consistent manner, the workshops will have a common pre-defined scope and agenda focused on the Rulemaking Issues Paper discussed below. However, the workshop format will be sufficiently flexible to allow for the introduction of any additional issues that the participants may want to raise. At each workshop, the NRC staff will begin each discussion period with a brief overview of the rulemaking issues to be discussed and the remainder of the workshop will be devoted to a discussion of the issues by the participants. The workshop commentary will be transcribed and made available to participants and to the public.

Personnel from The Keystone Center, a nonprofit organization located in Keystone, Colorado, will serve as neutral facilitators for each workshop. The facilitators will chair the workshop sessions and ensure that participants are given an opportunity to express their viewpoints, assist participants in articulating their interests, ensure that participants are given the opportunity to question each other about their respective viewpoints, and assist in keeping the discussion moving at a pace that will allow all major issue areas to be addressed.

Rulemaking Issues Paper.

The NRC staff has prepared a Rulemaking Issues Paper to be used as a focal point for the workshop discussions. This paper, which will be distributed to participants in advance of the workshops, sets forth in neutral terms the issues that must be addressed in the rulemaking, as well as background information on the nature and extent of the problem to be addressed. In framing the issues and approaches discussed in the Rulemaking Issues Paper, the NRC staff has attempted to anticipate the variety of views that exist on these approaches and issues. The paper will provide assistance to the participants as they prepare for the workshops, suggest the workshop agenda, and establish the level of technical discussion that can be expected at the workshops. The workshop discussions are intended to be used by the staff in developing the draft proposed rule. Prior to the workshops no staff

positions will be taken on the rulemaking approaches and issues identified in the Rulemaking Issues Paper. As noted earlier, to the extent that the Rulemaking Issues Paper fails to identify a pertinent issue, this may be corrected at the workshop sessions.

The discussion of issues is divided into two parts. First are two primary issues dealing with: 1) the objectives for developing radiological criteria; and 2) application of practicality considerations. The objectives constitute the fundamental approach to the establishment of the radiological criteria, and the NRC staff has identified four distinct possibilities including: 1) Risk Limits, which is the establishment of limiting values above which the risks to the public are deemed unacceptable, but allows for criteria to be set below the limit using practicality considerations; 2) Risk Goals, where a goal is selected and practicality considerations are used to establish criteria as close to the goal as practical; 3) Best Effort, where the technology for decontamination considered to be the best available is applied; and 4) Return to Preexisting Background, where the decontamination would continue until the radiological conditions were the same as existed prior to the licensed activities.

Following the primary issues are several secondary issues that are related to the discussions of the primary issues, but which the NRC staff believe warrant separate presentations and

discussions. These secondary issues include the time frame for dose calculation, the individuals or groups to be protected, the use of separate criteria for specific exposure pathways such as groundwater, the treatment of radon, and the treatment of previously buried materials.

The Rulemaking Issues Paper will be provided to each potential workshop participant. Additional copies will be available to members of the public in attendance at the workshop. Copies will also be available from the NRC staff contact identified above. In addition to the comments on the Rulemaking Issues Paper provided at the workshops, the Commission is also receptive to the submittal of written comments on the rulemaking issues, as noted under the heading "DATES".

Dated at Rockville, MD this day of , 1992.

For the Nuclear Regulatory Commission.

Samuel J. Chilk,
Secretary of the Commission

Regulatory Approaches



Upper Panel

Accepts

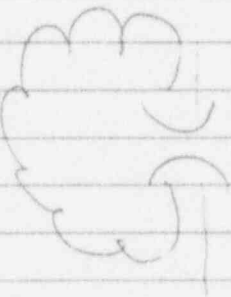
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Risk Goals

Superfund Remedial

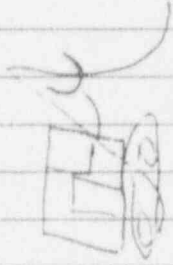
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or

Background

Blue water
 Mining Sites
 Remedial ?



Technology Based

Proximate Remedial

* last time

NRC SITE CLEANUP CRITERIA WORKSHOP
Draft Agenda
January 6, 1993

- Technologies
- Licenses
- Prof. T. Case

Day 1

9:00 Coffee

9:30 Welcome and Background

workshop info?
Plan by
action?
- Diff document?

Enhanced Participatory Rulemaking and the Establishment of Site Cleanup Criteria -- Chip Cameron, NRC

- What is the Enhanced Participatory Rulemaking Process and why has NRC selected it?
- Why does NRC want to develop cleanup criteria?

Add EPA
- Link to CERCLA
- Site specific standards?

9:50 Workshop Format -- Michael Lesnick, Barbara Stinson and Connie Lewis, The Keystone Center

- What are the goals and objectives?
- What is the agenda?
- What are the groundrules for conducting the workshop and what is the role of the facilitators?

10:00 Participant Introductions

- Name, affiliation, and location
- Two important issues for discussion in the workshop

10:45 Break

11:00 Brief Review of the Issues Paper and International Standards -- Don Cool, NRC

- What are the issues?
- What decommissioning approaches are other countries using?

11:30 Decommissioning Process and Case Studies -- Michael Weber, NRC

- What is decommissioning?
- ~~What practical lessons has NRC learned?~~

12:00 Break

Public Comment

12:15 Working Lunch Introductory Discussion

- The Rulemaking Issues Paper identifies four possible fundamental objectives which could serve as the basis for a regulatory approach to site cleanup standards. In terms of the alternative regulatory approaches reflected in the four fundamental objectives, what are the relative advantages and disadvantages of developing and using generic site cleanup standards as opposed to using site-specific approaches?

1:15 Cross-Cutting Issues Discussion - A discussion of the cross-cutting issues that can be used to compare and contrast the alternative regulatory approaches for developing cleanup standards

- To what extent do the alternative regulatory approaches protect human health and the environment?
individuals and/or
- What population(s) should be protected, in what locations, and over what timeframe? What are the relative merits of ~~each~~ alternative regulatory approach?
of
- What level(s) ~~is sufficient to ensure~~ protection of ~~individuals and~~ population(s)? What are the relative merits of each alternative regulatory approach in terms of achieving this level?
should be achieved?
- Should human standards be used to protect natural systems?
why or why not?

3:00 Public comment

3:15 Break

3:30 Cross-Cutting Issues Discussion (Continued)
practical implementation

- How should cost and other ~~practical~~ considerations be considered in selecting a regulatory approach for the standards?
- What are the cost and practical considerations that relate to each of the alternative regulatory approaches?
- What weight should be given to these considerations in selecting a regulatory approach?
- How do each of the alternative regulatory approaches affect the types and distributions of costs and benefits?
- If a cost-benefit approach is used, what costs and benefits should be considered? Should individual or population (or both) doses be considered? If costs are balanced against dose averted, what value should be used in evaluating the ratio (e.g., \$1000 per person-rem)?

Does this?

Should a separate set of criteria be established to protect systems other than humans?

5:15 Public comment
 5:30 Summary and Adjournment

Day 2

8:00 Coffee

8:30 Cross-Cutting Issues Discussion (Continued)

- What ^{technical capabilities} ~~technologies~~ are necessary and available for use of each of the alternative regulatory approaches?

What capabilities would be needed to implement the standards (e.g., remediation, modelling, site characterization, regulatory review, licensee demonstration, monitoring)? ^{approaches}

Are they currently available? Are they expected and, if so, when? ^(measurement)

To what extent do the technologies transfer the hazard to another medium or other populations? ~~is the net benefit positive (e.g., producing a smaller volume of hazardous waste to reduce a larger volume radioactive waste)?~~

What are the alternative impacts?

10:00 Public comment

10:15 Break

10:30 Cross-Cutting Issues Discussion (Continued)

- To what extent are the alternative regulatory approaches compatible with existing regulatory structures? ^{local is state}

-- Do they need to be compatible? What are the advantages and disadvantages? ^{consistent or interest?}

To what extent do the alternative regulatory approaches achieve long-term, regulatory stability? ^{and should promote decommissioning in general?}

Does each alternative regulatory approach promote regulatory compliance? Does each provide sufficient incentives for timely and effective decommissioning?

How ~~easily can~~ the alternative regulatory approach be integrated with the existing ^{can and should} ~~nuclear~~ regulatory framework? ^{+ local}
 other relevant federal and state legislation and regulations? ^{to decommissioning}

12:00 Public Comment

*land use
 water
 ground water*

Make

*Need regulatory
 Briefing
 other players
 inputs?*

** Include
 about
 from SDMP
 workbooks?*

12:15 Break

12:30 Working Lunch - Cross-Cutting Issues Discussion (Continued)

- What are the waste management implications of each alternative regulatory approach?
 - How do each of the alternative regulatory approaches relate to the quantity and types of wastes produced? ~~is sufficient capacity available or expected to be available?~~
 - To what extent does each alternative regulatory approach ~~merely~~ transfer the risk to another population?
 - How should each alternative regulatory approach apply to former waste disposals ~~under 10 CFR 20.304 and 302?~~
 - To what extent does each alternative regulatory approach address other options for waste management, including recycling and reuse?

→ Adol medium

2:15 Public Comment

2:30 Break

2:45 Other Key Issues (Remainder of issues not already covered)

made of 10:30 section

- ^{How} Should the standards consider the effects of radon releases? ~~if so, how should this be done?~~
- Should criteria be established for protecting specific pathways or resources (e.g., groundwater)?
- Will there be cases where release for "unrestricted use" may not be feasible? How should these situations be addressed?

3:45 Public Comment

4:00 Summary of Workshop Issues

4:30 Adjourn

* keep to schedule by next Tuesday at the latest.

NRC Radiological Criteria Workshop
Preparatory Meeting Agenda
January 11, 1993

- I. Welcome, Introduction, and Overview - Chip Cameron
- II. Preparatory Meeting Goals and Agenda Review -
Michael Lesnick and Barbara Stinson, The Keystone Center
- III. Overview of Key Workshop Components - Lesnick and Stinson
- A. Review of Discussion of Overall Workshop Goals
- B. Workshop Schedule and General Design
- C. Types of Participants (including NRC, EPA, other agencies)
- D. Role of The Keystone Center
- E. Role of NRC, EPA and other agencies
- F. Workshop Summaries
- G. Participant Support and Interviews
- H. Public Attendance and Comment
- I. Hotel Logistics and Food Arrangements
- IV. Discussion of NRC and EPA Participants' Roles - Lesnick and Stinson
- A. Role of NRC participants (those "at the table" and those attending as observers)
- B. Role of EPA participants (those "at the table" and those attending as observers)
- V. Detailed, Item-by-Item Review and Discussion of Draft Workshop Agenda - Lesnick, Stinson and presenters
- A. Discussion of content, style, and tone of all presentations
- B. Critical analysis of issues to anticipate, responses to issues, and agency staff likely to respond for the interactive agenda items
- VI. Discussion of Next Steps
- A. Prior to Chicago meeting
- B. During Chicago meeting
- C. Between meetings
- D. At conclusion

How many people?

B-11

1/11/93
Djt

NRC Site Cleanup Criteria Workshop
Issues Discussion Matrix

Cross-cutting Issues	Protection of Human Health & Environment	Cost and Other Practical Considerations	Technologies for Implementation	Compatibility with Existing Regulatory Structure	Other Key Issues <i>Waste Management</i>
Objectives					
Risk Limits					
Risk Goal					
Best Effort					
Return to Background					

Dave Golden, SCQA

*Public Comments/Questions? 1/11/93

- ① Send Regulatory Issues Paper to DOE re: PELS
- ② Notify clip of PATT attendance
- ③ ~~GEIS~~ GEIS Process + Schedule - need to resolve by EDA.

My presentation

→ Existing Criteria ⇒ Emphasize guidance (split slide)

→ License "Termination"

NRC/License Survey

→ decommissioning definition garbled

→ Varier stages → same law

→ Not all A&T facilities ⇒ "ROD study?"

⇒ ... with Table?

+ → Interface with governmental agencies

Tie issues to sites?

"considerations" rather than "issues"

Categorize issues into groups?

- technology

- policy

New Slides

Decommissioning

- definition

- process

state alternatives

Characterize licensed population
Case studies illustrate code cases use different criteria.

Regional Background

- Tan Doder, Region III

Check Hoag

Day Collas

Tan Doder

* Talk to Hugh - learn on

Key Issues Reg. Administrators.

→ How much? (what level of cleanup)?

→ Finality?

Day 2 →

⊛ EPA-NEC - Risk Harmonization -
write up answer bullet.

⊛ List of Acronyms.

→ Check Varelius, Region III

- West Chicago

⊛ CDP
x Michigan
stage

24,000 licenses

1/3 NEC, 2/3 AS

50% - sealed room
short - trial - return

112 NII

74 NTR

14 F&F

2 UP6

49 MILB

9 ICSI

<10% estimated

Enhanced Participatory Rulemaking
Simulation Workshop
January 11 - 12, 1993

Name	Affiliation	Phone
Barbara Stinson	The Keystone Center	(303) 468-5822
Michael Lesnick	"	"
Donald A. Coe	NRC/RC/ORA/RPHEB	(301) 492-3755
GARY CAMERON	NRC/OGC	301 504 1642
DOROTHY MICHAELS	NRC/OGC	301-504-1630
Marty Walsch	NRC/OGC	301-504-1740
* Wesley Hill	NRC/R-IV	(817) 860-8198
* DEAN KUNITZ	NRC/R-V	510-9750225
* THOMAS DECKER	NRC/R-II	414-574331 2559
L. L. CAMPBELL	NRC/MPR	301-504-1686
T. H. WALKER	RC/ORA	301-492-3114
Donna Sellenberger	NRC/CSP	301-504-2819
ERIC A. MACK	NRC/RCES	301 492 3737
* Charles E. Norek	NRC/R-III	(763) 790-5510
SILVIA	NRC/NMSS/LLWM	(301) 504-2519
* JEROME ROTH	NRL/R-I	215-337-5205
DAVID GOLDBIN	SCAD	301 340-2836
HUGH THOMPSON	NRC/EDO	301-504-1713
LOWELL BALSTON	SC+A, INC. / FOR EPA	(703) 843-6600
NICK LAITAS	EPA/ORIA/RSD	202 233 9350
BARBARA HATZOG	EPA/CRIP/RSD	202-233-9495
Annika Russell	EPA/ORIA/RSD	202-233-9434
W. R. RICHMOND	EPA/CRIP/RSD	202-233-9213
MICHAEL WEBER	NRC/NMSS/LLWM	(301) 504-1298
Bill M. Mann	NRC/RCES	(301) 492-3750

1/14/92

UPDATE ON THE EPR

The preparatory workshop for the EPR workshops was a success! The workshop was held in Bethesda on January 11 and 12 and involved the NRC and EPA Headquarters rulemaking teams and the NRC regions [Roth (I), Decker (II), Norelius (III), Holley (IV), and Kunihiro (V)]. Bill Morris (RES), Hugh Thompson (Deputy EDO), and Marty Malsch (Deputy General Counsel) also participated in the discussions. The workshop was facilitated by Mike Lesnick and Barbara Stinson of the Keystone Center. A hearty thanks to all who contributed to the success of the preparatory workshop. This note summarizes the workshop and identifies some of the action items coming out of the workshop in preparation for the first EPR workshop in Chicago on January 27-28.

In the first part of the workshop, we discussed the objectives of the workshops and the roles of the various parties (NRC, EPA, Keystone, members of the public). NRC will be represented at the table by Chip Cameron, Don Cool, and Mike Weber. A limited number of NRC regional staff and support staff will be present and seated away from the table. EPA will be represented by Allan Richardson and Pam Russell (both from the Office of Radiation and Indoor Air). Mike Lesnick and Barbara Stinson will facilitate the workshops. The participants will be seated at the table; members of the public will sit away from the table and will be given opportunities to ask questions or make comments at the end of each session throughout the workshop.

After this introduction, we discussed the presentations by Chip Cameron on the EPR and NRC's plans, Barbara Hostage (EPA) on EPA's involvement in the EPR and planned activities, Don Cool on the Rulemaking Issues Paper, and Mike Weber on Decommissioning and the Case Studies. The presenters received constructive comments from the other participants on the content and structure of the presentations.

The workshop focused next on the agenda for the EPR workshops. Participants walked through and discussed each of the agenda topics. This discussion was most productive in developing a common understanding of the issues for discussion and relating the agenda topics back to the Rulemaking Issues Paper. Participants spent nearly 5 hours discussing the agenda and associated issues.

The workshop concluded with a brief discussion of anticipated questions about the EPR. After the workshop concluded, Keystone Center staff discussed NRC regional programs and issues with representatives of each region. These discussions were invaluable in familiarizing the facilitators with the types of issues that may surface in the workshops. Wes Holley, Region IV, also brought a video tape and slides of the Pathfinder Reactor decommissioning, which he showed to Mike Lesnick, Chip Cameron, and Mike Weber on Tuesday afternoon and Wednesday morning. The video and slides helped prepare the participants for the workshops by providing graphic images to the facilitator and NRC staff on the Pathfinder decommissioning. NRC staff intends to make the video available for showing at the workshops to show participants what "decommissioning" looks like in the real world.

About 25 participants are expected for the Chicago workshop, providing a good balance of industry, State, local, environmental, citizen, and professional society interests. The list of participants in this workshop (and subsequent

B-14

ones) will be mailed to the participants of each workshop in advance along with the agenda for the workshop. Keystone intends to finalize the agenda based on the discussion and comments at the preparatory workshop and mail it out to participants by next Tuesday (1/19/93). The decommissioning case studies and description of international standard activities will also be mailed out within the next couple of days. In addition, Chip Cameron is preparing a Commission paper to describe the status and planning for the first workshop and transmit this information to the Commission before the workshop. RES is also developing a schedule for the rulemaking, including provisions for a national scoping meeting on the Generic Environmental Impact Statement, review by the Advisory Committee on Nuclear Waste and the Agreement States, completion of necessary supporting documents, and developing responses to comments and issues identified in the workshops. Chip is also developing a outline of answers to anticipated questions about the workshop. This information will be distributed to the Regions and within NMSS as it becomes available.

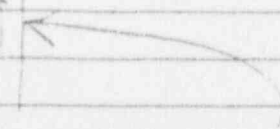
The NRC and EPA rulemaking teams will be meeting with NRC and EPA regional staff in Chicago at 3:00 on 1/26/93 to discuss any last minute information about the issues that may surface and the participants that may attend the first EPR workshop. Similar background meetings will be scheduled in each of the NRC regions prior to each workshop. In general, these will occur during the late afternoon immediately preceding the workshops.

NRC staff who intend to attend the workshops should inform Mike Weber of their intentions so that this information can be passed onto the Keystone Center to develop a head count in advance of each workshop and to coordinate hotel information. Any comments or questions about this summary should be referred to Mike Weber at (301) 504-1298 or "mfw" on NRC E-mail.

#

Regulatory Approvals

STOP



Upper Panel

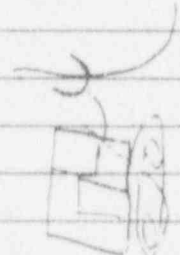
UNIRRA
RADIATION
STANDARDS



HA

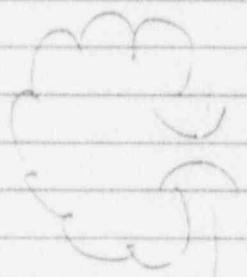
Risk Levels

Superfund
Requirements
- THINK WE WANT
STANDARDS



Technology Based

Presumptive
Requirements



sp

Background

Like water
Money Sink
KIMBERLY ?

SITE CLEANUP WORKSHOPS-ANTICIPATED QUESTIONS TO NRC STAFF

- o What is the relationship of the site cleanup rulemaking to the BRC Policy/Isn't this an attempt to sneak through a BRC Policy?
- o What are the implications of the BRC provision in the National Energy Policy Act for the site cleanup rulemaking?
- o How and when will the NRC address the issues of the disposal of waste and the recycle of radioactive material from site cleanup efforts?
- o How and when will the issue of state compatibility in the site cleanup area be addressed?
- o What is the EPA-NRC risk harmonization program and what are the implications for the site cleanup rulemaking?
- o How will the public be involved in efforts to establish the compliance methodologies, models, environmental impact statements, and other actions that are necessary supplements to the rulemaking?
- o Will the NRC develop a draft text of the proposed rule for participant review? Will the draft proposed rule that is submitted to the Commission for review be provided to workshop participants?
- o Why isn't the EPA developing these rules?
- o In what way, if any, will these rules be applicable to DOE sites?

BME
w/...
Date 1/14/93



*Enhanced Participatory Rulemaking
on Radiological Criteria for Decommissioning*

B-17

Decommissioning

- Definition and Process
- Practical Aspects and Issues

Michael Weber
U.S. Nuclear Regulatory Commission
Enhanced Participatory Rulemaking Workshops
1993

Decommissioning

Definition

Process for safely removing a nuclear facility from service and reducing residual radioactivity to a level that permits release of unrestricted use and termination of license¹

¹As defined in NRC's 1988 Decommissioning Rule

Decommissioning

Existing NRC Requirements

1988 Decommissioning Rule covered:

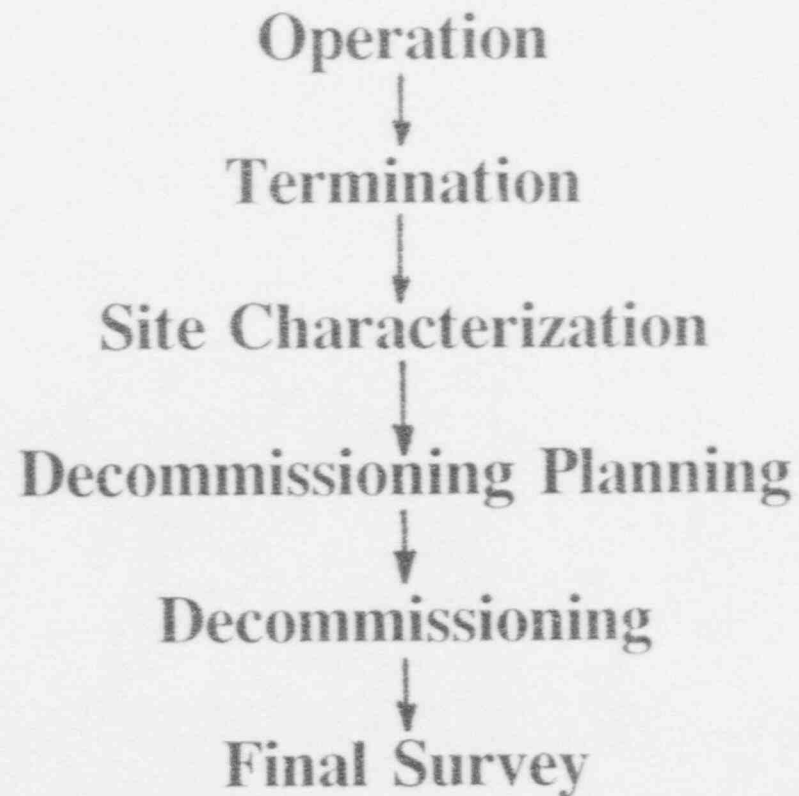
- Planning
- Alternatives (for Reactors)
- Financial Assurance
- Recordkeeping
- License Termination Procedures

BUT NOT...

Radiological Criteria for Decommissioning

Decommissioning

Process



Decommissioning

Case Studies

- Represent a range of actual decommissioning projects
- Highlight practical issues associated with decommissioning
- Identify lessons learned

Decommissioning

Case Studies

Name	Location	Facility Type	Principal Radionuclides	Regulatory Status
UNC-Naval Products	Montville, CT	Fuel Facility	High Enriched Uranium	Active NRC License
Lerr-McGee Cimarron	Crescent, OK	Fuel Facility	Low Enriched Uranium, Plutonium	Active NRC License
Pathfinder Atomic Power Plant	Sioux Falls, SD	Research Power Reactor	Activation Products (^{60}Co , ^{63}Ni , ^{55}Fe)	Active NRC License
GTE-Sylvania	Manchester, NH	Materials Facility	Thorium	Terminated NH License
Radium Chemical Company	Woodside, NY	Materials Facility	Radium	Terminated NY License; Superfund Site
BOMARC Missile Accident Site	Ocean County, NJ	Nuclear Weapons Site	Plutonium	Defense Installation Restoration Program

Decommissioning

Case Study Issues

- Translating residual contamination into dose or risk
- Averaging of contaminant concentrations
- Former waste disposal sites
- Termination of multiple licenses
- Time period for dose calculations
- Technical basis for existing criteria
- Phased decommissioning
- Reliance on institutional controls
- Exposure to radon
- Disposal of low-activity waste
- Availability of waste disposal capacity

MILESTONES
ENHANCED PARTICIPATORY RULEMAKING - SITE CLEANUP CRITERIA

SEVEN WORKSHOPS - MAY 7, 1993

WRITTEN COMMENTS ON RULEMAKING ISSUES PAPER - MAY 28, 1993

NRC STAFF SUMMARY OF ALL COMMENTS - JULY 1, 1993

GEIS SCOPING COMPLETE - JUNE 10, 1993

NRC STAFF DRAFT PROPOSED RULE AVAILABLE - OCTOBER, 1993

DRAFT RULE TO COMMISSION - DECEMBER, 1993

PROPOSED RULE /DRAFT GEIS ISSUED FOR PUBLIC COMMENT - MARCH, 1994

FINAL RULE - DECEMBER, 1994

NOI?

+ Response?
Too Early

from? →

Schedule is unrealistic

B-18



*Enhanced Participatory Rulemaking
on Radiological Criteria for Decommissioning*

Decommissioning

- Definition and Process
- Practical Aspects and Issues

Michael Weber
U.S. Nuclear Regulatory Commission
Enhanced Participatory Rulemaking Workshops
1993

G-1

Decommissioning

Definition

Process for safely removing a nuclear facility from service and reducing residual radioactivity to a level that permits release of unrestricted use and termination of license¹

¹As defined in NRC's 1988 Decommissioning Rule

Decommissioning

Existing NRC Requirements

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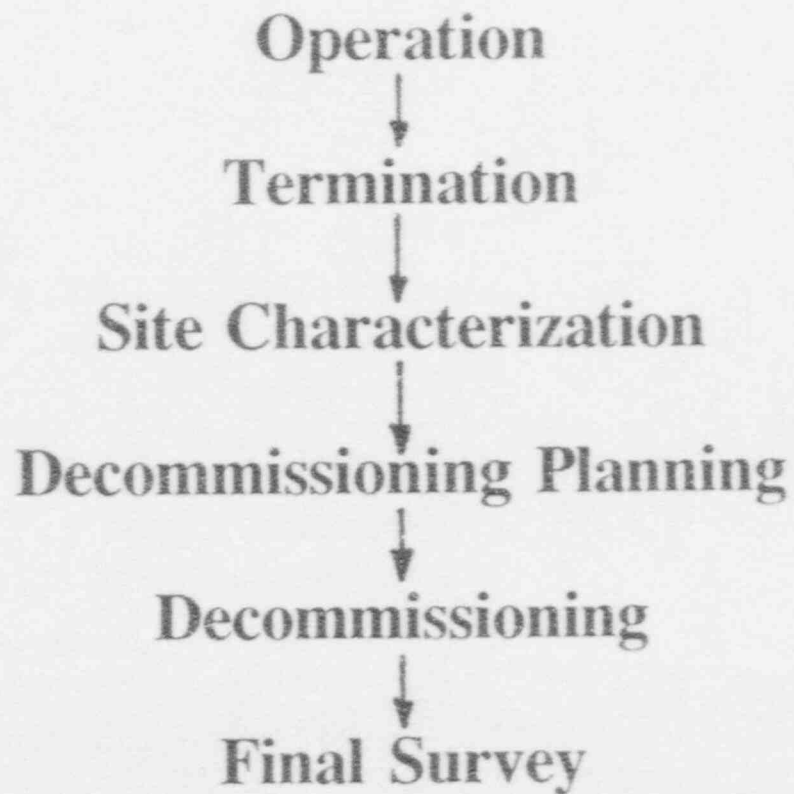
- Planning
- Alternatives (for Reactors)
- Financial Assurance
- Recordkeeping
- License Termination Procedures

BUT NOT...

Radiological Criteria for Decommissioning

Decommissioning

Process



Decommissioning

Case Studies

- Represent a range of actual decommissioning projects
- Highlight practical issues associated with decommissioning
- Identify lessons learned

Decommissioning

Case Studies

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GTE-Sylvania	Manchester, NH	Materials Facility	Thorium	Terminated NH License
Radium Chemical Company	Woodside, NY	Materials Facility	Radium	Terminated NY License; Superfund Site
BOMARC Missile Accident Site	Ocean County, NJ	Nuclear Weapons Site	Plutonium	Defense Installation Restoration Program

Decommissioning

Case Study Issues

- Translating residual contamination into dose or risk
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- Technical basis for existing criteria
- Phased decommissioning
- Reliance on institutional controls
- Exposure to radon
- Disposal of low-activity waste
- Availability of waste disposal capacity

• Interplay of (regulatory)
state & local
regimes

- we will accept certain of your comments:
- CEAS

MILESTONES
ENHANCED PARTICIPATORY RULEMAKING - SITE CLEANUP CRITERIA

- SEVEN WORKSHOPS - MAY 7, 1993
- WRITTEN COMMENTS ON RULEMAKING ISSUES PAPER - MAY 28, 1993
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- PROPOSED RULE /DRAFT GEIS ISSUED FOR PUBLIC COMMENT - MARCH, 1994
- FINAL RULE - DECEMBER, 1994

C-2

NAC Site Cleanup Criteria Workshop

Issues Discussion Matrix

Cross-cutting Issues	Protection of Human Health & Environment	Cost and Other Practical Considerations	Technologies for Implementation	Compatibility with Existing Regulatory Structure	Other Key Issues <i>Waste Management</i>
Objectives					
Risk Limits					
Risk Goal					
Best Effort					
Return to Background					

NUCLEAR REGULATORY COMMISSION

Public Workshop to Exchange Information and Lessons Learned in Remediating
Radioactively Contaminated Sites

AGENCY: Nuclear Regulatory Commission

ACTION: Notice of Public Workshop

SUMMARY: This notice is to inform the public of a workshop to exchange information and review lessons learned in remediating radioactively contaminated sites. Interested individuals may attend a public workshop on November 19, 1992, at the Potomac Inn, 3 Research Court, Rockville Maryland 20850, telephone (301) 840-0200. The workshop will begin at 8:30 a.m. and continue until about 5:30 p.m.

BACKGROUND: In 1990, the NRC developed the Site Decommissioning Management Plan (SDMP) to identify and resolve issues associated with the timely cleanup of radiologically contaminated sites. The NRC staff determined that these sites deserved special attention to ensure they were decontaminated and decommissioned in a timely and effective manner. Over 40 sites are now included in the SDMP. The SDMP sites have buildings, former waste disposal areas, large piles of tailings from mineral processing, groundwater, and soil contaminated with low levels of uranium, thorium, or other radioactive materials. Consequently, the sites present varying degrees of radiological

Enclosure 1

C-4

hazard, cleanup complexity, and cost. In some cases, decommissioning activities have been initiated, or are nearing completion; at others, decommissioning plans have not been made and no work has been started.

In April 1992, the NRC developed an "Action Plan to Ensure Timely Cleanup of SDMP sites," which was published in the Federal Register on April 16, 1992 (57 FR 13389). The objective of the plan was to communicate the Commission's general expectation that sites listed in the SDMP be cleaned up in a timely and effective manner. As part of the implementation of the Action Plan, the NRC identified the need to convene a workshop, involving licensees and other parties responsible for the SDMP sites, to facilitate sharing of lessons learned in characterizing and cleaning up contaminated sites.

CONDUCT OF THE WORKSHOP: The workshop will be held on November 19, 1992, to exchange information with the regulated community, interested parties, and members of the public on the issues associated with remediation of radiologically contaminated sites listed in the SDMP.

Speakers from the NRC will include senior NRC management responsible for establishing decommissioning policy, as well as staff from NRC's Office of Nuclear Material Safety and Safeguards, who are directly involved in managing the SDMP and in overseeing the cleanup of SDMP sites. Presentations will also be made by NRC's Office of Nuclear Regulatory Research and others on current projects to develop and improve guidance for site decommissioning. NRC speakers will address the following issues:

1. Site Decommissioning Management Plan,

2. Status of decommissioning activities,
3. The SDMP Action Plan,
4. Interim cleanup criteria for radiological contamination,
5. Guidance on termination radiation surveys, and
6. Coordination with local and other regulatory authorities.

Discussions about the interim cleanup criteria are separate and distinct from the workshops NRC has planned in support of the enhanced participatory rulemaking on radiological criteria for decommissioning. An NRC representative will, however, describe the status of NRC's plans for the enhanced participatory rulemaking. NRC has also planned a panel discussion led by NRC licensees involved in the site decommissioning process.

Presentations during the workshop will be limited to invited speakers. All attendees are encouraged to participate in question-and-answer sessions after each series of presentations, as well as in the small group breakout sessions to discuss specific issues. Persons who wish to include specific topics in the workshop should contact Mr. Harvey Spiro at the address listed below.

FOR FURTHER INFORMATION CONTACT: Harvey J. Spiro, Decommissioning and Regulatory Issues Branch, Division of Low-Level Waste Management and Decommissioning, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555, telephone (301) 504-2559.

Addressees for October 19, 1992 letter from John H. Austin regarding the SDMP
Workshop on November 19, 1992:

Mr. Mark Gradert
Aluminum Company of America
1600 Harvard Avenue
Cleveland, Ohio 44105

Mr. James E. Kerrigan
AMAX Resource Conservation Company
1626 Cole Boulevard
Golden, Colorado 80401-3293

Mr. Berne L. Haertjens
Pennsylvania Nuclear Services Operations
Babcock and Wilcox
609 North Warren Avenue
Apollo, Pennsylvania 15613

Mr. William M. Rupert
BP Chemicals America, Inc.
P.O. Box 628
Lima, Ohio 45802-0628

Mr. William C. Gannon
Cabot Corporation
County Line Road
Boyertown, Pennsylvania 19512

Mr. Michael G. Lederman
Chemetron Corporation
One Citizens Plaza
Providence, Rhode Island 02903

Mr. John D. Wolff
Chevron Corporation
P.O. Box 7924
San Francisco, California 94120-7924

→ Mr. Hayden G. Schoen
Dow Chemical U.S.A.
1261 Building
Midland, Michigan 48667

Mr. Donald P. Chabot
Engelhard Corporation
Route 152
Plainville, Massachusetts 02762

Mr. John J. Hunter
Fansteel Inc.
Number Ten Tantalum Place
Muskogee, Oklahoma 74401

Mr. Terry Smart
Waste Management of North America
17250 Newburgh Road
Livonia, Michigan 48152

Mr. John C. Stauter
Technology and Engineering Division
Kerr-McGee Corporation
P.O. Box 25861
Oklahoma City, Oklahoma 73125

Dr. Richard F. Jaeger
Magnesium Elektron
500 Point Breeze Road
Flemington, New Jersey 08822

Ms. Lisa Boettcher
Michigan Department of Natural Resources
503 North Euclid Avenue
Bay City, Michigan 48706

Mr. Dana Schnobrich
Minnesota Mining and Manufacturing Company
P.O. Box 33331
Saint Paul, Minnesota 55133-3331

Mr. Richard Connelly
NE Ohio Regional Sewer District
3826 Euclid Avenue
Cleveland, Ohio 44115-2504

Mr. George W. Dawes
Molycorp, Inc.
P.O. Box 500
Washington, Pennsylvania 15301

Mr. Robert Brown
Molycorp, Inc.
350 North Sherman Street
York, Pennsylvania 17403

Mr. Eric Marsh
RMI Titanium Company
P.O. Box 579
Ashtabula, Ohio 44004-0579

Mr. C. Richter White
Safety Light Corporation
4150-A Old Berwick Road
Bloomsburg, Pennsylvania 17815

Mr. David R. Smith
Division of Environmental Services
Shieldalloy Metallurgical Corporation
P.O. Box 768
Newfield, New Jersey 08344

Mr. Robert Gregg
UNC, Inc.
67 Sandy Desert Road
Uncasville, Connecticut 06382-0981

Ms. Diana Newman
Superfund Branch
U.S. EPA Region VII
726 Minnesota Avenue
Kansas City, Kansas 66101

Mr. Gordon J. Louttit
Whittaker Corporation
10880 Whilshire Boulevard
Los Angeles, California 90024-4163

Mr. James W. Tharp
Wyman-Gordon Company
P.O. Box 8001
North Grafton, Massachusetts 01536-8001

Mr. Robert Brown
Molycorp, Inc.
350 North Sherman Street
York, Pennsylvania 17403

Mr. Kevin Dresbach
Nuclear Energy Services
P.O. Box 930
Circleville, OH 43113

Mr. Chris Wetherall
Cryo Dynamics, Inc.
P.O. Box 935
Bangor, Maine 04402-0935

Dr. Joseph Cardito
Stone & Webster Engineering Corporation
245 Summer Street
Boston, Massachusetts 02210

Mr. Norman E. Weare
Carolina Metals, Inc.
Highway 80
P.O. Box 1366
Barnwell, South Carolina 28812

Mr. Alvin R. Smith
ALARON Corporation
Suite 203
120 Marguerite Drive
Mars, Pennsylvania 16046

Mr. Holmes Brown
Low-Level Waste Forum
c/o Afton Associates
403 East Capitol Street
Washington, DC 20003

Mr. David Culberson
Chairman
Fuel Cycle Facilities Forum
Ecotek
1219 Banner Hill Road
Erwin, TN 37650

Mr. Jack Baublitz
Associated Deputy Assistant Secretary for
Environmental Restoration
U.S. Department of Energy
Washington, DC 20585

Mr. Richard G. Shimko
Roy F. Weston
Weston Way
West Chester, Pennsylvania 19380

Ms. Lynnette Hendricks
Nuclear Management and Resources Council
1776 Eye Street
Washington, DC 20006-2496

Mr. Charles M. Hardin
Conference of Radiation Control Program Directors
205 Capitol Avenue
Frankfort, KY 40601

Ms. Heide Halik
Sierra Club
408 C Street NE
Washington, DC 20002

Mr. Marc Tenan, Executive Director
Appalachian States Low-Level
Radioactive Waste Compact Commission
207 State Street
Harrisburg, PA 17101-1103

Mr. Dan Reicher
Senior Attorney
Natural Resources Defense Council
1350 New York Avenue, N.W.
Washington, DC 20005

Dr. Allan C. B. Richardson
Standards and Criteria Branch
Office of Radiation Programs
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, DC 20460

Mr. Donald Silverman, Esq.
c/o Edison Electric Institute
710 Pennsylvania Avenue
Washington, DC 20004

Mr. Michael Alissi
Edison Electric Institute
710 Pennsylvania Avenue
Washington, DC 20004

DRAFT AGENDA
NRC Site Decommissioning Management Plan (SDMP) Workshop
November 19, 1992
Potomac Inn, Rockville, MD

- 8:30 Opening Remarks and Orientation (Bernero/Bangart)
- 8:45 Keynote Address by the NRC Chairman
- 9:15 Question and Answer Session
- 9:30 Break
- 9:45 NRC's Site Decommissioning Management Plan and Action Plan (Austin/Johnson)
- 10:15 Site Status Report (Fauver)
- 10:45 Decommissioning and Finality (Austin)
- 11:15 Question and Answer Session (Questions to the NRC Staff)
- 11:45 Lunch
- 1:00 Current Cleanup Criteria and Future Regulations and Guidance (Austin)
- Enhanced Participatory Rulemaking on Radiological Criteria (Cameron)
 - Decommissioning Timeliness Rule (Cool)
 - Existing Cleanup Criteria (Fauver)
 - Verification Surveys (Fauver)
 - Questions
- 2:30 Break
- 2:45 Regulatory Process
- Process for Reviewing and Approving Decommissioning Actions (Johnson)
 - Coordination with Federal, State, and Local Agencies (Weber)
- 3:30 Presentations By SDMP Site Owners - Notes from the Field (Austin)
(Molycorp - thorium; UNC Montville - surveys; Chemetron - site characterization and orders; B&W Apollo - process and nearing completion)
- 5:15 Closing Remarks
- 5:30 Adjourn Workshop



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

10/23
Don
Plus plan
on attending
Ray C.

October 19, 1992

Mr. Kevin Dresbach
Nuclear Energy Services
P.O. Box 930
Circleville, OH 43113

Dear Mr. Dresbach,

The Nuclear Regulatory Commission is sponsoring a public workshop to exchange information and review lessons learned in the Site Decommissioning Management Plan, or SDMP, for remediating radiologically contaminated sites. I am inviting you to participate in this workshop, which will be held on November 19, 1992, from 8:30 a.m. until 5:30 p.m. at the Potomac Inn in Rockville, Maryland. The idea for the workshop grew out of the implementation of NRC's Action Plan to Ensure Timely Cleanup of SDMP sites based on comments we received from licensees and other responsible parties. It is only through such interaction that we can effectively identify significant issues associated with site remediation and explore alternative approaches for their resolution.

The NRC Chairman will be the keynote speaker for the workshop, which will also involve NRC managers and staff members responsible for the SDMP. I am enclosing a copy of the Federal Register notice announcing the workshop along with a draft agenda. Please note that presentations at the meeting are limited to invited speakers, but that full public comment and participation in question-and-answer sessions and in small group workshops is encouraged. If you would like NRC to discuss any specific issues related to the SDMP during the workshop, please contact Harvey Spiro at 301 504-2559.

The Potomac Inn is located just west of Interstate Route 270 at the Shady Grove Road exit at 3 Research Court, Rockville, Maryland, 20850, telephone (301) 840-0200. If you plan to stay at the hotel overnight, you should contact them directly to arrange accommodations. Be sure to mention that you are attending the NRC's SDMP workshop.

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Multiple Addressees

- 2 -

October 19, 1992

We recognize that the lead time for the workshop is somewhat limited, but we wanted to convene the workshop as soon as possible to encourage licensees and other responsible parties to exchange information and to identify any significant issues that you are concerned about. If you have any questions or comments, please contact me at 301 504-2560 or Mr. Spiro at 301 504-2559.

Sincerely,

/s/

John H. Austin, Chief
Decommissioning and Regulatory
Issues Branch
Division of Low-Level Waste Management
and Decommissioning, NMSS

Enclosures: As stated

*re-typed
1 ltr plus
rest of all
addresses*

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SUBJECT ABSTRACT: ANNOUNCEMENT FOR SDMP WORKSHOP, NOVEMBER 19, 1992*

OFC	LLDR <i>W</i>	LLDR <i>W</i>	LLDR <i>W</i>			
NAME	HSpiro	MWeber	JAustin			
DATE	10/19/92	10/19/92	10/19/92			

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*Identical letters sent to attached addressee list.