

1994 MAY 12 PM 1:40

**MINUTES OF THE
ENVIRONMENTAL MANAGEMENT ADVISORY BOARD
PUBLIC MEETING**

**March 14 and 15, 1994
St. Louis, Missouri**

**MINUTES OF THE
ENVIRONMENTAL MANAGEMENT ADVISORY BOARD
PUBLIC MEETING**

**March 14 and 15, 1994
Ramada Henry VIII Hotel
St. Louis, Missouri**

Board Members Present:

Mr. Alvin L. Alm, Co-Chair
Mr. Douglas M. Costle, Co-Chair
Dr. Lynn R. Anspaugh
Mr. Kenneth W. Ayers
Mr. Richard L. Bangart
Mr. Dennis A. Bechtel
Mr. Jeff Breckel
Mr. Gerald Christean
Mr. Tim Connor
Ms. Vicky Dastillung
Dr. Fred A. Donath
Ms. Shira A. Flax
Dr. William R. Freudenburg
Mr. Ken Korkia
Mr. Ron Kucera
Mr. Tad McCall, Jr.
Dr. Glenn Paulson
Mr. Ron Ross
Mr. Ben Smith
Dr. Jay Sorenson
Mr. Thomas A. Winston

Board Members Not Present:

Mr. Russell Jim
Mr. Jim Lapping

Department of Energy Participants

Mr. Tom Grumbly, Assistant Secretary for Environmental Management
Mr. Glen Sjoblom, Designated Federal Official for the Environmental Management Advisory Board
Mr. James T. Melillo, Executive Secretary for the Environmental Management Advisory Board
Ms. Cynthia Kelly, Director, Office of Public Accountability
Ms. Jill Lytle, Deputy Assistant Secretary, Office of Waste Management
Mr. Randy Scott, Deputy Assistant Secretary, Office of Oversight and Self-Assessment
Mr. Jim Werner, Director, Office of Strategic Planning and Analysis
Mr. Pat Whitfield, Deputy Assistant Secretary, Office of Environment Restoration

commended the Department for productive and improved public involvement, particularly the Public Involvement Strawman.

Mr. Ayers stated that the subcommittee believes the Programmatic Environmental Impact Statement is at a point requiring the advice of the entire board. Mr. Breckel agreed with Mr. Ayers, stating that the original charter of the full board was to advise the Department on the significant policy issues and choices contained in the document, and that the subcommittee might not be able to represent the full board on these issues and choices. Mr. Christean seconded Mr. Breckel's view, as did Ms. Flax, who added that full board meetings and special sessions are not necessarily mandatory. Mr. Smith concurred by stating that there is a need for the differing perspectives that the full board members can bring to the review process to ensure fairness and balance.

Mr. McCall indicated he still has major concerns since the board is already involved in this work. He stated his willingness to sign-off on the subcommittee work, and agreed to the subcommittee's proposal for full board participation and review.

Mr. Costle noted the advisory and representative purpose of the full board and the need to assure themselves that the public will get from the Department the full range of options required to make an informed judgment. Mr. Ross agreed with this interpretation and said the second meeting, and perhaps the first as well, will be facilitated to ensure all views are reflected in the document. Mr. Winston concurred and saw the draft to be released in August as an opportunity for intensive involvement that should not be lost. He added that the board can help improve the document, and that a failed document will reflect poorly on the board in the eyes of the public. Mr. Sjoblom stated that the Department is looking for the kind of critical review the board has provided in the past, not an endorsement.

Mr. Smith noted that he asked for a listing of work products that will be available for review at future meetings. These materials will be available two weeks before the meeting and mailed to board members by the end of April for a May review.

Site-Specific Advisory Boards Subcommittee Report

Ms. Flax moved that the subcommittee's name be changed to the Public Involvement Subcommittee. Next, she invited members of the full board to join the subcommittee if they so desired. She then proposed that the subcommittee direct its work to address all issues related to public involvement in each area of the full board's tasks, with special attention on the Programmatic Environmental Impact Statement and other important projects. Ms. Flax anticipated that the subcommittee could eventually be superseded by the national federal advisory committee for site-specific advisory boards. The motion was passed without objection.

Barriers to Advanced Technology Use Subcommittee Report

Mr. McCall indicated that this subcommittee was created after a technology development presentation by Mr. Gary Voelker, Associate Deputy Assistant Secretary of the Office of Technology Development, at the last board meeting revealed the need for a board study of related issues. He stated that the subcommittee's mission is to identify barriers to the use of advanced technology and to propose possible solutions to those barriers, and the informally present a package of recommendations to Tom Grumbly and the Administration. Mr. McCall opined that technology development can rebuild American employment, communities, and economic strength and the subcommittee will tap expertise from other sectors, including regulators and venture capitalists. The package to be developed, he

continued, will include a model and some economic considerations. The subcommittee acknowledged that a national solution requires regional and local support and Mr. McCall outlined a model process involving coordination between teams at sites in the States. He then discussed private involvement in technology development, including the formation of teams of companies to satisfy requests for proposals. He noted that private companies have expressed interest in a similar concept at the Savannah River Vendors Forum and have many innovative proposals.

Board Discussion

Mr. Alm approved of innovative approaches to increased private involvement, but noted problems in moving to implementation, such as issues of permitting and risk liability. He suggested the NACEPT committee at the Environmental Protection Agency might have useful information of this topic of mutual interest and that the utilities might also be interested.

Mr. Costle noted the difficulties that the environmental industry has experienced in raising capital and suggested that changes in the tax code might encourage investment in the area. Responding to a question from Mr. Smith on the relation of this to the unavailability of technology, Mr. Costle stated that these companies are having a hard time selling their products.

Mr. Sorenson indicated concern that a letter from the Director of the Office of Technology Integration and Environmental Education Development lacked reference to the protection of environmental values driving Departmental efforts. He urged environmental protection be explicitly considered in technology development decisions. Mr. Christean said he thought cleanup was the reason for new technology. Dr. Sorenson cautioned against just achieving remediation, rather than environmental protection, during the cleanup. Mr. McCall thanked the full board for its useful input.

Cost and Effectiveness of Environmental Restoration Technologies Subcommittee Report

Dr. Paulson invited members to join the subcommittee, which was formed at the last meeting, and noted the membership, including Mr. Christean, Mr. Ross, and Mr. Ayers. The subcommittee circulated a draft a scope of work statement to guide analytical efforts and discussed possible sources of information and analyses. Additionally, Mr. Pat Whitfield suggested that some of the analytical work has been already accomplished by the Department. The subcommittee also discussed inviting practicing engineers and economists to serve as advisors to the subcommittee; plans for a near-term meetings, and future work.

Board Discussion

Dr. Sorenson asked about the primacy of cost considerations and noted the existence of robust data sets on Superfund technology costs, but not effectiveness. Mr. Breckel responded that cost was meant in a generic sense, or as the cost to the Department, which is affected by administrative and managerial considerations. The concern of the subcommittee is not with technology, he stated, but with the mechanisms needed to apply technology. Dr. Paulson noted that the subcommittee did not include ancillary costs and asked if the investigation should be broadened to include the cost of nonremediation. Mr. Whitfield stated that most of the available data does not pertain to costs to the Department. Dr. Paulson noted that Environmental Protection Agency removal and interim remediation actions are likely to be a large part of the data set and expressed an interest in data on private sector cleanups not available in the public domain.

Health and Safety Subcommittee Report

Mr. Kucera stated that Mr. James Lapping is formalizing an interim report from the subcommittee's recommendations related to two Department orders on worker health and safety, and is studying the issue of Departmental migration to Occupational Safety and Health Administration regulation. Mr. Christean is addressing the issue of worker safety in facilities off Department sites and not under Department protocols. Dr. Paulson recommended that the subcommittee review the Defense Nuclear Facilities Safety Board publications, other relevant Department and Nuclear Regulatory Commission orders. The subcommittee intends to issue a concise draft report by May 4, obtain comments, and then report to the Board by June.

Mr. Sjoblom stated he would send copies of the recently completed Health and Safety Plan Guidance for Environmental Restoration to the board.

Mr. Costle noted that 24 members of the public wanted to address the board and called a short recess at 7:15 pm.

Public Comment Session

Mr. Costle called the meeting to order at 7:35 pm. He thanked the citizen representatives who accompanied the board on the site visit, indicated that 28 persons were signed up to address the board, and restated his desire for a 5-minute time limit on speakers, but would not penalize time taken to answer board questions. He also stated that the board will accept written materials for the record, either now or through the mail.

David Shorr, Director Missouri Department of Natural Resources

Mr. Shorr began by stating that the Missouri Department of Natural Resources is responsible for implementing the various environmental laws in Missouri. He told the board that the sites in the area are contaminated with the first production waste of the atomic age and are the most uncontrolled waste from weapons production. He stated that the citizens and Department of Natural Resources have been working constructively with the Department to solve problems at the Weldon Spring site. However, he continued, the successes at Weldon Spring have overshadowed the St. Louis FUSRAP sites. The Department has failed to accept responsibility for cleanup of weapons waste scattered over miles of the urban areas that had no connection to the weapons production activities. Except for the Hazelwood site, institutional controls and physical barriers do not exist and the Department claims to not have legal authority to prevent continued spreading of waste. In fact, he added, in July 1993, the Department announced it was leaving the site and the city of St. Louis has not taken responsibility.

Mr. Shorr stated that the State believes that if practical, the soils should be cleaned up and the property should be placed under clear and legally enforceable institutional controls which the Department is responsible to enforce. It should not be the responsibility of the land owners to cleanup Federal nuclear weapons waste. He urged the board to recommend that the Department assume full responsibility for the wastes.

**David Hayes, Field Coordinator
Laborers Employment Cooperative and Education Trust**

Mr. Hayes stated that his organization, and the parent Laborers' International Union of North America, presented testimony at previous board meetings. He stressed the importance of training to ensure an experienced and competent worker force. His organization does not see a suitable health, safety and medical surveillance program in place, guidance documentation, clear accountability in construction health and safety, Occupational Safety and Health Administration-type enforcement activity, nor major program review initiatives. He urged the board to remind the Department that it must promptly act to address, rather than study, these issues. He endorsed a recent Office of Environment, Safety, and Health initiative to establish a basis for an environmental restoration safety and health program execution. In response to a request from Dr. Freudenburg, Mr. Hayes committed to send information to the board regarding the February 22, 1994, request for proposals to carry out Assistant Secretary Grumbly's risk/threat initiative.

**Loraine Batton, Resident
Berkeley, Missouri**

Ms. Batton spoke as a long-time resident of Berkeley in opposition to the construction of a hot dirt bunker and the permanent storage of radioactive waste at the St. Louis Airport site. She asked that the residents be given back the land, which was previously used as a community ball field and festival ground.

**Lee Brotherton, Director
Transportation and Environmental Policy, St. Louis County**

Speaking on behalf of the county executive, Mr. Brotherton stated that the community believes it is inappropriate to permanently store 9000 cubic yards of radioactive waste in the middle of a highly populated area. The community has done what was asked of it in producing weapons, and should not be asked to accept waste that is the responsibility of the Federal government. He stated that in a referendum, 80% of the voters expressed opposition to this policy and urged that the policy be abandoned.

**Robert Heuremann, City Councilman
Hazelwood, Missouri**

Mr. Heuremann stated that the Hazelwood City Council opposes the transportation of radioactive waste through, or its interim location in, Hazelwood. In a 1990 proposition, 85% of the voters urged removal of the waste to a remote area, he reported. The Council rejected requests from the Department and the Missouri Department of Natural Resources to authorize limited cleanups of the Hazelwood Interim Storage Site or moving more waste to the site. The Council also opposed making St. Louis Airport site as a permanent storage site.

**Roger Pryor
Missouri Coalition for the Environment**

Mr. Pryor, who had accompanied the board on the site tour, submitted written materials, including a collection of citizen comments on the Programmatic Environmental Impact Statement. He stated that he sees a consistently high level of public opposition to and frustration with the FUSRAP properties or

sites in the St. Louis area and for the lack of Federal responsibility or response. He called on the Federal government to seek better solutions to the problem, to bring order to the chaos in waste management, to stop producing nuclear bombs and wastes, and to remove the waste to a place of greater geological integrity. Mr. Pryor stated his belief that dollars are driving the issue, which is the wrong criteria since cleanup is a necessary expenditure. Mr. Smith commented that the Atomic Energy Act poses barriers to Federal-State partnerships on the issue and urged the community to lobby Congress to address the issue. Mr. Pryor thanked Mr. Smith for his suggestion and noted that the Superfund Amendments and Reauthorization Act and the Comprehensive Environmental Response, Compensation, and Liability Act may also limit partnerships.

**Rebecca Wright
Missouri Coalition for the Environment**

Ms. Wright drew an analogy between the vanished ancient civilization of the 12th century preserved in the nearby Kohokia Mounds to the failure of modern society to cope with environmental problems. She expressed opposition to the storage of radioactive waste at the St. Louis Airport site and in the St. Louis area. She cited negative impacts on the community, the economy and transportation, and referred to the possibility of accidents and natural disasters at the site that could cause a release of materials. She urged that the waste be hauled out of town and removed to the Calloway County nuclear power plant site.

**Bill Miller, Mayor
Berkeley, Missouri**

Mr. Miller stated that the law mandating cleanup of the St. Louis Airport site deals only with 25 acres, and that the Department may have expanded the site beyond Congressional intent. He also stressed the rights of local citizens to the land in their communities, particularly the area of the proposed bunker zoned by the city as a park. Finally, he stated his belief that the site is a poor location since it is on a flood plain, is a glide path, and is on a densely populated area. He asked for immediate action to remove the waste from the site and for the Department to return to the smaller Congressional mandate on the site.

Ms. Flax asked when the ball field was closed and was informed by Ms. Batton that it was closed in 1987. Ms. Flax then remarked that the Public Health Service should look at the health of children in the Weldon Spring area. In response to a question from Mr. Christean, Mr. Miller said that the city does not see a misuse of the property at present, but was willing to go to court if misuse exists.

**Joy Guze, Resident
St. Louis, Missouri**

Ms. Guze spoke in opposition to the storage of nuclear waste in the area, nuclear weapons, and nuclear generation of power. She indicated that she has been concerned about atomic testing and radioactive waste since the 1950s when she became involved in the strontium 90 baby tooth survey. She stated her belief that the Department and its predecessors hid information from the public about tests, wastes, and its facilities and actions. She applauded the Secretary's move to openness and suggested that spent fuel be carried into space, that the use of nuclear power be ended, and that scientists in the weapons complex research and develop alternative forms of energy. Ms. Guze submitted a fact sheet for the record on childhood leukemia rates in St. Charles County.

**Lewis Green, Resident
St. Louis, Missouri**

Mr. Green, a attorney in St. Louis, urged the board to bring common sense to the problem of disposal of FUSRAP waste. He asked that the waste be moved to Calloway County, a less populated and contaminated area and added that transport of the waste would involve little additional risk to human health. He commented that a second problem concerns the terrain of Weldon Spring site, which is limestone with percolating underground streams, unsuitable for the storage or containment of waste. He urged the board to advise the Department not to store waste at the site. Mr. McCall asked for more information on the Calloway site from Mr. Green and from the board staff.

**Kay Drey
Missouri Coalition for the Environment**

Ms. Drey gave a brief history of the Mallinckrodt site. She urged the board to advise the President, Congress, and the Department to stop generating nuclear waste because there is no safe solution to the waste problem. Mr. Ken Korkia stated that he would wear the button distributed by Ms. Drey in solidarity, as he grew up near a similar site. Ms. Flax inquired about a fact sheet on the incidence of childhood leukemia. Dr. Blumenthal from the audience replied that he did not know specifics on clusters of cancer cases, but thought that authorities should be asked to prove to the public that radiation does not cause cancer. Ms. Flax asked if anyone from the school near the Weldon Spring site was present to talk about childhood cases of leukemia. Ms. Gwen Hobbs stated that although she does not have a technical/medical background, she believes that the number of cases is very high number. Mr. John McQueen commented from the audience that he is a representative of the school near Weldon Spring and is not aware of a high incidence of leukemia.

**Meredith Hunter, Resident
St. Louis, Missouri**

Ms. Hunter stated that she was involved in the first epidemiology study in St. Louis under pediatric guidance and found 13 rather than 6 cases of leukemia. She requested an incidence study be conducted on the students of Francis Hall High School and suspected there would be 21 cases. She stated that the Department should analyze risks associated with clean-up to prevent future clusters and should inform parents, students, and alumni of the school of the risks. Ms. Hunter stated that she believes the water is safe, but is concerned about the air. Ms. Hunter provided for the record background documentation of sampling efforts conducted by an independent reviewer indicating that contamination to the Missouri River is nonexistent.

**Kathy Collins, Resident
St. Peters, Missouri**

Ms. Collins stated that she is a 20-year employee at Mallinckrodt Chemical plant, the site of the first uranium processing plant for atomic bombs. She stated her belief that the Department has failed to cleanup this oldest of contaminated sites and urged the Department to inform workers about the exposure levels, to immediately remove radioactive contamination, to monitor airborne and radon contamination, and to remove wastes to the Calloway site.

**Kathy Lewis, Schoolteacher
St. Louis, Missouri**

Ms. Lewis thanked Mr. Ron Kucera for bringing the Board to St. Louis and stated her opposition to the storage of waste at the airport because of the unsuitable geology and proximity to a heavily populated area. She called on the Department to take responsibility for the waste, but not to dictate to citizens that waste must be stored at the airport. She also urged that a fence be placed around the sites and signs be posted indicating contamination. Ms. Lewis also expressed concern that the Weldon Spring site is polluting the region's drinking water supply and stated that the nation must stop generating radioactive waste since a safe means of disposal does not exist. Mr. Bangart asked if anyone has spoken with Union Electric officials about taking the waste and Ms. Lewis responded that she has not personally, but was confident that officials were aware of the proposal. She also noted that Union Electric officials have stated they are not permitted to take the waste. Dr. Freudenburg stated that the citizens of Calloway County should also be consulted on the issue. Mr. Kucera stated that the Calloway site may have similar geologic problems as other area sites.

The board recessed from 9:35 p.m. - 9:50 p.m.

Upon returning from the recess, Mr. Costle indicated that 19 more individuals were on the speaker's list. He again stated the board would accept written statements and urged speakers to limit their remarks to 5 minutes.

**Jay Lewis, Resident
St. Louis, Missouri**

Mr. Lewis spoke against the storage of radioactive waste material in the densely populated area of St. Louis. He advised the Department to relocate all high and low-level waste to the Calloway Nuclear Power Plant site, which he called the single most dangerous site in Missouri. He questioned the Department's credibility and demanded that the Department stop the discharge of Weldon Spring waste into Missouri's drinking water supply. He also criticized plans to store spent nuclear fuel at the Prairie Island Nuclear Power Plant in Minnesota, which he opined threatened the drinking water supply for millions of people.

**Martha Dodson, Resident
Crystal City, Missouri**

Ms. Dodson expressed opposition to the Mallinckrodt facility. She also urged the board to pay attention to a site near Joachim Creek in Jefferson County, Missouri. Mr. Costle asked if the site was affected by floods last spring and she replied it was too far from the Mississippi River to be affected.

**Margaret Hermes, Resident
St. Louis, Missouri**

Ms. Roberta Gutwein spoke on behalf of Ms. Hermes. She began by criticizing the Department's plans to site a bunker at the St. Louis Airport site, stating that Department's findings are biased, unscientific, technically infeasible, geologically inappropriate, arbitrary, and politically expedient. She said that the Department has a history of avoiding responsibility for wastes it does not wish to treat and rejected the Department's claim to a mandate to consider the airport site. She urged that the Department examine the Calloway site, rather than examine and rule out a generic, off-site geological

site based solely on cost. She also stated her opinion that the Department is not looking for solutions for the wastes and is not honestly or openly examining options. Ms. Gutwein agreed to send Dr. Freudenburg information regarding the transfer of the downtown Mallinckrodt site under Department authority.

**Arlene Sandler, Resident
St. Louis, Missouri**

Ms. Sandler asked why a permanent radioactive waste storage facility was being built at the airport site near people and water. She also questioned the geohydrological features of the site are ignored, why alternatives are not investigated and why monitoring equipment has not detected dumping of thorium in the raffinate pits. Ms. Sandler also questioned why water treatment pilot plant was not built at Weldon Spring and criticized Federal remediation efforts for causing public cynicism. She submitted for the record copies of a 1989 *St. Louis Dispatch* series entitled, "Legacy of the Bomb." Mr. McCall, remarked that the Board is comprised of citizens like herself. Mr. Connor agreed that the thorium issue should be addressed and resolved in a timely fashion and committed to submit a letter on the sampling program and to search for technical material.

**Byron Clemons, Resident
St. Louis, Missouri**

Mr. Clemons identified himself as an environmental activist. He expressed disappointment and skepticism with respect to the Federal response and the historically poor treatment of FUSRAP sites. He saw the Department's current plans as an abandonment of the problem. He cited numerous human costs a long history of Federal incompetence, irresponsibility, and poor implementation on scientific and technical bases. He criticized storage at the airport site and other sites as imprudent and unreasonable and urged moving waste to another Department-licensed site. He rejected concerns about cost and stated that the Federal government has a moral obligation to move the material out. Finally, Mr. Clemons submitted for the record a *St. Louis Dispatch* article on the clustering of leukemia cases in the community.

**Deborah Wilson, Resident
Berkeley, Missouri**

Ms. Wilson expressed concern that her family has been affected and possibly poisoned by contamination at the local ball field. She expressed concern about possible contamination of water supplies at the Weldon Spring site. Ms. Wilson also stated that based on experience, she does not trust the Department and questioned the Department's ability to properly deal with the mix of toxins being released into the water supply.

**Peter Schmitz, Attorney
St. Louis, Missouri**

Mr. Schmitz indicated that he was part of a citizen advisory group at Weldon Spring five years ago, but that the Department personnel had shown hostility and resistance to the group's participation and suggestions. The Department went through procedures, he stated, but did what they wanted to do regardless of public comment. He also criticized the Missouri Department of Natural Resources for its inability to complete its job at Weldon Spring and for acting as if knew how to perform. Mr. Schmitz stated that his experiences explain his skepticism of Federal efforts at Weldon Spring and added that .

the burden of proof lies with the government, not the citizens. He remarked that the best protection for citizens is a process whereby citizens are empowered to come forward, ask questions, and obtain responses.

**Peggy Meyer, City Councilwoman
Bridgeton, Missouri**

Ms. Meyer expressed her frustration with meetings of advisory bodies without lack of action to address major problems at waste sites such as the West Lake Landfill. She asked that this be the last meeting she attends until problems are addressed. In response to a question from Ms. Flax about the local member of Congress, she responded that her community has sent resolutions to various State and Federal officials, yet no one is listening to their comments and concerns..

**Leonard Sonnenschein, President
MidAmerica Aqua Center**

Mr. Sonnenschein stated that his grandfather lived on the site under consideration for the bunker and claimed it is no longer a healthy place to live. He asked the board to concern itself with the important issue of flooding and with the fact that fish consumed by humans amass heavy metals.

**Dolores Wolff, Resident
St. Louis, Missouri**

Ms. Wolff explained that she has been an anesthesiologist since 1959 and expressed concern for future generations due to the discharge of radioactive waste into the Mississippi drinking water supply, calling it immoral and suicidal. She cautioned that small chronic doses of radiation over a long period of time can be very dangerous and that there is not a safe level of radiation exposure. She then cited studies and experts on the contamination of the human genetic heritage, increased cancer deaths, and future health problems.

**Gwen Hobbs, Resident
St. Peters, Missouri**

Ms. Hobbs stated that she is the mother of a child with leukemia and that she knows of other cases. She then cited concerns voiced by medical professionals about child cancer in the community. Ms. Hobbs stated her opposition to the storage of waste at the Weldon Spring site and asked if the Department could work to detect radioactivity in well water.

**Mark Guy, Resident
St. Louis, Missouri**

Mr. Guy strongly criticized the Department and indicated that he felt it has no credibility based on what it has told the public. He attacked the science and underlying assumptions of the Baseline Risk Assessment of the St. Louis sites published in November 1993. He then criticized FUSRAP publications for claiming that the waste sites do not appear to pose a threat to residents.

Beth Okenfus, Resident
St. Louis, Missouri

Ms. Okenfus related the impact of cancer on her family, the community, and herself. She expressed concern about waste from Weldon Springs is in the local drinking water sources and stated that she would like this to be a model site engaged in open, cooperative problem solving. Ms. Okenfus urged the board to take her message to the Federal government and to consider the benefits of cleaning up the environment to reduce the Nation's health bill.

Ed Mahr
National Health Food Organization

Mr. Mahr claimed that airport waste water runoff onto Latty Avenue, McDonald Boulevard, and Cold Water Creek is a serious problem that cannot be regulated away. He also cautioned that greater contamination problems will arise in 10-15 years as nuclear power plants are decommissioned. He called for pure rather than applied scientists to be on site, as engineers are only spreading the waste. He proposed dumping the waste underground, and cited a book by John Gofman entitled *Radiation and Human Health*.

Seth Carlin, Resident
St. Louis, Missouri

Mr. Carlin objected to the release of contaminants into the drinking supply of the metropolitan area. He stated that the problem is enormous and that the Department's record do not warrant public trust. He called for a satisfactory accounting and rejected dispersal theory as a solution. He urged the board to advise local authorities to immediately cease the policy of release into the water so that the scientific facts can be fully ascertained.

Mr. Costle thanked all the speakers for testifying. The meeting adjourned at 11:19 pm.

March 15, 1994

Public Meeting

Mr. Alm called the meeting to order at 8:10 a.m. and noted changes in the schedule. He welcomed Dr. Barbara Bass to the table and explained that Dr. Bass has worked in the area of risk assessment with the Environmental Protection Agency and other outside groups. Mr. Alm then turned the meeting over to Mr. Tom Grumbly.

Tom Grumbly, Assistant Secretary
Office of Environmental Management

Mr. Grumbly welcomed Mr. Timothy Fields and Mr. Barry Breen of the Environmental Protection Agency to the meeting. He stated that the two men will observe this board meeting, and it is expected that they will become involved with the board subsequent to this meeting.

Mr. Grumbly then asked the board members for their comments and perceptions on FUSRAP and problems at the St. Louis sites.

Mr. McCall commented that it is clear that the current program is not working, but it is also not constructive for the city of St. Louis to stand off from the Department. He urged the Department to enter into a partnership with St. Louis and seek a third party for negotiations to receive the waste with a license or fee from St. Louis. The political situation might be intractable, he continued, but the remediation problem is fairly simple.

Mr. Smith asked why the handout materials did not discuss the number of picocuries not controlled for contamination. He perceived a disconnect between stringent controls elsewhere and yet nothing is being done here to prevent materials from becoming airborne.

Mr. Breckel stated that he sees a total breakdown of communications between the community and the Department. He urged personal, face to face talks and agreed with Mr. McCall that the cleanup should be straightforward since there is a technical answer, and noted lack of ownership for the answer.

Ms. Flax urged resolution of the maintenance issue through negotiations with St. Louis. She stated that there should be concrete illustrations of results-oriented, Departmental leadership that include posting of signs and a putting up a fence. She opined that a credible scientist should be brought in to determine why thorium in high concentrations in a solid quarry is not showing up in the water treatment system. She suggested that Mr. Peter Schmitz, who had served on a citizens' advisory committee, be brought into any dialogue.

Dr. Paulson stated that the Weldon Spring site discharge issue is amenable to technical review and/or a mediated approach, with experts from all sides and neutrals digging into monitoring techniques. He added that the actinide chemistry may be correct and thorium is not leaking. He continued that with good will, people can dig into the issue and resolve it quickly and constructively, which would lead to increased credibility for the Department on other issues. Dr. Sorenson stated that he perceives a crisis of confidence in which the public believes the Department is not listening and called for the Department to build on the mechanisms of communications and consensus-building. He urged for communications with members of Congress and other key organizations to resolve the issue. Mr. Connor suggested that Mr. Grumbly make a commitment this week to answer Mr. Dan Shorr's concern about the lack of security, monitoring, and maintenance.

Mr. Winston urged that a specific schedule be set to make decisions in a timely manner. He sensed public despair over the pace of the cleanup. Mr. Donath felt that to develop public confidence and trust, the Department should in the short term hold out hope and work to increase confidence. In the long term, it is important for the public to have trusted representatives involved in the discussion process. Mr. Christean thought that it advantageous that in St. Louis, cleanup technology is available to solve the problems, but the real danger is emotional and the citizens feel they have been mishandled and mistreated. He added that the citizens do not care what the Department knows until they believe the Department cares. Mr. Bechtel noted the importance of land use questions at these sites and urged the Department to enter into a partnership with the community to solve problems and return the land to the residents.

Mr. Grumbly then asked Mr. Shorr, Director of the Missouri Department of Natural Resources, to comment. Mr. Shorr responded that the State of Missouri has been a good partner in the cleanup yet finds it hard to understand the different treatment of Weldon Springs and the other FUSRAP sites. He stated his belief that this is not intentional, but urged that the FUSRAP sites be treated the same as Weldon Springs. He commented that the Department can build community support through new

relationships on FUSRAP and noted that he has a credibility problem if he accepts Department funding. This make is difficult for the State to work with the Department.

Mr. Grumbly then pledged to either not put forward or withdraw the Department's proposed plan. Mr. Grumbly also agreed to discuss with Mr. Shorr, his colleagues and the citizens the constraints facing the Department. Third, Mr. Grumbly asked to hear from Mr. Shorr and the Environmental Protection Agency about the immediate actions that must be taken to stabilize the sites and to resolve whether or not dust is an immediate public health concern. Fourth, Mr. Grumbly stated that he is open to the idea for an independent review group of trusted experts to examine the Department's quarry sampling procedures. Fifth, he stated his desire to break down the problem and added that the public interest may not necessarily be best served by the Department's complete assumption of responsibility. Mr. Grumbly explained that private companies, such as Mallinckrodt, must also be engaged and the Department may have to go back to Congress for more authority to resolve this issue. He stated that the private sector cannot run away from problems they cause, here or elsewhere, and stated that the Department needs to relook at the sites, deal with problems, and work with regulators and citizens to create short and long-term strategies.

Mr. Grumbly asked that the board to assist with identifying the constraints by developing a strategy to expand the funding or to deal with FUSRAP sites in more prioritized fashion. While the Weldon Spring site, he continued, is adequately funded since it is a line item in the budget, the 44 FUSRAP sites must compete for \$54 million every year. This funding comes not from defense but from the civilian side. He added that the FY '95 Presidential budget proposes a 25% increase in this area to \$78 million. Additionally, the budget includes the UMTRA program that will require less funding in the future, thus possibly increasing FUSRAP funding. The St. Louis sites are a victim of their size, as fiscal limits and large sites lead decision makers to defer funding in order to obtain real progress at smaller sites.

Next, Mr. Grumbly called for decisions on new strategies for the program as a whole, with the help of members of Congress. Part of the problem, he stated, concerns the lack of available funding and the Department has tried unsuccessfully to move FUSRAP to the defense side of the budget, which faces fewer constraints. He indicated his willingness to work with members of Congress and local communities to satisfy the needs of the people in concert with available resources. He then proposed a workshop on a strategy for the St. Louis area sites and challenged the board to gather ideas and identify immediate actions that can be taken, including the creation of a panel to look at data.

Mr. Winston felt that the issue of funding for FUSRAP over the long-term was the most important issue. He asked what the board could do to help move FUSRAP to the defense side of the budget to overcome the embarrassing disparity between the programs. Mr. Grumbly responded that this needs to be studied over time and he indicated that the mood of Congress is that the program has too much money and should shrink costs. He felt the program cannot be expanded without intellectual justification and better ideas on implementation. Mr. Grumbly then urged members of the board to help formulate the most appropriate long-run strategy for the program.

Mr. Christean suggested that the Department engage the community to address funding for program. Mr. Grumbly agreed, but stated that the discussion must focus on creative problem-solving strategies. In response to a request from Mr. Ayers, Mr. Grumbly promised to provide the board with an updated list of FUSRAP sites. Mr. Shorr then remarked that the State of Missouri believes the FUSRAP sites are a defense legacy, and does not understand why former ordinance sites were cleaned, but not the FUSRAP sites. Mr. Grumbly noted that the problem is substantial and that since

the defense budget was less, his budget constituted a bigger proportion of funding. He therefore felt that efforts should be concentrated on showing progress.

Dr. Freudenburg remarked that he has seen more action in the last few months than in his previous 15 years as an observer of the Department. He felt that water from Weldon Springs is not a problem, but that leukemia clusters must be looked at seriously. He also expressed surprise that FUSRAP waste was not considered military.

Mr. Grumbly responded that this was part of the legislative process and asked if anything could be done about this or about private organizations unloading their responsibilities on taxpayers. He also encouraged Department staff in the area to continue their good work in trying to resolve problems, particularly on defense sites. He promised Mr. Shorr that he would send a letter to the Missouri commissioner in the coming weeks to ask what immediate actions are needed.

Mr. Grumbly outlined additional issues for discussion for the remainder of the meeting. The first issue concerns how to meet the requirements of Public Law 103-123 to come up with site-specific risk assessments; but more appropriately, how to build the social capacity around the sites to inform citizens and address their concerns about priorities and expenditures. Second, he wished to obtain the board's views and suggestions on the emerging spent nuclear fuel crisis. Third, he stated his desire to discuss the budget for this year and obtain the board's advice on how best to deal with the budget.

Senior Staff Discussion Risk Assessment

Dr. Carol Henry, Director Designate
Office of Integrated Risk Management

Mr. Grumbly introduced Dr. Carol Henry as an outstanding practitioner of risk assessment and the future Director of the Office of Integrated Risk Management. He stated that she will put together a program to deal with Congressional demands and bring the best of science on the topic to the program. She is assisted by Mike Heeb and is working closely with Cindy Kelly to merge risk assessment issues with site-specific advisory board work. Mr. Grumbly also referred to activities by the National Academy of Sciences.

Dr. Henry indicated she believes the core of the problems associated with risk concern management. She stated her willingness to review PL 103-126 and the actions necessary to respond to the requirement. She cited the report, "Building Consensus," issued by the National Academy of Sciences in January, and promised to provide copies to board members. She stated that credible risk assessment

is the key to achieving the goals of the Environmental Management Program and the problem is related to obtaining credible risk assessments, which the program does not have in place.

In response to a question from Mr. Bangart, she agreed that there is a distinction between using human health risk and ecological risk as a criteria for environmental protection. She added that there are not agreed-on guidelines for ecological risk and that existing information on human health risk is not always applied well. Dr. Sorenson noted that harm may not be a principal consideration and Dr. Henry replied that the two are separate, but interrelated, and the critical issue is how to deal with that in risk assessments.

Dr. Sorenson responded to Mr. Grumbly's request for elucidation by stating that regarding risk, the talk is about harm and acceptable levels, and the presumption is protection of human health. Restoration, he continued, may involve ecological systems with biodiversity and soil nutrients. Remediation to human health standards can mean draconian and expensive methods that harm to the environment, while restoration may be cheaper and employ different methods. Most projects are remediation rather than restoration oriented. Mr. Grumbly agreed with Mr. Christean's comment that workers are part of the public and face more risk at some sites.

Dr. Henry continued her presentation by stating that she is trying to work with the Office of Environment, Safety, and Health to conceptualize the problem and define what the risks are on a site by site basis and that there are obstacles to solving the problem. It is important, she added, who conducts the risk assessment. The National Academy of Sciences was asked if a risk-based approach is feasible, desirable, and important. After a three month study, the National Academy of Sciences responded that the current approaches are viewed with skepticism, and lacking adequate public input and as mechanical. They recommended the Keystone approach, with its consensus provisions and fair share process. Risk assessment could help decision makers by providing stakeholders with a mechanism for considering site-wide priorities, and clarify what is known and unknown about waste sites. There are critical issues to overcome, for example, understanding and clearly stating the limitations, making it part of an overall decision making process, and clearly stating assumptions on the future use of land. Dr. Henry stated that barriers to implementation include coordinating the various risk management programs within the Department, fostering common methods and approaches, coordinating methodology, and establishing working relationships with other Federal and State agencies. It is feasible to have a risk-based approach and there should be an iterative process to help define where information is needed. It could change what is being done. Risk assessments can help set priorities, she added, and provide input for worker health and safety and bring in public participation. The National Academy of Sciences made recommendations on factors influencing remediation action decision. There are major obstacles in the credibility of assessments regarding the use of outside institutions. An integrating institution should have such characteristics as neutrality and credibility to provide oversight, be able to conduct scientifically valid and responsive risk assessments, and be subject to independent external review.

Board Discussion

Mr. McCall stated these were refreshing views, but the problem with this model is that the Department produces the information that drives activities. Dr. Henry responded that the public must be involved at the onset and she favored issuing draft reports at the start of the process, providing a record on public input, and providing explanations and answers. She expressed concern regarding the level of funding available and Mr. Costle stated that the board, with its various representatives, could help to illuminate problems. McCall responded that he looked forward to participating in addressing this issue.

Dr. Henry asked if sites need personnel on site to interact with Ms. Kelly as she tries to establish the site-specific advisory boards, as some could feel overwhelmed by the amount of materials from the Department. Mr. Alm indicated that board members and the States have done much risk assessment, but there are not many examples of blending it and public participation. He called on Ms. Kelly for her comments.

Ms. Kelly felt it was critical to determine ways to integrate the two processes at the sites, that is, what decisions to make, and when to bring in stakeholders on these issues. The Department has the burden

of clearly explaining this to the site-specific advisory boards, many of which do not want to be swept up in the process. The public must help define the more risk-based approach and she anticipates that the Subcommittee on Public Participation would have much to contribute.

In response to a question from Mr. Alm, Dr. Barbara Bass stated that she had seen few successful instances of effective public involvement on this issue and added that even citizens with doctorates are not heard.. She commented that citizens are capable participants in the process and the testimony from the public last night revealed their awareness, willingness and capability to participate. Often, self-educated citizens know more than officials or the experts and she added that she is encouraged by the Department's willingness to increase citizen involvement.

Dr. Sorenson disagreed with some of the comments and said he believes this is a management issue, not a technical approach. He added that it is also an equity issue, a social bargain on the level of protection and risk of health and citizens must feel their equity needs are met. Without public support, he continued, the public perceives coercion. Additionally, there is a desire to inject other values into the process. He expressed fear that risk assessment is used by decision makers to justify eased standards and stated his reservations stem from the equity problem.

Dr. Henry agreed that it is vital the public, not the Department, see a social bargain as acceptable, and that the public must define and understand what is acceptable. She added that scientifically valid information is available to be used, but was not aware of Federal programs where public participation has worked. She also stated that lessons must be taken from State and local efforts.

Mr. Breckel asked how to establish effective dialogue with the public on this issue, which must be driven by public values. He stated that the Department must involve the public early in the process and must be responsive and accountable and explain why it is aggressively pursuing risk assessment. This must be done before there is any focus on methodology. Dr. Henry replied that there are already a lot of efforts and documents out there, as well as technical problems, but the Department faces the Congressionally-mandated 1995 deadline. She asked for views of qualitative versus quantitative approaches.

Dr. Paulson agreed that there is a dearth of effective processes at any level linking a technically credible risk assessment process with an effective public iteration process and that fusion would plow new ground. Second, he noted he was a member of the National Academy of Sciences and was involved in the effort. He noted that technical efforts have been done in fits and starts, rather than in a comprehensive fashion, with glaring omissions and a pattern of low technical attention to zones with a low impact of releases to the public. He hypothesized that technical efforts within buildings have been short shrift.

Dr. Freudenburg indicated that he was an expert on the subject and stated that is a serious problem with blind spots exists and noted questions of facts and values. One question is to be addressed, he stated, is, how safe is it? Dr. Henry disagreed, calling this a value judgment. Dr. Freudenburg went on to state that risk assessment is often pushed hardest in areas that do not make sense and it is best used where a technology is available, the problem is well-known, and those who making decisions are affected by the problem. Risk assessment, however, is often pushed hardest where technology is not available, the risk is not well known, and those involved are not affected. He advised that locals are good sources of data on empirical regularities and that risk assessment often overlooks institutional questions, such as the atrophy of institutional vigilance over time. He added that uncertainty bands are

worth tying into the Programmatic Environmental Impact Statement process more closely and that comparing different approaches is valuable.

Ms. Flax moved to set up a task force on risk and asked if Dr. Henry has looked at cumulative risk or current risks. Dr. Henry replied that there is not good information on cumulative risk and her office can only look at the issue and report to Congress on differential exposures, etc. Such issues have not been addressed in the past. Ms. Flax stated that the public seems more interested in cumulative risk and also raised the issue of public health. She then stated her belief that the public will ask why the Department has attributed so much importance to risk assessment, since it thought regulators are too easy on the Department already, and will be skeptical that the intent is to reexamine cleanup agreements.

Dr. Henry emphasized her responsibility for the management of risk assessment and called for help and advice from their various constituencies to change things. She stated that an old list of 35 common assumptions of risk assessment was still in use. She stated that she will try to bring in expertise, but at the base of the problem is management.

Mr. Alm asked for a vote on the sense of the board to further pursue risk assessment issues, which passed without objection. Dr. Sorenson volunteered to assist.

Mr. Grumbly stated that this is a long-term exercise in changing the Department's approach to risk and will create a common language for the public, the scientific community, bureaucrats, and regulators to talk intelligently about risk efforts. While this is not strictly scientific in approach, he wants the best science brought to it since it is a tool in decision making.

Ms. Dastillung stated that the public will ask why a risk assessment is being conducted, why it is valid, not just because Congress said to do so. Second, she added that the public fears that if risk priorities are compared among the sites, Congress will want sites prioritized, which will pit the sites against each other. Risks are already discussed, she commented, and compared at certain sites and a new risk assessment initiative will slow down the existing process and change priorities. Finally, she stated that the Department should go into each site and find out from stakeholders the history of the sites and ask why various individuals and institutions are perceived as being in the Department's pocket or having a poor track record, and why the public will not accept their work.

Mr. Connor stated his belief that the public thinks the Department serves two masters and that risk assessment is a tool for stakeholders to look at sites, yet Congress wants to revisit commitments and reduce resources. Hence, the public is concerned that this tool will be used to renege on perceived commitments. He noted that a speaker related the loss to the community caused by the airport site, while risk assessment may show little risk to the site. He felt the Department cannot not capture public values in risk assessment. Dr. Henry replied that risk assessment is a process of data gathering and will tell what is out there, but is not always quantifiable. She believed it could assist with a decision on the use of land.

Mr. Grumbly noted this raises other issues, such as environmental justice. Risk assessment by itself cannot incorporate other values into the equation, and will not be the only set of data used to set priorities. It provides useful information. The cleanup is a generation-plus process, and will change course from time to time. He urged that risk assessment be used in an effort to systematically consider data on decision making on the program.

Mr. Connor stated that risk assessment is not always the best forum to bring in socioeconomic and other values. Mr. Grumbly disagreed, stating that it is a way to clarify why these values might take the program in a different direction. Mr. Connor said that if the limits of risk assessment were understood and accepted, he had agreed, but expressed fear that risk assessment could be misleading, cause complications and escalate problems.

Dr. Anspaugh felt more attention should be paid to risk assessment and if this had been the case, the FUSRAP sites in St. Louis would be at the top of the list. He also felt that the public did not want draft reports, but wants access to input data and pathways and wants to participate in the risk assessment process. He added that the public wants to understand the process and the results. Dr. Henry agreed that the public must have access to documents and also must be able to impact the decision making process.

Mr. Bangart asked about integration of efforts within the Department and noted there is a lack of knowledge about ecological impacts. Dr. Henry replied that a Department-wide task force has been set up to integrate efforts.

Mr. Ross urged that more stakeholders and communications people be involved in the risk assessment process and looked forward to watching the Department work the site-specific advisory boards and the public. He also opined that Congress views risk assessment is a budget-cutting tool. Mr. Grumbly responded that if risk assessment is conducted correctly, Congress will give more money since this will prove the system was working.

Mr. Donath commented that the public may fear risk assessment because it does not understand its use. He urged the Department to explain the processes and conceptual models and to consider all pathways.

Mr. Smith observed that the regulatory system in place is the risk management box and that the Department will succeed if it explains that it is not in competition with the regulators and not setting up a new effort, but attempting to work with managers in the field. Mr. Grumbly agreed that the Department needs to make this kind of partnership work.

**Senior Staff Discussion
Spent Nuclear Fuel Management**

**Jill Lytle, Deputy Assistant Secretary
Office of Waste Management**

Mr. Alm introduced the Deputy Assistant Secretary for Waste Management, Jill Lytle. He noted that an immediate risk to the system is concerns spent nuclear fuel.

Ms. Lytle began by stating that in the past, spent fuel has been managed through reprocessing and short-term wet storage. Due to a 1992 decision to phase out reprocessing, she reported that the amount of waste for storage has increased. She reported that the Department issued a phase one action plan to identify vulnerabilities and to understand safety issues at the storage sites and recommended that the board look into the future to address the issue of the increased storage for spent fuel. She discussed the amounts and locations of the spent nuclear fuel and reported that over 80% of the waste is at located at Hanford and the remaining spent nuclear fuel sites are Savannah River and the Idaho National Engineering Laboratory. She briefed the board on what may occur in the program over the

next ten years with regard to production, commercial, government research, naval, and foreign fuel and commented that there is approximately 2618 to 2667 metric tons of uranium in the spent fuel.

Mr. Christean asked if the decision to take back foreign fuel has already been made. Ms. Lytle responded the Department believes it must be taken back, but the final decision has not been made. She stated that the program should support the goal of non-proliferation, but could not say for certain that the foreign fuel will be taken back. In response to a question about the ratio of foreign research reactor to domestic research reactor fuel from Ben Smith, she replied that the ratio is 3:2, if the foreign fuel is accepted.

Mr. Grumbly noted that the Department is under court order, allowing the Department to send only a limited number of shipments of spent nuclear fuel to the Idaho National Engineering Lab for the refueling of the Navy ships. A condition of the agreement is that sites must be evaluated and the Department recently announced that it would look at sites in Nevada and Tennessee. Mr. Smith asked about relationship of foreign fuel reactor issues to this issue to the State of Tennessee. Mr. Grumbly replied that they are interwoven but not tied.

Ms. Lytle then gave a history of foreign reactor spent nuclear fuel and indicated that the United States would like Europeans to reduce their holdings of highly enriched uranium and to use low enriched uranium. The quid pro quo is that the United States must take back spent fuel containing low enriched uranium and bomb-grade uranium to prevent the creation of a market for highly enriched uranium. A complete environmental impact statement will be conducted but in the interim, the Department has proposed an environmental assessment to build a bridge to the environmental impact statement.

Mr. Werner indicated that this is a foreign policy issue and that unless the United States acts now, is feeding the problem of proliferation, especially given the great deal of highly enriched uranium in Russia. He continued that the United States needs to take the lead in discouraging the creation of more highly enriched uranium. Dr. Sorenson agreed, but questioned the timing and wondered if it was necessary to bring in fuel from allies of the United States.

Ms. Lytle indicated that there is an issue of credibility on conversion and support for the Nuclear Nonproliferation Treaty. She also stated that only Savannah River has adequate storage to take waste now and that the environmental impact statement will explore future options. She listed reactors considered for urgent relief and noted the list was reduced after a series of visits. With regard to port selection she continued, the Department started with 151 ports meeting 6 criteria, although no one port met all requirements. On February 10th, the Department announced seven sites that will be studied.

Ms. Lytle moved onto the issue of public outreach, indicating that the Department finds it difficult to dialogue with public on this issue due to time constraints. She admitted that the Department has attempted to involve the public in the decision making process over the last six months, but still has not gone far enough. Ms. Lytle asked the board for their input on the spent fuel issue over the long-term and apologized for asking the board to assist with a decision requiring action in such a short period of time.

Mr. Alm called for a recess. The board recessed at 11:20 a.m. and reconvened at 11:50 a.m.

Board Discussion

Dr. Sorenson noted that Sierra Club is planning to file a lawsuit against the Department on the spent fuel issue. Mr. Alm noted that the Spent Nuclear Fuel Environmental Impact Statement will address where the fuel will be stored in the future, while the issue of how it will be stored will be addressed in the National Environmental Policy Act documents tiered from the environmental impact statement.

Dr. Sorenson then referred to the Sierra Club letter to Ms. Lytle from Robert Deegan suggesting that a dedicated ship be chartered and that Sunny Point, North Carolina, be used as a port. He urged the creation of site-specific advisory boards at the port sites and discussed Russian shipments. He believed that a possible compromise to avoid the impending lawsuit, is a transition period to complete negotiations and the use of a dedicated ship. Dr. Sorenson added that it is possible to offset cost complaints, and the Department may go to a different system at the end of the environmental assessment. He reiterated that the Sierra Club is not opposed, but sees problems in meeting environmental assessment and environmental impact statement requirements. Mr. Grumbly responded that the presentation showed the Department has paid attention to these suggestions in crafting its policy, and also believes that colleagues in the States needed to be consulted and supportive.

Dr. Freudenburg expressed a preference for the proposed approach, but stated his belief that the multiple ports of entry chart has little to do with the requirements of the National Defense Authorization Act, which refers to the port with the lowest population -- density is a smarter way to go. He pointed out that Sunny Point lacks experience in receiving spent nuclear fuel.

Dr. Paulson expressed support for taking the foreign fuel back and concern on the question of ports and transportation. He felt the issues were manageable in the near-term and could involve larger amounts than proposed. Mr. Christean believed that public support could be generated if the issue is discussed in terms other than storage and if the fuel can be discussed in terms of public self-interest, power generation, nonproliferation, etc. Mr. Breckel noted the difference between State and national perspectives, is that although States want to help resolve the issue, they focus on sites and immediate threats. He stated his belief that a broader perspective and national dialogue are needed and the dialogue should also include the ultimate disposition of plutonium supplies.

Mr. Grumbly responded that the Board has the next two years to conduct a reasonable analysis of the issue and during this time, the Department will examine the plutonium disposition issue. He thought it could be done by bringing together and examining the Programmatic Environmental Impact Statement, issuing site-specific environmental impact statements, and using them as a vehicle for examining national options on spent nuclear fuel. Mr. Grumbly added that a national approach is the only context for success and that the States must buy into the national vision. Mr. Breckel expressed concern that using the Programmatic Environmental Impact Statement process to frame this issue might be counterproductive to an open dialogue.

Mr. Bangart asked for clarification on the number of 448 fuel elements to be brought in and the factors involved in deciding which fuel to take. Ms. Lytle responded that the issue of commitment to take this fuel was not based on the fuel's purpose at the foreign reactors. Mr. Grumbly pointed out that the fuel originated in the United States and Ms. Lytle added this might impact public willingness to accept the waste. The more problematic issue is the return of partly full casks. Mr. Grumbly stated that the objective is to get the minimum number of elements to bring back and to keep the program viable until the end of the environmental impact statement.

Ms. Lytle discussed the option numbers of spent nuclear fuel elements chart and the issue of reprocessing in England. Mr. Smith asked if the United Kingdom supports United States efforts on removing highly enriched uranium from research reactors. Mr. Werner replied that the Sellafield facility is quasi-private and does not interfere with existing relations. Mr. Grumbly stated that the United States policy is that the United States has many issues with the Europeans, and encourages the cessation of reprocessing, but the State Department will not actively discourage this activity.

Mr. Korkia asked about the possibility of helping build secured dry storage facilities to keep the fuel on foreign soil. Ms. Lytle said the option was explored but there is not sufficient time and that option is long-term and the decision is due now. Many countries in the program say they cannot wait any longer and this results in the erosion of support for a program the United States is trying to protect. In response to Dr. Sorenson's question on the United Kingdom's reprocessing, Mr. Werner noted that the English had been reprocessing for some time and were anxious to secure business.

Dr. Sorenson asked if sentiment in Japan and North Korea for indigenous nuclear weapons played into this issue. Mr. Werner replied that the two countries have adequate supplies and this is not a problem for Japan and Korea. Dr. Paulson wondered if the board should broaden its consideration to plutonium.

Ms. Lytle asked for other reactions to port and route selection and on the more general issue of obtaining State support to accept a burden affecting the entire waste management program. She responded to Mr. Alm's question on the fuel going to the Savannah River Site that this is the only near-term option for these 440 elements. The environmental impact statement will involve new storage options.

Dr. Freudenburg urged that the environmental impact statement state this option is not a precedent for the future and he also pointed to a discrepancy between the 448 casks and 359 casks in the charts. Ms. Lytle replied that 448 denotes the number of full casks and less reprocessing, and the number 359 denotes the shipment of partially full casks and that the last two columns deal with reprocessing. Dr. Freudenburg suggested selecting the 359 figure and added that given the wording of the law, the Department pay attention to the technical difficulties of Sunny Point's inexperience. He stated that this could be a reason to use another port.

Ms. Flax asked how the board might assist on this issue and Ms. Lytle responded that said she has obtained the board's insights on immediate decision and for the long term, would like advice on dealing with the equity issue and public participation. She added that the waste management program is unable to move waste from one site to another and several members expressed a desire to help address these long term issues.

Mr. Ross asked about emergency response as a criteria for a port. Ms. Lytle replied that the Department has looked at emergency response at the port and will look at it with regard to routes. Mr. Ross noted that bigger ports have more resources to deal with emergency response.

Mr. Smith asked if the Department has looked at the temporary use of shipping casks sitting at the Idaho National Engineering Lab and putting the fuel in secure dry storage. Ms. Lytle responded that the Department has looked at the ability of reactors to get dry storage casks and temporary cask use, but that the regulatory system does not support this option. She added that shipping casks can be used only for 60 days and the Europeans have asked the same question.

Dr. Sorenson urged meetings with site-specific advisory boards at the designated sites be facilitated and added that the Sierra Club may be willing to agree to a one time compromise at Sunny Point.

Mr. Bechtel asked if ports selected for an environmental assessment would be selected for an environmental impact statement and Ms. Lytle replied that this is not connected. Mr. Bechtel then asked that if equity was important, why was Nevada considered as a potential part of the solution. Ms. Lytle responded that the Department needs to deal with equity issues no matter what the State.

The Board took a break for lunch at 12:35 pm and reconvened at 1:45 pm.

**Senior Staff Discussion
Fiscal Year 1995
Environmental Management Budget Priorities**

**Jim Werner, Director
Office of Strategic Planning and Analysis**

Mr. Werner began by stating that the budget is a policy expression. He presented the FY 1995 budget request and the plans for the funding, then proceeded to a broader discussion on Environmental Management's overall strategy and the six goals for the program. In his view, Congress is not tolerant of the program spending and added that of the FY 1995 budget request for the Office of Environmental Management is \$6.28 billion. He then discussed the allocations within the Environmental Management program, explaining that \$3 billion is for the Office of Waste Management, \$1.8 billion for the Office of Environmental Restoration, \$866 million for the Office of Facility Transfer, \$350 million for the Office of Technology Development, and \$85 million for program direction. Mr. Werner also discussed plans for programmatic accomplishments over the next year.

Mr. Werner stated that the Office of Environmental Management believes the budget is sufficient to meet requirements, provided certain assumptions are met, i.e. compliance with all legal requirements, substantial productivity, legislative relief, cost savings of \$900 million, use of prior year balances, selective modifications in enforceable agreements, using more efficient/effective technologies, etc. He stated that any changes will be approved with regulators and stakeholders

Mr. Werner then highlighted the areas of technology development and facility transfer. He stated that the former could yield cost savings of \$20-30 billion by 2005 and that facility transfer reflects rapid downsizing of the complex and the need to stabilize facilities awaiting final decontamination. Cuts here, he continued, will have clear safety impacts on workers in the near-term. He noted that the Office of Environmental Management is an important player in international safeguards arena. He also stated that the impending "train wreck" of increasing outyear commitments and limited funding compels the program to seek new ways of conducting its business. He then reviewed the new strategies, such as complete site risk evaluations based on future land use planning options. Mr.

Werner concluded by stating that this year's budget is a placeholder and that without this budget, the program will not have negotiating credibility with the States.

Board Discussion

Mr. Alm asked to what extent the board will be involved in the budget process in future. Mr. Werner asked what role the board would like to play and noted that chapter four of the "Keystone Report" outlined a process for advisory body involvement in the budget process. Mr. Bechtel asked how realistic the budget is and Mr. Werner answered that many factors affect its fate in Congress.

Mr. Smith stated that another issue is the Federal Facility Compliance Act, which could cause problems in the next few years and that the Office of Environmental Management should prepare to address this issue. Mr. Werner stated that the question relates to how much and when and that the Programmatic Environmental Impact Statement can help make estimations, as can the baseline environmental management report required by Congress.

Mr. Winston asked about late production shutdowns and expressed concern on decisions to turn key and pass on liability to the Office of Environmental Management, especially troubling when the office is seeking regulatory lenience. Mr. Werner discussed the Office of Defense Programs turnovers and pledged that the Office of Environmental Management will not accept any more facilities without the funding.

Ms. Dastillung asked about an apparent discrepancy regarding the amount of money allocated for Headquarters. After discussion, it was determined there is not a discrepancy, but misleading wording since a figure includes technology development funds.

Mr. Connor opined that events have rendered the purpose of the Programmatic Environmental Impact Statement obsolete and asked its relevance to Department's strategic planning. Mr. Werner rated the impact statement an 8 on a scale of 10 and disagreed that the purpose of the impact statement is irrelevant. He continued that while circumstances have changed and a recast of planning activities is needed over time, he is utilizing analyses of the Programmatic Environmental Impact Statement.

Mr. Christean, Mr. Werner, and Ms. Flax discussed possible bargaining techniques with the Office of Management and Budget. After a period of discussion, it was stated that the Federal budget process does not allow for a great deal of negotiation since the Office of Management and Budget sets a target that the Department must meet.

Mr. Korkia asked about the relationship between the regulatory framework and the agreement renegotiation process with the States. Mr. Werner replied that he does not have advice on Rocky Flats to the State, but stated that the negotiation should start with fundamental high-level principles and trust. He added that opportunities exist for renegotiation. He also stated that the Department is on the record for supporting elimination of self-regulation and for coming into compliance with the Occupational Safety and Health Administration regulations and referred to Congressman DeFazio's amendment to the Clean Water Act and the testimony of Charlie Curtis before the Subcommittee on Energy and Mineral Resources of the House Committee on Natural Resources. The board was provided copies of these materials in their briefing books.

Mr. Kucera asked about a list of programs targeted for savings, such as the Waste Isolation Pilot Plant. Mr. Werner replied that the Office of Environmental Management does not have such a list and added that he has not attempted to put together such a list. He added that there will be not be an inter-site risk assessments or budget cuts and that other strategies exist should the program not obtain the requested funding.

Senior Staff Discussion
Project Performance Study Update & Stand Down Results

Randy Scott, Deputy Assistant Secretary
Office of Oversight and Self-Assessment

Mr. Scott indicated that the project performance study will help, but not fix, the budget "train wreck" by ensuring that the Department gets more for its money. He explained that it is one of Mr. Grumbly's goals to reduce project management costs and the study shows that the program's reality is worse than its perception in terms of performance. Mr. Scott added that the study also gives a benchmark of performance and the summarized project outcome measures. Mr. Scott stated that the management cost comparisons are an unpleasant surprise and that A&E firms and M&O contractors on the same site are a big target for savings.

Mr. Scott then discussed the expense of regulatory impacts late in the project cycle. The Office of Environmental Management has the most impact in construction and the least in the design and assessment phase. He continued that the basic recommendations from the study is to overhaul the project definition process, reform the project management control approach, and change the contracting strategy for projects. Mr. Scott suspected that some costs came from the Office of Defense Programs personnel moving to Environmental Management projects.

Mr Scott moved to a discussion of the standdown held in late January. He stated that the results paralleled the project performance study and that the standdown was good for team building, healthy venting of frustrations, and identifying barriers. He added that roles and responsibilities are still unclear and will be addressed in the coming weeks. Mr. Scott stated that the current budget cycle drives premature decisions without needed realistic decision and performance data essential for informed determinations. He also stated that there is insufficient coordination in the Department causing overlapping and conflicting results and that technical and managerial staff are not sufficient nor adequately qualified. Orders and regulations are often outdated and contractor policies are not flexible, he continued.

Mr. Scott referred to the project performance improvement effort which includes Quality Improvement Teams, Action Plans, Crosscutting Headquarters and field teams, Headquarters-specific teams for each deputy assistant secretary, site-specific plans for each operations office, and group evaluations of roles and responsibilities. He stated that Environmental Management initiatives will be coordinated with other Department offices and admitted that the Department is notorious for a "project of the month," but is committed to changing this mode of operation. He stated that the Department will mark its progress each month and asked for feedback from the board, particularly with respect to coming to closure with regulators.

Board Discussion

Mr. Smith stated that coming to closure with regulators relates to the discussion on risk management. He explained that if information can be systematized, confidence will increase, resulting in achieving closure with regulators. Mr. Connor advised working with stakeholders and site-specific advisory boards to resolve the issue. Mr. Breckel commented on the need to involve regulators in the Department's planning process and on the integration of regulatory programs. Ms. Flax asked what is assistance from the board on the budget issue would be useful. Mr. Alm noted that some boards have

budget review subcommittees and the asked why this item was on the agenda. Mr. Sjoblom replied that review of the project performance study was a carry-over item from the December board meeting.

Senior Staff Discussion
Plan to Move the Department of Energy Under Regulation
of the Occupational Safety and Health Administration

Randy Scott, Deputy Assistant Secretary
Office of Oversight and Self-Assessment

Mr. Scott stated that the Occupational Safety and Health Administration will not discuss details on regulating Departmental facilities until a funding mechanism is in place. He hoped that legislation before Congress providing funding from the Department will not be the solution. He stated that board members with questions on this can contact him at (202) 586-6151.

Presentation on Remediation and Restoration
Dr. Jay Sorenson

Dr. Sorenson gave a brief presentation on the differences in approaching environmental cleanup as remediation or as restoration. He noted that different processes are employed, different standards are used, and different costs are incurred. He stated that the question of "How clean is clean?" involves equity issues and this may be misunderstood. Remediation, he continued, is primarily human-based, while restoration is more ecologically oriented and human risks are not the primary consideration. In fact, Mr. Sorenson stated, remediation may be very ecologically destructive and restoration may be a cheaper and more reliable alternative to remediation. Ms. Flax suggested that the Rocky Mountain arsenal case be studied and that this issue be discussed at the next meeting.

Board Business

After a period of board discussion, Mr. Alm indicated that the dates for the next meeting are Monday, May 16 - Wednesday, May 18, 1994. Mr. Sjoblom promised that the chapters of the Programmatic Environmental Impact Statement on environmental restoration will be mailed to board members for review by the end of April. He proposed that the two-day meeting not be connected with a site visit and that the meeting be held in a central location, either in Chicago or Dallas.

The Board then discussed the next meeting, which would also be devoted to a review of the Programmatic Environmental Impact Statement and Mr. Sjoblom suggested July 14-15, 1994 as possible dates. In response to Mr. Smith's request for an August meeting, Mr. Sjoblom replied the draft Programmatic Environmental Impact Statement cannot be issued in August if the meeting is held that month and the Department is attempting to coordinate publication of the impact statement with release of the required Federal Facility Compliance Act Site Treatment Plans. Mr. Smith concurred and the rest of the Board agreed to the proposed dates.

Mr. Alm then asked for recommendations on the spent nuclear fuel issue, including the possibility of establishing a subcommittee on the issue. Dr. Sorenson favored creation of a task force, but questioned whether the focus should be on non-proliferation or on civilian waste. Dr. Paulson suggested that the staff provide a white paper to the board on the issue and a possible role for the board. Mr. Sjoblom noted that board involvement on this issue in the Programmatic Environmental Impact Statement before the issue was reserved for treatment separately in the Spent Nuclear Fuel

Environmental Impact Statement. Mr. Sjoblom stated his belief that it would be difficult for the Board to work with the program, the Office of Environment, Safety, and Health, and the Defense Nuclear Facilities Safety Board on the issue, but it might be helpful for the board to study related programmatic issues covered in the Spent Nuclear Fuel Environmental Impact Statement. Mr. Smith also urged consideration of Greater-than-Class-C waste in any treatment of this issue. Mr. Alm responded that the issue should be on the agenda at the next meeting.

Mr. Christean suggested that the staff poll board members on their availability a week before any scheduled subcommittee meeting.

In response to a question from Mr. Bangart, Mr. Sjoblom stated the next meeting will be facilitated, although it has not been determined if Mr. Harold Kurstedt will again serve as the facilitator.

Dr. Sorenson and the board thanked the staff for their efforts.

Mr. Winston indicated that he will attend a Department training class on public participation.

Mr. McCall commended the citizens of St. Louis, wished departing staff member Peter O'Rourke well and stated that the Technology Development Subcommittee will try to meet in May. He also stated that he is encouraged that Mr. Fields and Mr. Breen participated in the board meeting.

Mr. Kucera stated that the next meeting will not focus on health and safety issues, but urged the Department to continue to focus on these issues and to transfer to regulation of Department facilities to the Occupational Safety and Health Administration.

Ms. Flax opined that the board agenda reflects too much Department input and suggested reconvening the Agenda Subcommittee. Mr. Sjoblom replied that the proposed agenda was sent out by the co-chairs and that board suggestions were solicited. He added that the Department took the lead in setting the agenda, but board members had input on the agenda through the Agenda Subcommittee. Mr. Alm suggested limiting Department briefings to ten minutes to allow more time for board discussion. Mr. Costle responded that he had made an effort to do so, but that Mr. Grumbly asked the Board to consider local issues, which limited available time. He saw flexibility on the agenda, but the board is Mr. Grumbly's advisory committee and noted that the agenda for next two meetings was locked into a discussion of the Programmatic Environmental Impact Statement. Mr. Alm and Mr. Costle agreed with Ms. Flax's suggestion to present Mr. Grumbly with Mr. Bangart's memo on other issues the board would like to address. Mr. McCall stated that holding subcommittee meetings before the full board meeting was helpful, and that this agenda should be used as a model.

Mr. Smith commented that the board still is not addressing the Atomic Energy Act issue, called for a paper on the subject, and requested that after the July meeting, the board investigate possible involvement in the issue and the issue's relation to the cleanup. Mr. Sjoblom referred to Charles Curtis' testimony on declassification and outside regulation, and the legislation before Congressman Miller's subcommittee. He agreed to have a progress report on the subject at the next meeting.

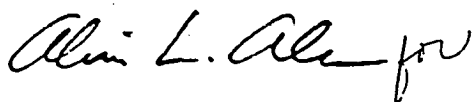
Regarding future agendas, Dr. Freudenburg suggested that presentations be better coordinated and added that risk is a high priority issue. Mr. Bangart commented that Department management effectiveness has not been addressed and suggested that a consolidated list of items to be addressed by the board again be put together.

Dr. Paulson noted for the record that the board received a memo from Meredith Hunter, Project Director of the St. Charles County Community Program.

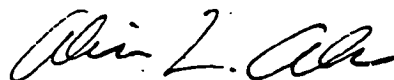
Mr. Christean stated that the board's briefing books were very useful and commented that the board must be sensitive to Mr. Grumbly's needs and schedule. Mr. Costle indicated that he and Mr. Alm intend to meet with Mr. Grumbly to discuss future agendas and meetings and will discuss the need to provide additional staffing support to the board.

Mr. Alm praised the work of the subcommittees, the Department presenters, and the staff.

The meeting adjourned at 4:15 pm.



Douglas M. Costle
Co-chair
Environmental Management Advisory Board



Alvin L. Alm
Co-chair
Environmental Management Advisory Board



Glen L. Sjoblom
Designated Federal Official to the
Environmental Management Advisory Board

SL-346
116352 01

00-1505

Formerly Utilized Sites Remedial Action Program (FUSRAP)

ADMINISTRATIVE RECORD

for the St. Louis Site, Missouri



U.S. Department of Energy

Property
of

ST LOUIS FUSRAP LIBRARY