

***Proceedings of the Seventh Meeting of the
Midwestern High-Level Radioactive Waste Committee***

The Marriott Hotel
South Bend, Indiana

May 3-4, 1993

Monday, May 3: Committee Business Session

Mr. Harold Borchert (Nebraska) convened the business session by welcoming everyone to the meeting. After general introductions, Mr. Borchert turned the floor over to Ms. Lisa Sattler, who provided the committee with an update of activities related to the Midwestern High-Level Radioactive Waste Transportation Project.

Update of Project Activities

CSG/DOE Cooperative Agreement Update. Ms. Sattler reported that the cooperative agreement had been renewed in February for a full year running from January 1 to December 31, 1993. She mentioned that the 5-year agreement covering the transportation project will expire in February 1994. In August, the Midwestern Office plans to begin negotiations with DOE over a 5-year renewal of the project. Ms. Sattler said at that time, she will submit two scopes of work -- one for the 2-month period covering January and February of 1994 and another for the first full year of the new agreement. She asked committee members to let her know if they had any suggestions for possible projects to add to the scope of work. She also mentioned that committee members had received copies of the scope of work for FY 1993 and also the General Management Plan. She passed out additional copies of the General Management Plan for reference.

Ms. Sattler also mentioned that the contract for this year provided sufficient funds to hire another full-time person to staff the committee and work on the project. She noted that Carol Kania had taken the position of Research Assistant in March.

Status of Deliverables. Ms. Sattler reviewed the status of deliverables from the current year's scope of work.

Midwestern High-Level Radioactive Waste Transportation Primer. Ms. Sattler reported that the update of the *Primer* is proceeding on schedule. Part 1 was released in final form in February, and a draft of Part 2 was made available for comment in April. She said the deadline for submitting comments on Part 2 was May 14. A draft version of the third part is in preparation and will be released for comment in late June.

Report on Interim Storage of Spent Nuclear Fuel. Ms. Sattler noted that this project was originally part of the FY 1992 scope of work. She said she had received helpful comments on the draft report from DOE, the U.S. Nuclear Regulatory Commission, the Edison Electric Institute, and several utilities in the Midwest. Copies had been mailed out to all meeting participants, and the general distribution of the report would be completed in May.

Midwestern Emergency Preparedness and Response Agency Report. Ms. Sattler said Ms. Kania was currently working on an update of this report. Ms. Sattler explained that the report serves as a directory of Midwestern state agencies and personnel involved in emergency response and preparedness. Ms. Kania will distribute a draft only to the people at these Midwestern agencies to confirm the information contained in the report (i.e., a draft will not be distributed for general comment). The final report is scheduled for release at the end of July.

Lastly, Ms. Sattler reported that the staff was currently working on a study of public participation in decision-making. She and Ms. Kania have completed the preliminary research and will distribute a report outline for review by committee members. One section of the report will focus on Midwestern experiences, with the spent fuel storage facilities at the Palisades, Prairie Island, and Point Beach nuclear plants serving as examples.

Staff Reports. Ms. Sattler and Mr. Frank Moussa (Kansas) attended the second meeting of the Transportation External Coordination (TEC) Working Group in San Francisco in December. The meeting participants broke into three discussion sessions that ran concurrently. Each discussion group focused on topics and issues raised at the first TEC meeting. The discussion sessions included emergency response and planning; safe, routine transportation and inspection and enforcement; and training and technical assistance. Ms. Sattler sat in on the safe, routine transportation/inspection and enforcement session, while Mr. Moussa covered emergency response and planning.

Ms. Sattler reviewed the main points of her discussion session, including any task items for DOE to complete prior to the next meeting.

- 1) DOE will prepare a glossary of terms, compiled from existing sources.
- 2) DOE will develop a draft definition of "safe, routine transportation" for the TEC group to review and revise.
- 3) The group discussed a DOE-wide shipping campaign guide that the department was preparing. Ms. Sattler said the discussion group decided several issues to be addressed -- e.g., escorts, criteria for bad weather and road conditions -- should all be included in the guide. As a result, the group left these issues for DOE to hammer out. The group asked DOE to bring a draft of the guide to a future TEC meeting for review, however the department maintained that the guide was an "internal document" and that the TEC group would not have final say over the scope or content of the guide. The group will, however, be permitted to review and comment on the draft.
- 4) Ms. Sattler explained that DOE was looking into providing escort vehicles staffed and equipped for emergency response to transportation incidents (the "Winnebago concept"). DOE had agreed to bring to the next TEC meeting an estimate of the cost of conducting a feasibility study and a proposal for the scope of the study.
- 5) Lastly, the group agreed that the TEC Working Group should support a policy of tribal prenotification of shipments.

Ms. Sattler stated that while the meeting had several positive outcomes, she felt a number of problems needed to be worked out. First, she noted that the contractor in charge of preparing and distributing meeting materials seemed to be having trouble fulfilling its duties. She and Mr. Moussa did not receive the final briefing books before leaving for San Francisco. Furthermore, as of the date of the committee meeting, she had not yet received a meeting summary, despite the fact that five months had passed since the TEC meeting and a summary was initially supposed to be released within 30 days of the meeting.

She mentioned that many participants were disappointed that no attempt was made to solicit comments from meeting participants in the form of a meeting evaluation. Ms. Sattler commented that every attempt should be made to obtain input from participants to ensure that future meetings are as productive as possible.

Many meeting participants were also disappointed that issues characterized as "uncertain or vague" in the working book for the meeting were not adequately resolved. Ms. Sattler noted that the failure to thoroughly address these issues may have been due to a lack of time.

Ms. Sattler commented that several participants had inquired as to how the working group's recommendations would be handled by DOE. Apparently the department did not have an answer.

Lastly, most of the working group participants complained that having three concurrent sessions precluded attendance at more than one. Ms. Sattler remarked that it was fortunate Mr. Moussa had been able to attend, because at least the Midwest was represented at two of the discussion sessions. She commented that in the future, the committee may have to send three people to TEC meetings to cover all bases.

Ms. Sattler ended her summary of the TEC meeting by recommending that the committee submit comments on the meeting, specifically on components of a definition of safe, routine transportation, state reaction to the Winnebago approach to escorts, support of tribal prenotification, and on the extent to which the TEC Working Group has input into DOE's shipping campaign guide. She suggested either sending comments once the draft meeting summary is released or sending them to the contractor. Ms. Sattler said she would contact committee members regarding these issues.

Mr. Moussa then provided his overview of the TEC meeting. He noted that in addition to the breakout sessions, the meeting focused on 1) DOE transportation programs and the budget process; 2) review of topics and objectives of the TEC Working Group; 3) DOE transportation regulations and work in coordination with CVSA in standardizing and enhancing inspection procedures; and 4) involvement of DOT in the HMTUSA program.

Mr. Moussa then reviewed the emergency management discussion session. One of the objectives of the group was to prioritize various topics. The group looked at improving state, tribal, and local response capabilities, including coordination with federal and state programs. In several states, such as Kansas, many tribes elect to be their own state emergency response commissions under SARA, mainly because they do not want to be harassed by the states. The group felt states should work to improve relationships and communication with tribes, especially with regard to such items as medical preparedness and training.

The second issue addressed by the group was devising a user-friendly system for emergency response guidance for DOE shipments. The group decided both generic guidance and mode-specific guidance should be provided to responders.

The group then discussed the possibility of developing a nationwide inventory of response capabilities with the states at the forefront. This information could then be used to devise some sort of regional capabilities (including both planning and medical preparedness).

Lastly, the emergency response discussion session addressed mutual aid agreements as a means of enhancing response capabilities. These agreements include inter- and intra-state and state-tribal agreements. The group also looked at integrating private sector capabilities with state and local capabilities, and at providing an incident-data management system for tribal and local emergency planning committees in support of both SARA and DOE missions. In addition, the group felt there should be some clarification of responsibility for emergency response to DOE rail shipments.

Mr. Moussa mentioned several concerns group participants expressed. First, they agreed that the fiscal impact of these proposal needs to be defined. Also, the regulatory impact on states and local/county ordinances should be addressed. Another area of concern was what kind of institutional impact these programs would have -- especially with regard to state-tribal relations and volunteer organizations (the response community in many states is made up of between 60 and 80 percent volunteers for first responders).

Mr. Moussa said the group agreed to rely on existing mechanisms with some supplementation and not reinvent the wheel. One way to do this would be to improve existing source guidance -- particularly the DOE Emergency Response Guidebook -- to focus more on radiological aspects of response, including

isotope-specific guidance to responders. The group also looked at improving DOE's communication system, for instance, making newsletters and news releases accessible to organizations and not just individuals in order to facilitate their dissemination. The group also felt it may be useful for DOE to provide an 800 number for information requests in the manner that EPA provides a hotline under SARA. Finally, the group looked into the matter of providing technical guidance to responders on a 24-hour basis (e.g., a mini-CHEMTREC).

At the end of this session, the group made a vow to review and comment on written reports and to finalize this review with a phone conference. (Mr. Moussa said he was not aware of any efforts to follow up on this last objective). The group also discussed the possibility of focusing on the OSHA training standards to work on the awareness level of responders and to focus on a radiation curriculum (e.g., detection equipment and protective gear), since existing standards were geared more toward operations than awareness. Mr. Moussa said the group also agreed that DOE should provide more realistic risk assessments instead of worst case scenarios or unlikely incidents for responders.

Mr. Moussa summed up his comments on the emergency response discussion session by saying the major "plus" from the discussion was that all participants agreed that building on existing mechanisms and capabilities was important. The major "minus" coming out of the discussion was that many attempts were made to add items to HMTUSA programs. Mr. Moussa worried that HMTUSA dollars may be stretched too thin.

Mr. Moussa then indicated that he had received a copy of the TEC meeting summary a few days before the committee meeting. He reviewed the training goal objectives discussed at the training breakout session.

- 1) Determine appropriate levels of training and equipment.
- 2) Develop performance standards specific to the training itself.
- 3) Coordinate DOE training development and delivery with existing programs at EMI, as well as with states, tribes, and industry (one critique of EMI is that their work was produced in the days when civil radiological defense was the primary concern and therefore is not geared to peace-time occurrences).

The task level suggestions coming out of this session included looking more closely at training on detection devices and the financial resources available to responders.

Ms. Sattler then reported that the previous week she had attended the International High-Level Radioactive Waste Management Conference in Las Vegas. She attended a number of sessions on transportation and also on public awareness and public participation in decision-making. She said the meeting proceedings were available if anyone wanted to see them (she offered to mail out copies of the table of contents to committee members if they would like to request specific papers).

Old Committee Business

Committee membership. Ms. Sattler reported that in January the committee solicited appointments from the governors of North Dakota and Michigan -- who had declined to appoint committee members in the past -- and had received positive responses. She introduced Mr. Thor Strong from Michigan and said Mr. Francis Schwindt from the Department of Health and Consolidated Laboratories in North Dakota was another new member.

Ms. Sattler also noted that the committee had lost two of its legislative members in the November elections and that soon the Midwestern Office would solicit five new legislative appointments from the Chairman of the Midwestern Legislative Conference, Senator Fred Risser of Wisconsin.

Full-scale cask testing. At its last meeting, the committee discussed issuing a formal policy statement on full-scale cask testing. Ms. Sattler commented that the idea had been moved to a back burner to allow some time to see how the new leadership at DOE approached the issue. She noted that there will be a panel discussion of the subject at the next TCG meeting. Ms. Sattler reminded the committee that it has gone on record in the past in support of full-scale cask testing in its comments on DOE's 1991 *Draft Mission Plan Amendment*. She said that if the matter comes up at the TCG meeting, she will present the committee's opinion as in favor of testing based on those comments. She suggested the committee may want to draft a more formal policy statement and offered to do so on the committee's behalf.

Mr. Rick Hand stated that Illinois would be in favor of full-scale testing. Mr. Borchert, Mr. David Crose (Indiana), and Mr. John Kerr (Minnesota) all added that their states would be in favor of full-scale testing. Ms. Sattler agreed to draft a statement and to send it out for committee approval and, eventually, Mr. Borchert's signature.

Mr. Ronald Kucera (Missouri) asked Ms. Sattler how she would present the argument. Ms. Sattler said she would incorporate the comments raised at the last meeting and that she would also review the comments submitted by the WIEB High-Level Waste Committee. She asked Mr. Kucera if he had any suggestions.

He recalled that DOE had issued a letter responding to parties that had requested full-scale testing. Mr. Kucera said not only was the tone of the letter "insulting," but the letter argued that technically there was no need to perform full-scale testing. The requests for testing, however, had been based not on technical concerns but on the issue of public credibility. Mr. Kucera suggested that it would be reasonable from an economic standpoint to invest several million dollars in full-scale testing rather than having to invest an even greater amount of money in program delays and public relations efforts to overcome a growing public sentiment against the movement of radioactive materials.

Ms. Sattler said she would certainly frame the argument in terms of public trust and confidence. She also mentioned that the new secretary of energy and the release of the SEAB Task Force on Radioactive Waste Management report on public trust and confidence may result in a change in the department's position on full-scale testing. She also suggested that the inclusion of a panel presentation at the next TCG meeting may be an indication that DOE is willing to reconsider its stand on the matter.

November 1992 committee meeting. Ms. Sattler noted the interest in education at the last meeting and informed the committee that she had acquired a set of teachers' editions to *Science, Society, and America's Nuclear Waste*, an educational module designed by OCRWM for high-school science and social studies courses. She said the teachers' guides were available at the meeting if anyone was interested in looking at them. She encouraged committee members to order their own copies if they were interested, but she warned that she had some trouble getting a copy because they were supposedly available only to teachers.

Ms. Sattler mentioned that Mr. Borchert would not be able to attend the TCG meeting on June 9 and 10, and asked for a volunteer to accompany her to Washington, DC, for the meeting. Mr. Crose volunteered.

New Committee Business

Handbook of High-Level Radioactive Waste Transportation. Ms. Sattler said she had copies of the *Handbook* if anyone would like one. She said the Midwestern Office was preparing to mail out copies to new Midwestern legislators and that, due to the high degree of turnover in the legislatures, she would be ordering more copies. She offered to order additional copies if committee members would like to distribute some in their states. Mr. Moussa said Kansas would like more and would be able to pay if necessary. Several other members said they would take 25-30 copies and would supply some funds.

Mr. Kucera asked who in the legislatures would be receiving copies. Ms. Sattler said the first mailing had gone to legislators serving on transportation committees. Mr. Kucera requested a copy of the distribution

list for his state so he would know who had received copies. Ms. Sattler agreed to send such a list to each committee member. Mr. Kucera commented that, in his state, the environmental committees have shown the greatest interest. Ms. Sattler said the initial mailing had included the chair, vice chair, and ranking minority member of legislative committees dealing with the environment or energy.

Mr. Kucera also asked how much the books would cost. Ms. Sattler said if a fee is charged, it would be only for the costs of printing the additional books. She estimated a maximum cost of \$1 per book for committee members.

Primer update. Ms. Sattler said the committee had an opportunity for input into the revision of the *Primer*. She explained that Mr. Tim Dantoin, the original author of the *Primer*, had suggested increasing the Midwestern focus of the *Primer* and had suggested adding a section discussing Midwestern experiences with shipments. Ms. Sattler agreed this would be a good idea and asked committee members if they would be interested in writing a brief page or two describing their states' experiences. She mentioned that members could provide the facts and staff would write the specific sections. Mr. Hand volunteered to write a section on Illinois' experiences, and Ms. Sattler said she would seek out other volunteers at a later date. Mr. Crose also volunteered to help out.

Future Projects and Next Meeting. Ms. Sattler mentioned that Mr. Dantoin had also informed her that DOE had developed a workshop on risk communication and that the department would be willing to conduct the workshop at the committee's next meeting. The committee expressed interest in this proposal, and Ms. Sattler agreed to include the workshop on the agenda for the next meeting.

She then brought up the subject of the location for the next meeting and mentioned that several Midwestern sites had been offered. She indicated that for cost purposes, the Midwestern Office usually held one meeting per year in Chicago. She also mentioned that her own preference this year would be for Chicago because she planned to be on maternity leave in the fall and would not be able to attend an out-of-town meeting. The committee members agreed to a Chicago location. The first two weeks of November were suggested as the preferred dates. Ms. Sattler said she would distribute a calendar for committee members to indicate bad dates for them.

Roundtable Discussion of Midwestern State Developments

Mr. Borchert asked committee members to brief the group on recent events taking place in their states.

Minnesota: Mr. Kerr reported that Northern States Power Company (NSP) has asked for permission to install 48 dry cask containers at the Prairie Island nuclear plant. The Minnesota Public Utilities Commission has approved 17 casks, which, if used, would give the plant storage until 2000. NSP estimates 1994 as the tentative date of operation of the storage facility and is hoping to receive NRC licensing in May or June of this year. The Prairie Island Sioux Tribe appealed the Public Service Commission's decision to allow spent-fuel storage at Prairie Island to the Minnesota Court of Appeals. The court has to act no later than June 2.

Mr. Kerr mentioned that the Prairie Island Indian Community has also applied for a Phase II MRS grant. He noted the irony of this decision, as the community is hostile to the idea of interim storage.

Monticello, the other NSP plant, has not applied for relicensing. The process is on indefinite hold until the storage question is more defined. Mr. Kerr had a summary of Minnesota events to pass out to committee members.

South Dakota: Mr. Mike Pochop reported that the Pathfinder plant in Sioux Falls was decommissioned late last summer, but the NRC still has to sign off on it. The plant came on line in 1965 and was operated by Northern States Power for less than two years.

Mr. Pochop also reported that the Lower Brule Sioux Tribe along the Missouri River had applied for a Phase I MRS grant, but no money was ever granted because the application was never completed. The time limit ran out at the first of this year. DOE has not heard anything further about the tribe trying again.

Michigan: Mr. Strong reported that the big issue in high-level waste is dry-cask storage at the Palisades nuclear plant. The NRC issued a certificate of compliance for the storage casks on April 2, which means loading could begin at the plant in 30 days. Mr. Steve Fetter of the Public Service Commission remarked that Consumers Power planned to start dry loading on May 7.

Mr. Strong reminded the committee that his expertise was in low-level waste, and Ms. Sattler said the committee frequently discussed low-level waste issues. Mr. Strong commented that Michigan was still a "go-it-alone" state and that the state still hoped to redirect national policy on low-level radioactive waste disposal.

Indiana: Mr. Crose commented that a state task force had designated routes for all classes of hazardous materials. He said that materials must now be moved around Indianapolis, as one route would have passed the Hoosier Dome, which seats 60,000 people.

Iowa: Mr. Don Flater reported that a shipment of 49,000 Curies of cobalt-60 came through Iowa but no questions were raised because it was not considered waste. In a separate incident, an 18-wheeler brushed another truck and one barrel was damaged but not broken open. By the time the Iowa Department of Health found out about the incident, the shipment was already in Nebraska. Mr. Flater said the State Patrol did not follow procedures. The shipping company was the same company that brought the cobalt-60 through and is based in Saskatchewan, although the shipment came from California. The company did not have to notify the Department of Health of the shipment because the material was not defined as waste.

Mr. Kucera asked if Iowa expects notification of every low-level waste shipment. Mr. Flater said generally they do not, although one exception was the TMI shipments. Mr. Kucera asked if Mr. Flater would have wanted advanced notification of fuel pellets. Mr. Flater said they would not have expected it. The only problem his agency had with the shipment stemmed from reports that the shipper was doing things such as putting chains on the tires due to a storm instead of stopping and waiting for the weather to clear. The driver should have followed DOT's regulations and notified Mr. Flater's agency. Mr. Flater noted that part of the communications breakdown was the state's fault.

Illinois: Mr. Hand reported that things were fairly quiet on the high-level waste front. Three shipments had gone through the state, and the state police were prepared for all of them. Mr. Hand said the state is also trying to increase emergency response training around the 10-mile perimeter surrounding nuclear plants. The focus is to have local responders actually train with equipment rather than just presenting these people with information.

With regard to low-level waste, the Director of the Department of Nuclear Safety had approached Illinois Power and Commonwealth Edison Company about building low-level waste storage facilities on site. The governor had signed a law restricting the public's right to refuse a low-level waste facility. Ms. Sattler added that communities are still allowed to refuse the facility but only if their opposition is based on certain scientific criteria.

Nebraska: Mr. Borchert reported that things have been quiet on the high-level waste front except for a visit from the Nevada "tour" -- the former governor and others from the Nevada Nuclear Waste Project Office, who announced that 80 percent of spent-fuel shipments would go through Omaha and 40 percent through Kansas on their way to a repository sited at Yucca Mountain. Mr. Borchert called these calculations "New Math." He said the *Omaha World Herald* chastised the tour for spreading false information and stirring people up. Mr. Borchert reminded the committee that high-level waste has been shipped through Nebraska for years, and emergency response people do not even turn up for training

because of complacency. He said he did not know what the tour's objective was except to stir things up, and it was nice to see that the newspaper picked this up.

The agencies involved in approving the application for a license to site the low-level waste facility in Boyd County have issued a notice of intent to deny the application. The applicant filed for a contested case hearing, but no decision was made on the initial hearing and it is not clear if there will be one before the contested hearing. Mr. Borchert said the facility as currently laid out does not meet regulatory requirements, as it has wetlands and frequent ponding. There is ground-level water within two-tenths of a foot of the surface. Mr. Borchert said this case will be in litigation for the next several years.

The agencies have been asked to look at on-site storage of low-level waste. They have developed draft guidelines for on- and off-site storage which can be used if there is an application. One utility is already constructing a storage facility on a floodplain. The company has built a dirt mound to an elevation out of the floodplain and are letting it settle before beginning actual construction. There is a question about who has authority to regulate on-site low-level waste storage facilities -- the NRC or Nebraska as an agreement state. The Governor has contacted the NRC and has received two different answers. Apparently, if the facility is in the exclusion area, the NRC has exclusive jurisdiction. If it is outside that area, the state has total jurisdiction. Mr. Borchert said a suggestion had been made to tell the utility to file an application, let them know how much it will cost, and inform them that if they do not submit an application they will not receive a license. He noted, however, that a hiring "chill" in Nebraska has made resources scarce.

Mr. Kucera asked what the Central Interstate Compact's reaction was to being denied access to the Barnwell low-level waste disposal facility. Mr. Borchert said a letter had been sent to generators about the Southeast Compact's actions. The Governor was upset, and asked for re-evaluation of the decision since he does not think Nebraska should be cut off because they are following a scientific regulatory avenue. Mr. Kucera asked if the Southeast Compact would reconsider the decision before July 1. Mr. Borchert said it was possible, but everyone is gearing up for storage.

Wisconsin: Captain Bob Young reported that there was a new law that created regional response teams for hazardous materials accidents, but no funding as of yet. He also said the state patrol was trying to figure out who's who in emergency government, as the departments have a tendency not to talk to each other. A state patrol supervisor went to management school, and his project was to figure out who was doing what and where the authority comes from.

Kansas: Mr. Moussa reported that the Wolf Creek Nuclear Power Plant is planning a pathway exercise for September 1 and will have an NRC liaison for first time. Wolf Creek has wet storage capability for high-level waste until 2005.

In the area of low-level waste, the Southeast Compact is also denying Kansas access to Barnwell, so the state is looking at on-site storage. Mr. Moussa reported that his state was also looking at designation of routes and assessment of all hazardous materials route designations, along with using HMTUSA for regional response teams. Mr. Crose noted that Indiana used all its HMTUSA training funds for response teams.

Mr. Strong asked if Wolf Creek was being considered as a centralized storage area for low-level waste. Mr. Moussa said the matter had been discussed, but he did not know how serious these discussions were.

Missouri: Mr. Kucera said that, in the matter of low-level waste, the state is waiting to see if there will be progress in Ohio. There have been endless schedule slippages, and the earliest date Ohio has set for disposal is now 2001. For Missouri generators and other compact generators, interim storage will be a major issue, along with the loss of research activities. The belief is that research is leaving the U.S. and compact states because of the failure of the federal government to support research in low-level waste disposal. Senators Dodd and Lieberman have asked the General Accounting Office to look into low-level waste issues. The Missouri Department of Natural Resources entered testimony eight years ago, and was accurate in predictions of what would happen in low-level waste. The DNR will indicate their view that

the Low-Level Radioactive Waste Policy Act is flawed, as evidenced by the high costs of waste disposal. These high costs also take money away from other environmental issues such as protection.

As far as high-level waste is concerned, Mr. Kucera reported that the visit of the Yucca Mountain people to Missouri will force a statement on what Missouri thinks about being a major corridor state. He also said the information the tour presented was misleading. He speculated that, with the new secretary of energy, there may be a reassessment of the waste management program and, ultimately, some kind of organized movement towards resolving the issue of high-level waste storage.

Mr. Jim Miernyk from the Western Interstate Energy Board said he will report to Western states the information shared at this meeting. He also complimented Ms. Sattler on the *Report on Interim Storage of Spent Nuclear Fuel*.

The latest white paper released by WIEB is *Transportation Implications of Various NWSA Program Options*. The purpose of the paper was to update the WIEB High Level Waste Committee's strategic plan and schedule, and to examine this schedule in the context of DOE program options for transportation of fuel. The paper considers four scenarios, including the recent decision to look at interim storage of fuel in existing government facilities. The critical path activities schedule lists critical items for developing a transportation system from the Western states' perspective, including the routing process. WIEB estimates that it will take 9 1/2 years to develop a national transportation system, so there could not be a transportation system by 1998 except under limited circumstances (e.g., emergency situations or transshipment). This schedule does not assume time for litigation, environmental impact studies, or other factors.

Any efforts to facilitate the development of the transportation system will need to consider the states' input on full scale cask testing and implementation of section 180(c). Mr. Miernyk said he had copies of the white paper available. He also reported that WIEB submitted comments on the Near Site Transportation Infrastructure (NSTI) report. They were concerned that infrastructure constraints limit the rail shipping option even after upgrades. WIEB encourages more study into heavy-haul shipments. Also, the NSTI study indicated more barge access than had been anticipated, and WIEB encouraged the study of barge issues. WIEB is also working on a cooperative agreement, as their five-year agreement has expired. They are also identifying high hazards on Western transportation corridors. There will be a draft of this report in the fall.

Ms. Beth McClelland from the Southern States Energy Board reported that the Advisory Committee on Radioactive Waste met April 19-20 in Orlando. A committee member from Maryland discussed the Calvert Cliffs dry storage facility, which is expected to be loaded this year. A representative from Virginia Power discussed multi-purpose canisters. A representative of CVSA displayed videos and discussed its work with regard to inspection procedures. The committee also elected a chair and a vice chair.

SSEB is updating its spent fuel and high-level waste transportation handbook. They have received comments from DOE and are expecting to release the report soon.

Ms. McClelland mentioned that a truck transporting two waste containers had an accident in Arkansas, causing the containers to collapse. This was a non-media event, however, because there was no contamination.

Mr. Troy Reeves said he was not at the meeting as an alternate for Robert Owen but would give an update on Ohio activities. Mr. Reeves said the Perry Nuclear Power Plant has developed additional storage capacity for low-level waste generated at the site. This will hold 38,000 cubic feet, which will provide about five years of storage. The Davis-Besse plant will go with dry cask storage for high-level waste, and had considered using the VSC-24 cask that is being used at the Palisades plant but has instead selected NUHOMS technology. Ohio is the host state for the Midwestern Low-Level Waste Compact. At the request of the governor and the general assembly, a blue ribbon commission has completed 13

hearings to set criteria for site selection and to address issues related to facility development and regulation. The problem is that Ohio public officials, who were supposed to comment and provide input, were not educated enough on low-level waste issues. As a result, a training program will be implemented.

Mr. Borchert added that on June 29 and 30 and July 1, Nebraska and Iowa will be conducting a FRMAC exercise at the Fort Calhoun nuclear plant. DOE is bringing people and equipment.

Ms. Mary Vincent said Commonwealth Edison Company (Illinois) has indicated it will be expanding low-level waste capabilities for a minimum of five years at each reactor site. Four stations have already built interim storage facilities. Ms. Vincent also reported that the bill referred to earlier by Mr. Hand (HB-1918) augmented the state's task force on low-level waste disposal to include both an individual with at least five years of local government experience and a member of the public. The bill also expanded the hearings process. Under the bill, signed by Governor Edgar in March, counties and towns would have to prove that they are scientifically unsuited for a low-level waste disposal site, and would no longer be able to reject the site because they do not want it in their community. This bill should allow Illinois to continue disposing waste at Barnwell until 1994 because of "good faith" efforts to find a site.

Ms. Sattler asked if any reracking was taking place at the Zion and LaSalle nuclear plants. Mr. Bill Naughton said LaSalle is finishing this year, and Zion is reracking for the second or third time.

In response to a question from Mr. Strong, Ms. Vincent and Mr. Naughton said Commonwealth Edison is sending low-level waste to Barnwell. Ms. Vincent said the company was looking at incinerating low-level waste. The Braidwood plant has the capability, but has never done so because it requires dedicated crews that have not been cost effective in recent years. The increased surcharge on low-level waste disposal, however, may change that situation.

Mr. Borchert mentioned that several copies of the *Directory of State Agencies Involved in the Transportation of Radioactive Material* (produced by the Conference of Radiation Control Program Directors) were available thanks to Mr. Terry Devine.

Update of DOE Transportation Activities

Mr. Jim Carlson updated the group on the transportation management program. Mr. Carlson said that, despite the appointment of a new secretary, there were not too many other new people on board at this time.

The new secretary, Hazel O'Leary, formerly worked at Northern States Power. Before that, she was Vice President and General Counsel of International Energy Concerns, an organization that she and her husband established. She also held senior positions within the Ford and Carter administrations.

Mr. Carlson predicted that we will see differences between the new secretary and the former secretary, Admiral Watkins. Secretary O'Leary is interested in stakeholder involvement and external coordination. There will be more emphasis on input from affected parties, including states, industries, and the environmental community.

Secretary O'Leary has reorganized the DOE, as she felt the existing organization had too many "fiefdoms." The reorganization divided the department into three pods or groups: the Energy Program, the Weapons and Waste Clean-Up Program, and the Science and Technology Program. If Congress will amend the act that created DOE, Secretary O'Leary would like to establish deputy secretaries, a chief operating officer, and three under secretaries for each of the programs. Until Congress acts, the secretary will rely on the deputy secretary to head the Energy Program, and the under-secretary to head the Weapons and Waste Clean-Up Program. OCRWM's activities are under Energy Programs. There had been some discussion about placing it in the Weapons and Waste Clean-Up Program.

Mr. Carlson reported that William White, a Houston attorney, has been nominated for the position of Deputy Secretary. Robert Nordhouse, now a Washington lawyer, has been nominated as General Counsel. Bill Taylor, another Houston lawyer, has been nominated as Assistant Secretary for Congressional and Intergovernmental Affairs. Susan Tierney, from the Massachusetts Department of the Environment, has been nominated for Policy and Planning. Tara O'Toole, from the Office of Technology Assessment, has been nominated to be Assistant Secretary of Environmental Safety and Health. Tom Grumbly, head of Clean Sites, Inc., which works on DOE site clean-up activities, has been nominated to be Assistant Secretary for Environmental Restoration and Waste Management.

Mr. Kucera reported that he heard management in the field would also report to the Associate Deputy for Environmental Restoration and Waste Management. Mr. Carlson said Admiral Watkins had wanted the laboratories and field offices to report to assistant secretaries. Now, field office managers report to the Office of Associate Director who reports to the Deputy Secretary. The funds and technical direction come from headquarters originally but on-site reporting rests with the field office manager who reports to the deputy secretary.

Mr. Carlson went on to report that John Kelleher, Senate Defense Intelligence Director, was named to the Office of Intelligence and National Security. John Rosenschweig is the Secretary's Chief of Staff. Lake Barrett is the Acting Director of OCRWM. Mr. Barrett was the Director of the Systems and Transportation Division five years ago, and also worked at Rocky Flats.

Secretary O'Leary committed to a review of the waste management program during her confirmation hearings, and she has begun that process. Questions have been raised about whether the review will be conducted internally or independently. Nevada wants the White House to conduct the review. Mr. Carlson did not think DOE supported a White House review.

The Secretary has given the go ahead to develop multi-purpose canisters. She also supports the proposal to take the Nuclear Waste Fund off budget. The budget for the waste-management program currently is tied to Gramm-Rudman limits, where domestic and defense budgets are capped. Because waste fees do not come from general revenues, OCRWM does not feel they should be under those limits. Apparently, legislation to take the Nuclear Waste Fund off budget will be proposed. With regard to Yucca Mountain, Secretary O'Leary has approved exploratory excavations at the site. She created the position of Chief Scientist for Yucca Mountain based on recommendations received from the Nuclear Waste Technical Review Board (NWTRB) and the National Academy of Sciences (NAS). She also expressed support for continuing negotiations with local governments for payments equal to taxes.

The secretary has put a hold on a few projects. She wants to review alternative repository licensing strategies and the approach to the 1998 waste acceptance requirement, including consideration of utility compensation alternatives and options for near-term storage. Currently, the National Association of Regulatory Utility Commissioners (NARUC) and the Keystone foundation are looking at these issues.

The repository program has a budget of \$270 million this year. Progress has been made underground at Yucca Mountain. Drilling and blasting for the access ramp for the exploratory studies facility has begun, along with the drilling of boreholes to the unsaturated zone (the water table is hundreds of feet below the surface). Lastly, trenching activities are underway to investigate faulting.

The Energy Policy Act of 1992 had two sections dealing with the repository. First, the act requires the EPA to promulgate disposal standards specific to Yucca Mountain based on recommendations from the NAS. In addition, Section 803 looks at the adequacy of the waste management program to deal with increases in the amount of waste. This review should be completed in the next couple of months, as some hearings have already been held.

Mr. Carlson reported on the status of MRS grants. The deadline for Phase 1 grants closed last June. There were 21 applicants, but less than 10 were approved. Nine applications were received for Phase IIa grants. All Phase IIa applications are from tribes, some of whom are considering going to IIb. Phase IIa funds

allow a participant to prepare a proposal and the environmental documentation to support it. Phase IIb requires a participant to enter into negotiations with the objective of finding a site.

Mr. Kucera asked what kind of performance requirements would be in place if someone was awarded the money under IIb. Mr. Carlson said he would have to check but that the need would be to identify a particular parcel of land. Mr. Kucera asked what the applicants are doing with Phase IIa funds. Mr. Carlson said they would be narrowing down site options and getting surrounding communities involved, such as forming citizens' advisory groups. In response to a question from Mr. Kucera about what the applicants would do with the \$2.8 million available under Phase IIb, Mr. Carlson said grant recipients would develop environmental documentation, collect data, and prepare a report.

Mr. Kerr asked if DOE had set a deadline for selecting applicants for Phase IIa and IIb grants. Mr. Carlson replied that DOE has not really set a deadline. Referring to the situation Mr. Kerr had discussed earlier, Mr. Carlson said DOE is reviewing the Prairie Island Indian Community proposal for a Phase IIa grant. Mr. Carlson said he is not sure DOE ever had precise guidelines. However, Mr. Carlson said it would be difficult to give the Prairie Island Indian Community money to study an MRS, as they are so opposed to interim storage. Mr. Carlson added it was once said that this community was going to study using the land for an MRS facility and then sell it.

Mr. Carlson provided an update of the status of Delivery Commitment Schedules. The Acceptance Priority Ranking, published annually, identifies the queue for the federal government to accept fuel from utilities and the established method by which storage will be allocated. DOE combines projected acceptance capacity with priority rankings to produce its annual capacity report. The utilities with allocations are to submit a Delivery Commitment Schedule identifying fuel, facility, shipping mode, and other information related to delivery 6 1/2 years or 63 months prior to DOE acceptance. Once a DSC has been approved, producers can propose exchanges of acceptance rankings with other utilities who have had their DCSs approved.

Fifteen purchasers who had allocations in the first year have had their DCSs reviewed [as of June 23, 19 DCSs for first year allocations had been reviewed]. The DCS will become the basis for the final delivery schedule submitted one year prior to acceptance. One purchaser -- General Atomics -- had only a small amount of research fuel and decided not to submit a DCS. Two purchasers have been disapproved, as they proposed that DOE take all their fuel the first year. Twelve DCSs have been approved. Some are in the Midwest -- Point Beach, La Crosse, Dresden, and GE Morris, for example, are scheduled to have fuel picked up in the first year.

Mr. Carlson reviewed the general program direction in 1993 and 1994. Congress has provided specific language asking why DOE is spending money on storage and transportation when a site has not been selected for the repository. Congress has also indicated that DOE should devote more money to the repository and put more emphasis on this area. The 1994 transportation budget is looking smaller than the \$18 million approved for 1993. Mr. Carlson acknowledged that the WIEB white paper raises several good points, especially if DOE settles on a place to ship the waste but does not have adequate resources to develop a transportation program.

Mr. Kucera asked if OCRWM has the responsibility for greater-than-class-C commercial waste. Mr. Carlson replied that it did not, and that responsibility would lie with Environmental Restoration and Waste Management. Until the NRC changes the definition, OCRWM would steer clear of class C waste. Mr. Bill Teer mentioned that OCRWM is responsible for the non-fuel-bearing components of spent fuel assemblies, and Mr. Carlson added that under the Standard Contract, this may mean greater-than-class-C waste.

In response to a question from Mr. Kucera, Mr. Dave Zabransky said that the U.S. Nuclear Corporation, which will be a private corporation as of July 1, will be working on laser plasma separation of isotopes that could be used to remove U-235.

Mr. Kucera asked if rapid development in that arena could resurrect plans for another disposal site. Mr. Zabransky replied that this was not commercially viable, but that three to five years from now, it could be. He added that these decisions were market driven. Mr. Kucera asked if there would be a market if DOE and Congress expressed a need, and Mr. Zabransky said there would be.

Mr. Strong asked when an MRS site will reach the point of full-scale site characterization and who is then in charge. Mr. Carlson replied that the Nuclear Waste Negotiator puts together a proposal that has to be approved by Congress before full-scale licensing and characterization can take place.

Mr. Teer provided an overview of the redirection of the OCRWM program. Mr. Teer said casks get a large part of the FY 1993 budget, especially the GA legal weight truck cask and the B&W BR-100 rail/barge cask. The task is to develop a system to move the fuel. He noted that the numbers for FY 1994 are down to \$17 million from \$18 million in 1993. OCRWM was revising the transportation program networks in order to get a complete flow diagram of what has to happen to get the system in operation.

Mr. Teer commented on the consolidation of the cask program, noting that the program has been operated by the Idaho field office, but will be transferred to headquarters and the M&O contractor's direction in 1994.

Current and near-term activities under support systems and operational planning include working with General Atomics to develop a legal weight truck cask and a trailer to support it. To meet the 80,000 pound legal weight truck limit, a light weight tractor also needs to be identified. The M&O contractor will develop specifications and locate a suitable tractor. General Atomics has fabricated the trailer and it will be tested in June. The tractor will be tested at the Allied Signal Proving Grounds outside of South Bend, Indiana. The test will simulate 250,000 miles. The tractor and trailer, which will carry a simulated cask load of 54,000 pounds, will also be run over 25,000 miles of actual highway.

Mr. Teer reported on the development of Service Planning Documents. OCRWM is working on putting together all the information on infrastructure and accessibility from sources such as FICA and NSTI for each reactor site.

Mr. Zabransky asked if there would be utility review of this document. Mr. Teer said OCRWM would send it out to utilities to make sure it is correct and modify it if necessary. This information will become part of the Site-Specific Services Planning Document.

Mr. Teer reported on the evaluation of the Delivery Commitment Schedules, which involves looking at each DCS and evaluating its effect on the transportation system. For example, if Commonwealth Edison wants to ship out of Dresden with a truck and OCRWM has reason to believe the facility can handle a rail shipment, OCRWM will ask for an explanation of why truck was selected as the shipment mode.

Mr. Teer said the preparation of the Transportation System Requirements Document (TSRD) will be finished in September, and the remainder of FY 1993 will be spent preparing transportation operation issue papers, the DCS evaluation and issues report (the draft was prepared in April), and the preliminary draft planning and control design requirements document based on the TSRD. Mr. Teer added that the Geographic Information System for routing analysis may be demonstrated at the TCG meeting.

Argonne National Laboratory is nearing the completion of two risk assessment and analysis modeling efforts. RISKIND uses a single individual risk analysis code. Enhancement modules (i.e., the program to prepare input data for RADTRAN) allow the user to simulate spent fuel instead of just any kind of radioactive material. The modules are to be installed on TRANSNET this year and are accessible through Sandia. Mr. Borchert asked if these systems will be available to states and Mr. Teer replied that they would.

Mr. Teer said the draft revision of the reference transportation data and assumptions report includes cost and reactor information to provide a baseline of assumptions for anyone conducting transportation studies.

Mr. Teer reported on transportation institutional activities. In the area of Governmental Coordination, the TEC Working Group/Transportation Emergency Preparedness Program (TEPP) Steering committee membership includes representatives from state, regional, local, tribal, and industry organizations. The first meeting was held in New Orleans from March 30 - April 1, 1992, and the second meeting was held in San Francisco on December 7-9, 1992. Twenty national and regional groups were represented, a charter was completed, and an overview of the DOE program planning and budget process presented. The next meeting will be July 21-23 and, according to Ms. Elissa Turner, Chicago is the likely location.

Mr. Teer said OCRWM participates in two subcommittees within the Federal Radiological Preparedness Coordinating Committee (FRPCC) -- the Transportation Accident Subcommittee and the Training Subcommittee. Ms. Turner reported that Ms. Susan Smith of OCRWM is on both committees, and the Emergency Response Subcommittee is working on reviewing the Springfield, Massachusetts, fresh fuel accident. The Training Subcommittee submitted comments to the 1993 DOT Hazmat Response Guidebook to try to address deficiencies in radiological response guidelines. The impact of these efforts may not be apparent in the 1993 version, which is coming out in October, but may have a greater effect on the next edition.

Mr. Teer reported that the HMTUSA Interagency Coordinating Committee for Section 17 planning and training grants distributed application kits to states and Indian tribes. All states but Maine applied, as well as a few Indian tribes. All applicants received grants. DOT will increase the revenue base from the hazmat registration fee.

In response to a question, Ms. Turner said the amount of each grant was based on what was being requested, and Mr. Moussa added that awards were based on data, such as population, using a state allocation formula. Ms. Turner said, in all, 49 states and three tribes received grants. Mr. Moussa said he mailed Ms. Sattler a list of what each state was allocated, including states in the Midwest.

Mr. Teer said the current curriculum initiatives include reviewing the implications of OSHA requirements and developing curriculum guidelines and a support system for training managers.

Mr. Kucera asked if OSHA requirements apply to OCRWM. Mr. Teer said some aspects do, but the requirements of the cask safety program would overwhelm anything OSHA would require. Mr. Kucera asked if some parts of DOE have their own rules. Mr. Carlson replied that the NRC requirements exempt OSHA. He said this issue is not specifically addressed in the Nuclear Waste Policy Act. DOE has entered into agreements, but Mr. Carlson was not sure if they were voluntary. He said he would look into this.

Mr. Teer reviewed the cooperative agreements, including those with the Midwestern Office of The Council of State Governments (CSG), the Southern States Energy Board (SSEB), the Western Interstate Energy Board (WIEB), the National Conference of State Legislatures (NCSL), the National Congress of American Indians (NCAI), the Conference of Radiation Control Program Directors (CRCPD), and the Commercial Vehicle Safety Alliance (CVSA).

Mr. Teer provided an update of CVSA's activities, including an update on the national safety inspection procedures for commercial vehicles. A training course was conducted on February 23-25 in Woodburn, Oregon, to evaluate procedures for WIPP shipments and to allow CVSA inspectors to look at the GA cask.

The TCG meeting last May in Phoenix focused on routing policy, and now policy papers on how routing policy criteria are applied are being developed. Issues include how to get maximum involvement from stakeholders, including states, tribes, and localities, and Section 180(c) implementation. The draft routing strategy identifies the steps and process in developing a routing policy, provisions for public involvement, and options for the routing policy process. The document will also include a schedule for

completing the various tasks. One primary problem is the need to establish a destination before routes are planned.

In November, OCRWM published its final strategy for implementing Section 180(c). The outline for the options paper was distributed at the last WIEB and TEC meetings. The outline identifies five options for distributing funds to states and Indian tribes, including DOE setting up its own organization or using HMTUSA, FEMA, or other agencies. The draft options paper, which focuses on funding mechanisms for administering Section 180(c) requirements, is under internal review.

OCRWM is in the process of drafting the transportation portion of its Indian Policy Implementation Plan, which will be coordinated with other programs within DOE. The Indian Policy Implementation Plan is designed to get Indians involved as much as possible. The transportation portion will include OCRWM's commitment to the DOE Indian Policy and will describe transportation activities requiring tribal involvement. The NRC requires pre-notification of state governors. OCRWM would like to notify Indian tribes and is currently working with the NRC on changing this policy.

OCRWM is also drafting a comprehensive Transportation Plan, which is a merger of the 1986 Transportation Business and Institutional Plans. Finishing the draft transportation plan involves reviewing program changes, updating early internal drafts, and reviewing the WIEB strategic plan for applicable input. Other program documents in the works include a report on MRS siting and a revised mission plan. Ms. Sattler asked when the mission plan will be out. Mr. Carlson said it has been shelved, as it went to Admiral Watkins' office, but never emerged.

Mr. Teer said as of September 1991 the cask program is a two-phase program. Phase I involves current technology casks -- essentially technology that the NRC has already seen, with no unusual materials or techniques. The draft RFP is scheduled to be issued for public comment on May 28, 1993, and will include LWT, rail/barge (75-100 ton range), and short LWT (as early generation reactors have shorter fuel than standard 12 foot, this cask will have a 140 inch cavity). The final RFP, due in early 1994, may not include all three. Phase II (also known as the Initiative 1 - Cask Systems Development Program) involves review by an independent management review group. The group has met four times, issued a report in August 1992, and made recommendations on the B&W and GA casks, addressing operability and fabrication. The IMRG's comments were considered and design changes are being incorporated by cask vendors.

Safety Analysis Reports will be submitted without burnup credit. The advantage is that this puts all other concerns on the table, and the SAR can be modified later to include burnup credit. Mr. Teer explained that burnup credit involves taking advantage of the depletion of uranium in fuel in doing criticality calculations instead of assuming new fuel. He said the NRC feels there are still many unknowns, such as exactly how to do the calculations. Mr. Zabransky added that only one part of the NRC is concerned, as other divisions have been using this system for 25 years and utilities have been using it for storage of spent fuel. Mr. Teer agreed. Even without burnup credit, though, the GA cask can take about 80 percent of the fuel that has to be shipped, and the BR-100 rail/barge cask can ship a full load of 20 percent of the fuel.

One criticism is that comments made on the program are not being resolved, so a tracking system is currently in the advanced stages of development by the M&O contractor. All comments made by boards and review groups will be entered into a database, making it possible for users to search for comments by subject.

Mr. Teer reported on the independent fabrication cost evaluation of GA-4/9 casks. There are questions about the complexity of cask design, and vendors and manufacturers made recommendations on how the casks can be fabricated, simplified, and made less costly. The overall cost estimate was comparable to GA's, although some components were different.

Multi-Purpose Cask Program

Overview and Effects on Transportation Activities. Mr. Carlson began by providing some background information on the cask program. When the Nuclear Waste Policy Act passed in 1982, it was felt industry ideas would help to better integrate the waste program. In 1985, OCRWM issued a Program Research and Development announcement, and received a number of proposals from industries. Westinghouse proposed universal casks suitable for storage, transportation, and disposal, NAC proposed small canisters, and one group proposed a centralized storage facility. DOE felt the MRS option offered the best integration of the waste management system. The NRC has been concerned with the proliferation of alternative dry cask designs, and in November of 1988 urged the compatibility of various steps in the storage, transport, and disposal of spent nuclear fuel. An MRS review commission has asked what DOE was doing to enhance capability, and the NWTRB has expressed interest in minimizing waste handling. The Mescalero Apaches did not want to see any bare fuel moved if they become the MRS host. They also were interested in modular storage unit designs.

Mr. Carlson then spoke of some general industry feelings about the MPC. EEI's Advisory Committee on Radioactive Waste Disposal has passed a resolution advocating that the MPC be considered as an option to help utilities deal with on-site storage problems. Virginia Power Company has submitted a proposal to develop a multi-purpose canister system.

DOE has asked the M&O contractor to look into the feasibility of an MPC system. An MPC is a metal container that would hold multiple fuel assemblies and would be capable of being incorporated into a transportation package or a separate overpack for either temporary storage or permanent disposal in a repository. This would allow the government to come in and transfer the fuel from a storage container to a transport cask without going back into the reactor pool. Once canisters are sealed, they would not be reopened. The canister and overpack must meet NRC regulations for storage (10 CFR Part 72), transportation (10 CFR Part 71), and disposal (10 CFR Part 60).

Mr. Carlson reviewed the major MPC system characteristics. The MPC would provide structural integrity and criticality control during handling, storage, and transportation accidents, would eliminate the need to handle bare spent nuclear fuel after packaging, and would provide compatibility for storage, transport, and disposal. Preliminary design concepts include small MPCs for truck transport of two to five PWR assemblies, large MPCs for 21-40 PWR assemblies, and a thick-walled canister that would be self-shielded but would require an overpack for transport.

Quantitative evaluation criteria include spent nuclear fuel handling, occupational and public radiation exposure, cost, and schedule impacts. Qualitative criteria include licensing and regulatory impacts, subjective ideas (e.g., enhancing public perception of the waste management system), contract resolution impacts, and system flexibility.

Mr. Carlson said the MPC has many advantages, including facilitating compatibility of at-reactor dry storage, providing a potential mechanism for shutdown reactors to proceed with decommissioning of spent fuel pools, reducing, on the federal side, contamination and low level waste concerns, and simplifying CRWMS facilities such as the cask maintenance facility, the MRS facility, and the repository.

Disadvantages of the MPC include the requirement of additional at-reactor operations, the fact that the standardized system with large MPCs (125-ton) is not compatible with all reactor facilities, the potential increase in cask fleet mix, and possible changes in the existing 10 CFR 961 Standard Disposal Contract.

Mr. Carlson summarized the conclusions of the MPC feasibility study. Large MPCs significantly reduce the number of times spent fuel would be handled; however, while federal system exposure remains about the same, exposure at the sites of waste generation potentially increases. There may be an increase in the amount of rail shipments, which may lead to an overall decrease in shipments and exposure. The maximum benefits will be realized if all sites use large MPCs. To achieve reasonable benefits with an MPC system, all rail cask sites should use large MPCs.

Industry issues include the Standard Contract and the question of whether or not DOE will provide funding for reactor facility upgrades. MPC licensing issues include burnup credit, as a large number of assemblies will require credit for depletion of fissionable material. The repository program had been counting on small containers, therefore the effect of large MPCs on thermal loading will be evaluated before funds are committed. DOE does not want to open the canister once the canister has been received. Other issues include certification for utility use under a general license and performance credit for canisters.

Future activities include developing an MPC system design. The M&O contractor prepared the conceptual design, and the go ahead may come in the beginning of FY 1994 after interacting with stakeholders and creating cost estimates and schedules. Plans involve broad organizational involvement and include a detailed requirements assessment.

Utilities have provided input on subjects such as at-reactor welding of canisters, reactor licensing conditions that may impact loading and use, the maximum size MPC for each reactor site, if facility modifications are required, and access to rail or barge facilities. Other issues that will affect utilities include the use of MPCs for on-site storage, use of a dry cask-to-cask transfer system at sites where pools cannot load large casks, and the use of small MPCs instead of cask-to-cask transfer where sites cannot handle large MPCs.

Products of the conceptual design phase include conceptual designs of the canister, the transport cask, and the utility transfer system. Design specifications and draft RFPs exist for the canister, the transportation cask, the storage mode, and the transfer system. These projects should be completed within an eight-month time frame. Reports and studies include waste package design considerations, a regulatory compliance report, schedules and cost estimates, and a summary report. Current activities include a quality assurance analysis (classification and grading), a design requirements assessment and analysis, creation of detailed schedules and plans, and deliverable products definition and planning.

Mr. Miernyk asked if there will be full-scale testing of the MPC. Mr. Carlson said this matter was still being decided but he indicated there was broad interest from states in full-scale testing.

Utility Industry's Perspective. Mr. Zabransky said utilities agree that there is a need to move toward compatibility in the waste management system, but the utilities' timelines have not been compatible with DOE's timeline, and this incompatibility has moved each towards their own resolution using many different technologies. The MPC concept has many benefits, including the potential for system-wide cost savings, the fact that it should make DOE facilities cleaner and easier to construct, and simplification of the transportation process. The system would also reduce spent fuel handling, although it does create complications for utilities that were not planning on sealing canisters. There would be post-shutdown savings as a utility would be able to transfer all fuel from the spent fuel pool to dry storage. When the reactor is decommissioned at the end of the 40-year operating license, the pool, which also has a 40-year license, either has to be relicensed or the fuel will have to go into dry storage. The NRC also requires some means of on-site recovery for dry storage -- that is, to unload a dry storage cask and repackage it if a problem arises. The casks will be licensed for periods of only 20 years, which may or may not be sufficient for onsite storage.

Mr. Zabransky said there are a number of reasons why utilities are in favor of MPCs. Utilities believe on-site storage expansion is inevitable, even with a 1998 completion date, because DOE acceptance will not keep up with the rate of generation. Utilities also believe the MRS completion date is uncertain because of the voluntary nature of the process. The NWPA limits MRS capacity to 10,000 MTU, which is only about five years of storage space at the current generation rate. State utility commissions believe on-site storage charges customers for a service they have already paid for. Payments to DOE were for the removal of spent fuel in 1998, and commissions are not sure why the customers should pay again for additional on-site storage. DOE's providing of MPCs could answer that concern. Utilities also believe compatibility within the waste management system does make sense.

Mr. Kucera asked how utilities address the NRC requirement that they be capable of totally emptying the cask system. Mr. Zabransky replied that the NRC currently requires the utility to have the capability to recover fuel from a cask by retaining transfer pools or having a cask for cask-to-cask transfer. He said they are looking at alternatives which could be in place by the time the MPCs are put on site.

Mr. Kucera asked if recovery could be accomplished within current regulations or if Congress has to get involved. Mr. Zabransky cited the example of the Sacramento Municipal Utility District, which is looking at using NUHOMS technology as a once-sealed transportable container in decommissioning the spent fuel pool. SMUD agreed to keep a number of storage casks on site to use for recovery and to let the transport casks sit on site.

Mr. Zabransky provided an update on the EEI/UWASTE Universal Cask System Task Force, which was established in February of 1992 to investigate the concept of a universal cask system (UCS). The task force has developed the *UCS Concept Paper*, which details what the utilities' concept would look like. The report concluded that the UCS has the potential to be a cost benefit to the system, but care should be taken to avoid adopting the system regardless of the price.

The NRC will approve these canisters generically, but the utility will be in charge of the internal safety review and of sealing and maintenance. The utility will also have to provide the storage overpack.

Mr. Borchert asked if any technical considerations were given to the cask welds. Mr. Zabransky said the welds are not very complicated, and the NRC has found them to provide adequate long term stable storage seals. He added that this is not a new technology.

Mr. Zabransky reviewed UCS logistics. The UCS would be delivered to utilities on an oldest fuel first (OFF) allocation basis, and further criteria would be established for when utilities enter the queue. The acceptance rate should exceed the fuel generation rate (2000 MTU rather than 300 or 900 MTU as currently planned), and there should be need-based delivery available for a fee so utilities do not have to pay to build another company's on-site storage. The utility provides the on-site storage overpack, and DOE provides overpacks for transportation, storage at the MRS facility, and disposal in the repository.

Mr. Borchert asked if the NRC had regulatory oversight, and Mr. Zabransky said yes, presuming the facilities are on site for generic certification. He added that some plants are going to have a difficult time meeting the NRC's criteria. There is a required 100-meter setback from all property lines, and San Onofre, for example, has a 700-foot wide site.

EEI/UWASTE's resolution is that DOE should proceed with development of the UCS, incorporate it into the waste management system, and make the UCS available by January 31, 1998. This allows DOE to fulfill part of its obligation to utilities, although Mr. Zabransky stressed that container delivery is *not* a substitute for fuel receipt. Also, because of site-specific concerns, DOE should not make the UCS mandatory.

Issues to be addressed include canister and overpack design requirements, timing of implementation, the impact on program activities already under way, and pool fuel deliveries. Other issues include reimbursement and equity issues for utility improvements. For example, NSP has just invested \$2 million to upgrade a crane, and another utility may decide to wait and ask DOE for the funding to do the same thing. Utilities have to discuss who is going to pay for what so utilities do not subsidize one another. In a general sense, utilities do not meet NRC and IAEA requirements, which may require that sealed canisters be reopened to verify the contents.

Mr. Zabransky reviewed recent events including the December 1992 letter from Secretary Watkins endorsing the UCS concept, the December 1992 EEI/UWASTE Steering Committee resolution, the January 1993 NWTRB presentations, and the January 1993 DOE assessment. He also noted that some utilities are busy trying to site existing facilities and cannot wait for 1998, although most utilities should be able to handle a thin-walled metal cask with an overpack.

Mr. Zabransky reviewed industry MPC system implementation efforts. An implementation team that represents a diversity of utilities was formed in February. The team adopted DOE terminology (i.e., "multi-purpose canisters" rather than "universal containers") and provided input to DOE on MPC design parameters. EEI/UWASTE is evaluating Standard Contract issues such as waste acceptance criteria and equity concerns.

Mr. Flater asked how far the NRC is in the licensing process. Mr. Zabransky said they have not seen a submittal, but most of the issues were raised in certifying the VSC-24. He added that the NRC has seen things like this for storage, but not for transportation or disposal. Ms. Julie Jordan added that Pacific Nuclear has an application in for a Part 71 license for a NUHOMS canister for overpack and transport. She said EEI is monitoring the process and hears things are going well.

Mr. Zabransky said burnup credit does not seem to be a big issue, but canisters that are licensed right now for storage and do not use burnup credit do not have poison baskets. These canisters may cost \$150,000 to \$200,000. The basket alone could run \$100,000 each, so if 10,000 canisters are made, this adds a significant up-front cost. This investment may not be economical, and utilities may decide they cannot afford full compatibility for that price. He noted that NRC's requirements assuming a utility loads new fuel is not credible.

Mr. Miernyk asked if Mr. Zabransky anticipated a concurrent licensing process for storage, transportation, and disposal, as he had heard the Sacramento Municipal Utility District project was supposed to license storage and transportation concurrently but may just license storage up front. Mr. Zabransky said utilities envision a concurrent process for transportation, storage, and disposal to the greatest degree possible, given what is known about the repository. The utility executives want to encourage the NRC to license both storage and transportation at once so the investment is worth it. Mr. Zabransky said dual purpose casks cost \$1 million each, and if they cannot be moved, they are not worth it.

Ms. Sattler said she believed OCRWM's feasibility study, *A Preliminary Evaluation of Using Multi-Purpose Canisters Within the Civilian Radioactive Waste Management System*, scheduled storage licensing before transportation licensing. Mr. Teer said the schedule OCRWM is looking at has the transportation application going in first, as this aspect has the most severe requirements. The storage certification procedure should be easier and shorter, and the schedule shows transportation and storage certification being issued at about the same time. Mr. Zabransky said it would be hard to justify the additional cost to utility customers if there is no guarantee the canisters will be used for their intended purpose. Mr. Carlson said until there is construction authorization and approval from the NRC for the repository, this program will be moving at some risk if it goes ahead. Mr. Carlson added that OCRWM will try to address licensing up front with the NRC to minimize this risk, and OCRWM will also try to parallel the NRC's efforts, before a major commitment of resources is made.

Mr. Kucera asked what kind of National Environmental Policy Act activities have to go along with the MPC program. Mr. Carlson said the environmental impacts have to be considered. Mr. Zabransky said the NRC has done a generic environmental assessment and has determined there is no environmental impact for dry storage systems. Dry storage systems require no site-specific or generic environmental impact statement. Mr. Kucera asked if there could be broader implications, including broader environmental assessments. Mr. Carlson said the repository environmental assessment would need to be broader. Mr. Zabransky said the utility or vendor can design, license, or certify any storage container without conducting an environmental assessment. Mr. Teer said an MRS environmental assessment will include consideration of transportation impacts no matter what cask is used. Mr. Zabransky said the NRC guidelines for environmental assessments apply only to 10 CFR 50 licenses at reactor sites, not to the MRS.

Mr. Miernyk asked for the utilities' perspective on cask-to-cask transfer. Mr. Zabransky said not much was being done past the conceptual design phase. Although cask-to-cask transfer has been done in a number of places, it has not been designed for any specific cask under consideration now. Most casks will

require some type of transfer mechanism at the site. Mr. Zabransky said utilities support the development of this activity and will allocate research and development money for it. Utilities will also encourage DOE to include cask-to-cask transfer in conceptual designs and cooperative agreements.

Mr. Borchert thanked everyone for attending and adjourned the meeting at 5 p.m.

Tuesday, May 4: Tour of Palisades Nuclear Plant and Dry Cask Storage Facility

The committee and meeting participants toured the Palisades Nuclear Power Plant outside of Covert, Michigan. Palisades had recently received approval to use its eight VSC-24 concrete casks for interim storage of spent fuel.

The meeting participants viewed an informational video on the dry storage casks, and also heard a presentation by Mark Savage, who is Director of Public Affairs at the plant. The participants then toured the plant and the dry cask storage facility. Plant employees led the tours and answered questions about the plant and the casks.

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