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MINUTES OF THE 42ND ACNW MEETING
APRIL 22-24, 1992

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Program Plan for the Advisory Committee on Nuclear Waste
(Report to Chairman Selin, dated May 1, 1992)

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Issued: May 28, 1992

MINUTES OF THE 42ND MEETING OF THE
ADVISORY COMMITTEE ON NUCLEAR WASTE
APRIL 22-24, 1992
BETHESDA, MARYLAND

The 42nd meeting of the Advisory Committee on Nuclear Waste was held Wednesday, Thursday and Friday, April 22-24, 1992, in Room P-110, 7920 Norfolk Avenue, Bethesda, Maryland. The purpose of this meeting was to discuss and take appropriate actions on the items listed in the attached agenda.

A transcript of selected portions of the meeting was kept and is available in the NRC Public Document Room at the Gelman Building, 2120 L Street, N.W., Washington, D. C. [Copies of the transcript taken at this meeting may be purchased from Ann Riley & Associates, Ltd., 1612 K Street, N.W., Washington, D. C. 20006.]

Dr. Dade W. Moeller, Committee Chairman, convened the meeting at 1:00 p.m. and briefly reviewed the schedule for the meeting. He stated that the meeting was being conducted in conformance with the Federal Advisory Committee Act. He stated that the Committee had received neither written comments nor requests from members of the public for time to make oral statements. However, he invited members of the public, who were present and had something to contribute, to let the ACNW staff know so that time could be allocated for them to make oral statements.

ACNW members, Drs. William J. Hinze, Dade W. Moeller, Paul W. Pomeroy, and Martin J. Steindler were present. [For a list of attendees, see Appendix III.]

I. CHAIRMAN'S REPORT (Open)

[Note: Mr. Richard K. Major was the Designated Federal Official for this part of the meeting.]

Dr. Moeller identified a number of items that he believed to be of interest to the Committee, including:

- The monitored retrievable storage (MRS) facility grant deadline has been extended. Phase I applications will be accepted up to June 30, 1992 and Phase II applications will be accepted through September 30, 1992.
- U.S. Department of Energy (DOE) Task Force on Radioactive Waste Management will meet on May 1, 1992, in Amargosa Valley, Nevada, and on May 7, 1992, in Las Vegas, Nevada,

to seek comments on public trust and confidence in DOE activities.

- A U.S. Environmental Protection Agency (EPA) Consultant Study claims that there are more than 45,000 sites across the country that are contaminated with radioactive materials. Nearly half are owned by the Federal government.
- The General Accounting Office (GAO) recommends that the DOE delay its cask development program for high-level radioactive waste (HLW). This is thought to be a cost-saving measure, since DOE is unlikely to have even a limited MRS facility by 1998.
- Dr. Malcolm Knapp has been appointed Director, Program Management, Policy Development and Analysis Staff, Office of Nuclear Material Safety and Safeguards (NMSS).
- Dr. John McKetta has been appointed to the Nuclear Waste Technical Review Board, effective February 18, 1992.

II. ON-SITE STORAGE OF LOW-LEVEL RADIOACTIVE WASTE PROPOSED RULEMAKING (Open)

[Note: Mr. Howard J. Larson was the Designated Federal Official for this portion of the meeting].

Mr. Jim Kennedy, NMSS, introduced the topic and provided a brief history of the evolution of the proposed rulemaking. He noted that the Low-Level Radioactive Waste Policy Amendments Act of 1985 (LLRWPA) permits generators to request that their State take title and possession of their LLW by 1996. Should the State refuse to do so, the State becomes liable for all direct and indirect costs incurred by the generators as a result of that refusal. This provision is a major incentive for the States to continue to develop LLW disposal facilities.

Since early 1990, the NRC staff has been studying the issues associated with this milestone and has come to the following conclusions:

1. Although LLW can be safely stored, disposal would enhance the protection of the public health and safety
2. The LLRWPA has established a preference for disposal and has established national goals for achieving adequate storage capacity

3. The NRC believes it has the authority to advance the goals of the Act
4. On-site storage by many LLW generators will likely be necessary due to the lack of progress by states in developing sufficient new disposal capacity.

Dr. Moeller asked whether it was possible to fulfill the requirements of the LLRWPA by providing an LLW monitored retrievable storage (MRS) facility. Mr. Kennedy noted that such a path is one of the options that the states currently have and one in which New York has indicated an interest. However, it was stated that such temporary storage is not consistent with the intent of the Act, which stresses disposal.

Mr. Kennedy introduced the principal presenter, Mr. Robert Nelson, NMSS. He noted that the Commission's Staff Requirements Memorandum (SRM), dated January 30, 1992, directs the NRC staff to develop a rulemaking that would establish the regulatory framework setting forth the procedures and criteria that will apply to on-site storage after January 1, 1996. In that SRM, the staff was directed to coordinate with the Agreement States and was also told to submit the proposed rulemaking package to the Commission in May 1992.

The proposed rule only permits storage after January 1, 1996 provided:

- all reasonable waste management options have been exhausted by the licensee, and
- the licensee retains all relevant documentation and records making them available for NRC inspection.

In response to a question from Dr. Hinze, the records are to be retained until the NRC inspector, during a normal inspection cycle, has reviewed them (a period of about two years).

Following a briefing of the contents of the proposed rule, Dr. Steindler asked how the regulatory analysis impacted upon the public, particularly disposal vis-a-vis storage. The staff responded that they believed that the disposal option was enhanced, even if indirectly. They also realize that the current situation regarding on-site storage is a reality and trust that this rule will encourage disposal.

The regulatory analysis revealed that approximately 14,700 licensees will be impacted, at an average cost of some 25 hours/year, or \$2,875 per year/licensee. The staff concluded its remarks by presenting their current schedule, which is directed toward completing the entire administrative notice, comment, review

and approval cycle and having the rule in place by December 31, 1992.

After further discussion, it was agreed that although there could be many points raised on either side of the storage versus disposal consideration, the staff had little choice but to uphold the Congressional mandate espoused in the LLRWPA. Dr. Hinze raised the issue of the small generator (hospital, university, etc.), noting the need to provide an adequate on-site LLW storage capability could be excessively expensive. Mr. Kennedy noted that the small generators had already raised this question, and that the NRC had to consider the economic impact on such generators in the promulgation of all of its proposed rules.

After further discussion, the Committee prepared and approved a report to Chairman Selin endorsing the objectives of the proposed rulemaking.

III. PATHFINDER DECOMMISSIONING AND STATUS OF OTHER DECOMMISSIONING EFFORTS (Open)

[Note: Mr. Howard J. Larson was the Designated Federal Official for this portion of the meeting].

Mr. Terry L. Johnson, NMSS, acted as the coordinator for this portion of the meeting. He introduced Mr. Al Kuroyama, Northern States Power (NSP) project manager for the decommissioning of the Pathfinder Nuclear Power Plant and Mr. William Fisher, Region IV licensing branch chief, whose responsibilities included overseeing the decommissioning of this facility.

Mr. Kuroyama described the operational experience at Pathfinder which was a 66 Mwe demonstration boiling-water reactor (BWR) with a nuclear superheater. He noted that Pathfinder operated intermittently from 1964 to 1967, generating the equivalent of 88 full power days. It was shut down in 1967 due to mechanical failure of the steam separators and was converted to a fossil fuel plant in 1969. Pathfinder was partially decommissioned to SAFSTOR status in 1971.

The Plant, at the time of the onset of the Phase II decommissioning in 1990, was very dry and very clean. NSP first removed hazardous materials, namely asbestos, and then proceeded to remove the wiring and the piping. The biggest and most difficult aspect of the project was the safe removal and shipment of the pressure vessel, which proceeded on schedule and without incident. Perhaps the trickiest aspect of the vessel shipment was accommodating the actual clearances through the Vista Tunnel in Montana (it was successfully transported by a specially modified train with about one-half inch clearance.)

Statistically, 1148 cu. meters of radioactive waste were shipped, weighing 1207 tons and containing approximately 562 Ci (with essentially all the radioactive material being contained in the reactor pressure vessel).

Although there were some surprises in the decommissioning project, they were minor - as evident by the actual person-remS received (4) vs. those estimated (54). In light of these low values, Dr. Steindler queried whether any engineering effort was specifically directed during the original design of the facility to the future decon/decom and whether there were any unique or unusual approaches utilized. He was told there were none.

Although the Committee was cautioned that Pathfinder should not be considered as a typical decommissioning project (in light of the extremely low levels of radiation and contamination), Mr. Kuroyama pointed out that the principal lesson he learned as project manager was the need for a truly proactive public relations effort, coupled with a willingness to entertain an open dialogue with the public, intervenors and regulators.

Other aspects of the project were discussed and a most interesting series of slides taken during the decommissioning effort were shown.

Mr. Johnson noted that the facility still has an NRC license because the activity levels remain above NRC's unrestricted release limits.

Mr. Fisher noted Region IV's perspective that NSP had done an excellent job (a statement tempered by the observation that the total project was atypical of the difficulties one would expect when decommissioning a current generation facility at the end of its operational lifetime). He also discussed NSP license condition #13 (LC 13) that permitted NSP to make changes to the decontamination/decommissioning plan while continuing to proceed concurrently with other decommissioning activities. He likened LC13 to the capability provided to reactor licensees under 10 CFR 50.59. He listed several "lessons learned," including the need for the NSP-type proactive public relations program, the value of long-term radioactive decay periods (in this case some 20 years) and the need for "explicit, universally accepted radiation and contamination criteria for the disposal, salvage, and on-site burial" of materials during and following decommissioning. He also stated that radon emanating from concrete aggregate and other sources, and the subsequent presence of its airborne decay products, can interfere with low-level radiation measurements.

Mr. Johnson discussed the status of U. S. nuclear power plant decontamination and decommissioning projects. He stated that there are three nuclear power plants (Shoreham, Fort St. Vrain and Rancho

Seco) that are shutdown with the anticipation that Yankee Rowe and San Onofre 1 will also shortly commit to some form of decommissioned status. The status of these plants is:

Shoreham: 809 Mwe BWR. Decommissioning plan under review; licensee proposing immediate dismantlement; license transferred on February 29, 1992, from Long Island Lighting Company to Long Island Power Authority. It is estimated that the plant generated the equivalent of only two effective full power days. Estimated waste volumes: 80,000 cu. ft. waste, all considered Class A.

Fort St. Vrain: 330 Mwe HTGR. Decommissioning plan under review, anticipated completion of review July 1992; licensee proposing immediate dismantlement; legal action pending on prohibition of fuel shipment to the Idaho National Engineering Laboratory; in the interim spent fuel is being stored at the on-site independent spent fuel storage installation. Estimated waste volumes: 70,000 cu. ft. Class A; 28,000 cu. ft. activated Class B; 1,000 cu. ft. Class C; approximately 400 cu. ft. Greater-Than-Class-C (GTCC).

Rancho Seco: 913 Mwe PWR. Decommissioning plan under review (plant shut down as a result of non-binding referendum). Facility to be placed in SAFSTOR until 2008; spent fuel to be placed in dual-purpose casks in five years. Estimated waste volumes: 190,000 cu. ft. Class A; 8,500 cu. ft. Class B, 475 cu. ft. Class C; 470 cu. ft. GTCC plus a small amount of mixed wastes.

Dr. Pomeroy noted that all of the other plants on the list provided by Mr. Johnson were approved for SAFSTOR status only. In response to a question from Dr. Hinze, it was noted that both a Standard Format and Content guide and a Standard Review Plan for decommissioning and decontamination are being prepared.

Dr. Steindler, in his concluding observations, asked what the staff was doing insofar as assembling a "lessons learned" data bank. He was informed that RES is preparing a regulatory guide on the facilitation of decommissioning. Such a document would discuss various considerations during the design, operating and shutdown and decommissioning phases that could facilitate plant decommissioning. Although the utility group (NUMARC) worked with NSP, its plans regarding publishing a relevant document are not known. Dr. Steindler pointed out that he was not proposing the performance of decommissioning-related research projects, but rather, the application of fairly readily available technology and techniques that would simplify the job and perhaps provide both increased public and worker protection.

Dr. Moeller concluded this part of the meeting by expressing the Committee's appreciation to both the NSP and Region IV representatives for their willingness to travel to Washington to provide such an informative presentation to the Members. This meeting was for information only. No action was taken by the Committee.

IV. STAFF TECHNICAL POSITION ON ALTERNATE CONCENTRATION LIMITS FOR URANIUM MILL TAILINGS SITES (Open)

[Note: Mr. Giorgio N. Gnugnoli was the Designated Federal Official for this part of the meeting.]

Mr. John Surmeier, Chief, Uranium Recovery Branch, NMSS, briefly reviewed the subject to be discussed and then introduced Mr. Gary Konwinski, Uranium Recovery Field Office (URFO), NRC. Mr. Surmeier also introduced Dr. Michael Fliegel, Dr. Latif Hamdan and Mr. Michael Layton, NMSS, who assisted Mr. Konwinski in his presentation. Mr. Konwinski acknowledged the assistance and cooperative efforts between URFO and the uranium millers in amassing the information needed to generate the Staff Technical Position (TP) on Alternate Concentration Limits (ACL) for Uranium Mill Tailings Sites.

Mr. Konwinski noted two major areas in the presentation:

- The background issues and guidance needs related to ACLs.
- The ACL concept, as detailed in the TP.

Mr. Konwinski discussed the Uranium Mill Tailings Radiation Control Act (UMTRCA), the compliance standards mandated by UMTRCA, and how ACLs are used to achieve compliance at uranium mills with respect to ground-water protection. In describing the enabling legislation, he first addressed Title I of UMTRCA which deals with 24 abandoned uranium milling sites that were not active and licensed at the time UMTRCA was passed. These facilities are being reclaimed under DOE auspices.

The guidance in the TP pertains to Title II facilities and it applies to uranium milling facilities that have licenses issued either by the NRC or the appropriate Agreement State; it does not apply to regulatory compliance under the Title I activities, although the concept of ACLs exists in the Title I area. Mr. Konwinski indicated that there are 27 facilities regulated under Title II. Twenty five of these sites are in some stage of reclamation. He characterized the ACL TP as providing guidance leaning toward reclamation, rather than on those topics usually associated with operating facilities.

The discussion moved on to whether the 1000-year control period for reclaimed tailings sites was risk-based. The response was that the choice of the level of protection is linked to an estimate of six deaths averted per year by reducing the radon flux levels to 20 pCi/m²-s for all the uranium mill tailings sites (after reclamation).

The discussion returned to the protection of water resources at the tailings sites. Mr. Konwinski observed that, in some cases, the radon cap placed over reclaimed tailings actually serves as a partial infiltration barrier; in this case one technology serves two health protection goals. On the other hand, surface water design features, which on one hand serve to mitigate surface erosion, can on the other hand result in pooling water for recharge. Sometimes, this results in recharge for contaminant transport; in others, this serves to dilute existing contaminant plumes.

Mr. Konwinski noted that Title II sites had a long history of ground-water monitoring; unlike the case of Title I sites. (Remember that during the operational period of the Title I sites, the tailings were not viewed as health hazards. In many cases these tailings were used for construction purposes.) Prior to construction of the Title II uranium milling facilities, preoperational monitoring was required to satisfy the National Environmental Policy Act (NEPA). Thus, a baseline is available at these sites. Since monitoring requirements have evolved over time, some constituents of present concern were not necessarily monitored at the older Title II sites.

A question was raised regarding cases where mill tailings were disposed of in open pit or underground mines. Mr. Konwinski acknowledged two examples of such occurrences. The NMSS and URFO staffs were unsure of the legal application of present NRC water protection standards to these situations. It was concluded that the category of uranium mill tailings disposed of in mine shafts were covered under Title II regulations. However, an administrative decision needs to be made on how to handle these mine backfill situations. Mr. Konwinski speculated that the existing ACL guidance could be technically applied at these tailings/mine backfill situations, but there had to be a regulatory decision to apply such requirements and guidance in such cases.

Mr. Konwinski described the phases of water resource characterization during the operational and post-operational periods. These phases are:

- Detection Monitoring - Indicator species (e.g., pH, metals, anions, sodium, chlorides, cations) provide a trigger that leakage is occurring, but do not necessarily indicate lack of compliance.

- Compliance Monitoring - When statistically significant increases of the indicators are detected, compliance monitoring for all the major expected constituents begins.
- Corrective Action Monitoring - If levels (background, MCL or ACL) are exceeded, monitoring of the progress of the approved corrective action begins.

Mr. Konwinski observed that 17 of the 19 sites licensed by NRC are in corrective action.

There was some difficulty in clearly identifying some ground-water protection concepts; e.g., point-of-compliance (POC) and point-of-exposure (POE). The POC is a level surface that conforms to the down gradient boundary of the waste disposal area, intersecting with the uppermost aquifer. It was noted that the use of the term "point" was misleading. Likewise, the POE is that point where human contact occurs; e.g., a well that provides water for drinking or agricultural uses.

Mr. Konwinski mentioned that there are three options for compliance with the ground-water provision of the NRC regulations. They are:

1. Background (comparing measured concentrations to natural background levels)
2. Drinking Water Standards (referred to frequently as maximum contamination limits, or MCL's)
3. Alternate Concentration Limits (ACLs)

The first two options are relatively well understood. However, confusion surrounding the applicability and implementation of ACLs has led to the need for an explicit guidance document. Examples were discussed citing the limited number of constituents in the MCL category (uranium is not included) and unusual background situations (mill sites located in nonmineralized zones), which force the need to rely on an ACL. Mr. Konwinski noted that none of the 27 licensed mills rely, at present, on ACLs. Although only three licensees have applied for ACLs thus far, final publication of the ACL TP will probably result in increased ACL requests.

In response to a question regarding the Agreement-State implementation of these concepts, it was noted that the NRC staff performs periodic reviews of Agreement-State regulatory programs to make sure that there is comparability between NRC and Agreement-State ground-water, as well as other protection oversight.

The permanence of the location of the POC and POE over the 1000-year period was questioned. The Committee members and staff

discussed the roles of DOE and NRC in post-closure monitoring, custody and surveillance phase. DOE, or the State, takes title and custody of each of the sites and is responsible for post-closure monitoring to the extent that it is needed. This responsibility is in perpetuity. The licensee and DOE may negotiate for boundary line areas in the land transfer. DOE may not be willing to take more land than is necessary for its institutional care for a given site. This negotiation will influence where the POC/POE will be located for the perpetual care period. Questions were raised regarding the consistency of present POC/POE determinations in light of varying long-term changes in the surrounding environment.

Mr. Konwinski described the short-term responsibility that any license will have regarding the site. The license will not be terminated until the licensee has demonstrated the equilibrium conditions expected from any corrective action program. Monitoring well data will be used for this. Upon successful demonstration of remediation, the license is terminated and the title is transferred to the DOE, which assumes the long-term institutional care.

Mr. Konwinski noted that the ACL concept included consideration of ALARA. This is unique in the ground-water protection arena. It was pointed out that the term "potential" in the TP regarding the establishment of an ACL refers to spatial rather than temporal variation. The NRC staff agreed to examine this portion of the text in order to more clearly characterize the concept in the TP. Mr. Konwinski summarized the hazard assessment and corrective action reviews (19 factors) that the licensee must present to support any ACL request. Mr. Konwinski noted the site-specific nature of the ACL review process. In order to provide a uniform review, the guidance has to be generic; it is in the site-specific application that the fuller understanding is obtained. It was pointed out that the application of any ACL would still need to pass the criterion of protection of the public health, safety and the environment. Some Committee suggestions proved not to be acceptable because of the regulatory structure of the regulation (NRC and/or EPA) and EPA RCRA provisions, from which the ACL concept came. Dr. Steindler insisted that the leachate, as well as the contaminant plume needed to be characterized. He further complained of the lack of clarity in other areas of the TP, such as alerting the reader to chelation effects.

Later in the meeting, the Committee approved a report to Chairman Selin recommending that the technical position be issued as soon as possible.

V. LOUISIANA ENERGY SERVICES - PRIVATE URANIUM ENRICHMENT FACILITY (Open)

[Note: Mr. Giorgio N. Gnugnoli was the Designated Federal Official for this part of the meeting.]

Messrs. Howard Arnold and Peter LeRoy addressed the status of Louisiana Energy Services (LES) with respect to its license application to NRC for the construction and operation of a uranium enrichment plant. Mr. Eric Kraska, URENCO, also participated in the presentation. Mr. Arnold gave a general introduction of the LES partnership organization of general and limited partners, of which a European consortium (URENCO) and associated companies form a significant portion. The LES management committee is chaired by Mr. Richard Pryor of Duke Power.

Mr. Arnold described a chronology beginning with a memorandum of understanding between Louisiana Power and Light (LP&L) and the general partners that was signed in June 1989. He noted that the October 1990 passage of the Solar, Wind Waste and Geothermal Power Production Act placed enrichment facilities in a category separate from nuclear power plants, thereby eliminating the need for separate construction and operation licenses. Enrichment facilities are treated more like fuel cycle facilities under 10 CFR Parts 40 and 70. LES submitted a license application to NRC on January 31, 1991. On May 5, 1991, the NRC, by Commission Order, established the criteria for review of the license. An Atomic Safety and Licensing Board Panel (ASLBP) was established at that time; two prehearing conferences have been held. An intervenor -- Citizens Against Nuclear Trash (CANT) -- has filed contentions, which were allowed by the ASLBP. These include concerns about:

- ~~Emergency~~ Emergency planning
- NEPA costs
- Reasonableness of LES decommissioning funding plan
- Monitoring of sampling ports, process valves and flanges

The LES facility consists of 450 acres near Homer, Louisiana; it is designated the Claiborne Enrichment Center (CEC). Only 70 of the 450 acres will be improved and fenced. The facility consists of three modules, each containing two sets of seven cascades. Each cascade contains 1,000 centrifuges. The equipment will be shipped from Europe and assembled at the Louisiana plant. Mr. Arnold indicated that the CEC will not own the material being processed; CEC will provide only the enrichment service.

Messrs. Arnold and LeRoy pointed out the following considerations:

- The LES technology uses only two percent of the electricity needed in the gaseous diffusion technology.
- DOE diffusion plants serve 90 percent of the domestic needs, but many contracts will expire in 1995.
- This centrifugal enrichment process is done in subatmospheric conditions, in contrast to the diffusion process.
- The capacity of the plant is 0.5 million separative work units per year, which calibrates to 15 percent of the current national demand.
- Accident exposure limits are 10 mg of uranium inhaled and the hydrogen fluoride limit is expressed as:

$$25(30/T)^{0.5},$$

where T = Time of exposure in minutes. Mr. LeRoy referred the Committee to NUREG-1391 for more details.

- The reduced electricity needs and DOE capital improvement costs (for meeting new environmental regulations) for this type of enrichment process should make the LES facility competitive.

Mr. LeRoy addressed the waste aspects of the CEC. He indicated that wastes would exist in the three phases: liquid, gaseous and solid. Uncontaminated wastes such as rain run-off from parking lots and liquids from office building drains are directed to the holding pond. Effluent from potentially contaminated areas, such as the unit floor drains, will be directed to sampling tanks, followed by an evaporator. Noteworthy points regarding the waste handling aspect include:

- The administrative liquid release limits are set at five percent of the 10 CFR Part 20 limits, as of January 1994. Of the total liquid effluent (approximately 103 million gallons) less than 0.2 percent (approximately 200,000 gallons) would be potentially contaminated.
- Gaseous effluents, such as UF_6 , UO_2F_2 and HF, are vented to carbon and activated alumina filters. As in the case for liquid effluents, administrative limits are set at 5 percent of the 10 CFR Part 20 limits. The filters are packaged and transported to LLW disposal facilities. Other incidental solid wastes, e.g., from the solidification process, are treated in like manner.

- Hazardous wastes include solvents, coolants, lubricating oils, etc. Mixed waste results from sampling procedures, e.g., CCl_4 used to separate uranium in solutions. The maximum estimated mixed waste is approximately 750 gallons per year. The mixed waste is stored for a maximum of 90 days and shipped to a permitted treatment center in Oak Ridge, TN for incineration and eventual shipment of residues to an LLW facility.
- Finally, the depleted uranium hexafluoride tailings will be safely stored on-site until decommissioning; ultimately the tails will be converted to UF_4 and shipped to an LLW disposal facility. The annual production is estimated to be 5000 tons.
- Nebraska would be the host state for LLW generated in Louisiana.
- The CEC will monitor to ensure that contaminants will not impact ground-water resources; e.g., sample holding pond sludge, etc.

The Committee requested to be kept informed on the progress of the license application.

VI. STATUS REPORT ON NEW YORK'S CHALLENGE TO THE LLW RADIOACTIVE POLICY AMENDMENTS ACT OF 1985 (Open)

[Note: Mr. Howard J. Larson was the Designated Federal Official for this portion of the meeting].

Mr. Larson briefed the Committee on the status of the New York State challenge to the constitutionality of the Low-Level Radioactive Waste Policy Amendments Act of 1985. He noted that on March 30, 1992, the U. S. Supreme Court heard oral arguments by both sides involved with the issue. The principal significance of this case is that it may impact on the current LLW disposal siting activities by various host states and compacts.

New York State takes the position that the "take title" provision of the Act exceeds the limits imposed on federal action by the Constitution, an assertion that is backed by both Allegheny and Cortland Counties. During the hearing on March 30, 1992, the U.S. Department of Justice (backed by an "amicus" brief by the State of Washington) and the New York State Deputy Attorney General presented their briefs in the half hour timespan allotted to each.

The four of the nine Supreme Court Justices, led by Justice O'Connor, who orally participated in the hearing, were most intense in their questioning and appeared to side with the New York State's

constitutionality argument. However, experienced "watchers" of the Supreme Court were quick to point out that it is almost impossible to predict the outcome of hearings such as this one.

It is anticipated that the Court will hand down its judgment prior to their summer recess. This briefing was for information only. No action was taken by the Committee.

VII. MEETING WITH THE NRC COMMISSIONERS (Open)

[Note: Mr. Raymond F. Fraley was the Designated Federal Official for this part of the meeting.]

In preparation for the meeting, the Committee reviewed the areas of interest to be discussed with the Commissioners. The Committee traveled to the One White Flint North Building, Rockville, Maryland, on Friday, April 24, 1992.

The Committee met with the NRC Commissioners to discuss items of mutual interest, including:

- The feasibility of a systems analysis approach to the transportation, interim storage, and final disposal of HLW
- The NRC staff technical position on "The Identification of Fault Displacement and Seismic Hazards at a Geologic Repository"
- The Standard Review Plan for the review of a license application for an LLW facility (NUREG-1200), dated January 23, 1992
- The current status of the proposed rulemaking on EPA high-level waste standards, dated February 25, 1992

The meeting with the Commissioners began at 1:30 p.m. and was adjourned by Chairman Selin at 2:30 p.m.; upon which, the Committee returned to the Phillips Building.

[According to Staff Requirements Memorandum to Mr. William C. Parler, General Counsel, from Mr. Samuel J. Chilk, Secretary, dated June 9, 1989, the Office of the Secretary provides a transcript to the ACNW as the record for this part of the meeting. The transcript is attached as Appendix VI.]

VIII. EXECUTIVE SESSION (Open)

A. Reports and Memorandum

Comprehensive Systems Analysis of the High-Level Radioactive Waste Management and Disposal Program (Report to Chairman Selin, dated May 1, 1992)

Proposed Expedited Rulemaking: Procedures and Criteria for On-Site Storage of Low-Level Radioactive Waste (Report to Chairman Selin, dated April 30, 1992)

Staff Technical Position on Alternate Concentration Limits for Title II Uranium Mills (Report to Chairman Selin, dated April 30, 1992)

Program Plan for the Advisory Committee on Nuclear Waste (Report to Chairman Selin, dated May 1, 1992)

Review of NRC High-Level Radioactive Waste Research Program Plan (Draft NUREG-1406) (Memorandum to James M. Taylor, Executive Director for Operations, dated May 1, 1992)

B. Systems Analysis Approach to Reviewing the Overall High-Level Waste (HLW) Program

The Committee completed an initial report on the feasibility of applying a systems approach to the analysis of the overall high-level waste program, including the short and mid-range technical milestones. The Committee noted that the identification by the Commission of the need for such an analysis had, by itself, served as a significant stimulus for increased attention to this topic. The Committee concluded that on-going activities of the DOE and NRC made the initiation of such a study premature at this time. The Committee suggested that the better course of action is to await the results of the on-going work. The Committee will carefully monitor developments in this field.

During the meeting with the Commission, Chairman Selin requested that the Committee prepare a top down functional diagram that identifies the elements the Committee believes should be included in a full systems analysis. Chairman Selin also requested that the Committee provide the Commission with its views as to those portions of the HLW program that are being, and those which are clearly not being properly addressed. Of particular interest would be the identification of any major gaps in the programs. The Committee agreed to

schedule time during the next few meetings to address this request.

C. Review of the NRC High-Level Radioactive Waste Research Program Plan (Draft NUREG-1406)

The Committee approved a report to James M. Taylor, Executive Director for Operations, recommending a number of ways in which NRC HLW research program plan described in draft NUREG-1406 could be improved. The Committee stands ready to review the revised Research Plan when completed.

D. Four Month Program Plan for the Advisory Committee on Nuclear Waste

The Committee approved a report to Chairman Selin that provides its plan of anticipated Committee activities for the four-month period May - August 1992.

E. Report on Visit with Mr. Edward Jordan, Director, AEOD

Dr. Moeller reported on his meeting with Mr. Jordan to discuss the possible creation of a set of performance indicators for assessing the management and disposal of low-level waste. During the meeting, Mr. Jordan mentioned an LLW database maintained by the U.S. Department of Energy. [Dr. Moeller subsequently contacted DOE officials and they agreed to provide background information on this database.]

F. ACNW Future Activities

The Committee agreed to defer the 46th ACNW meeting from August 13-14, 1992, to September 24-25, 1992.

The members discussed the agenda for the site visit and the 44th ACNW meeting, tentatively scheduled to be held on June 23-25, 1992, and to include site visits to various waste facilities in Richland, Washington. The ACNW staff will confirm the meeting dates and agenda with representatives of the DOE and Pacific Northwest Laboratories.

The Committee requested that Dr. David Brown, Connecticut Department of Health, be invited to brief the Committee on the status of Connecticut's development of an LLW disposal facility site.

The Committee discussed an upcoming meeting of the Science Advisory Board, U.S. Environmental Protection Agency, that will address the release limits for carbon-14. Dr. Moeller requested that the ACNW staff send a copy of the carbon-14 workshop transcript and a list of candidate consultants to Ms. Kathleen Conway, EPA. Dr. Pomeroy suggested that an ACNW staff member attend the Science Advisory Board meeting.

The Committee approved the papers to be given by Dr. Moeller at the 24th Annual Meeting of the Conference of Radiation Control Program Directors being held on May 17-21, 1992, and the Summer National Meeting of the American Institute of Chemical Engineers being held on August 9-12, 1992.

G. Future Meeting Agenda

Appendix III summarizes the proposed items endorsed by the Committee for the 43rd ACNW Meeting, May 28-29, 1992, and future Working Group meetings. This list includes items proposed by the Commissioners and NRC staff as well as ACNW members.

The meeting was adjourned at 4:30 p.m., Friday, April 24, 1992.