



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

MAY 4 1983

MEMORANDUM FOR: William J. Dircks
Executive Director for Operations

FROM: Victor Stello, Jr., Chairman
Committee to Review Generic Requirements

SUBJECT: MINUTES OF CRGR MEETING NUMBER 34

The Committee to Review Generic Requirements met on Wednesday, April 20, 1983, from 1:00 to 7:00 p.m.

1. R. Browning (NMSS) briefed the CRGR on the NMSS Low-Level Waste Licensing Branch Technical Positions (TPs) concerning Waste Classification and Form.

On December 27, 1982, NRC amended its regulations to provide specific requirements for licensing facilities for the land disposal of low-level radioactive waste. The majority of these requirements are contained in a new Part 61 to Title 10 of the Code of Federal Regulations, entitled "Licensing Requirements for Land Disposal of Radioactive Waste." Some additional requirements directed primarily at waste generators and handlers, including certification and use of shipping manifests, were concurrently published as a new Section 20.311 of Part 20 ("Standards for Protection Against Radiation"). Other minor modifications, most of a procedural or administrative nature, were also made to other parts of NRC's regulations. The effective date of 10 CFR Part 20.311 is December 27, 1983, while the effective date of 10 CFR Part 61 and all other amendments is January 26, 1983. Section 20.311 requires that any licensee who transfers radioactive waste to a land disposal facility or to a licensed waste collector or processor must classify the waste according to Section 61.55. This section defines radioactive waste suitable for disposal as falling into one of three classes (Class A, Class B or Class C), and waste is determined to fall into one of the classes by comparison to limiting concentrations of some particular listed radionuclides. Class B and C wastes are subject to waste stability requirements which are set forth in Section 61.56 of the rule. In addition, Section 20.311 requires that waste generators record on shipment manifests a description of the transferred waste as well as a certification that the waste is properly classified and that the manifest is correct. Also licensees must conduct a quality control program to assure compliance with the waste classification and waste stability requirements.

The staff recognizes that the new requirements can result in some modifications to existing licensee waste management practices, and furthermore believes that it will be useful to licensees to begin planning for implementation of the new requirements in advance of the December 27, 1983 effective date. At this time, the staff is preparing Regulatory Guides on both waste classification and waste form. To provide interim guidance to licensees, the staff has prepared TPs on waste classification and waste form. The Waste Classification Technical Position (WCTP) describes overall procedures acceptable to the staff which may be used by licensees to determine the presence and concentrations of the radionuclides listed in Section 61.55, and thereby to classify waste for near-surface disposal. The WCTP also provides guidance on the types of information that should be included in manifests accompanying waste shipments to near-surface disposal facilities. The Waste Form Technical Position (WFTP) provides guidance to waste generators on test methods and criteria acceptable to the NRC staff for implementing the 10 CFR Part 61 waste form requirements. The WFTP identifies an acceptable approach for demonstrating compliance with the 10 CFR Part 61 waste structural stability criteria. It also includes guidance on processing of waste into an acceptable stable form, designing acceptable high-integrity containers, packaging of cartridge filters, and minimizing radiation effects on organic ion-exchange resins.

Draft versions of both TPs have previously been made available to interested members of the public. Comments received on these drafts have been considered during development of the final TPs. The staff believes that the Waste Form and Classification TPs provide guidance for implementing the general requirements contained in 10 CFR Part 61, and therefore do not create impacts on licensees or the NRC. The TPs define an objective set of procedural steps that satisfy the requirements in 10 CFR Part 61 without affecting the rule's flexibility to accommodate individual licensee programs.

The CRGR offered the following suggestions concerning the TPs:

- a. The final Technical Positions should soon be forwarded to ACRS and thereafter published for further public comment. In this regard, a special effort should be made to obtain comments from nonpower reactor licensees.
- b. A letter, which is coordinated with affected program offices, should accompany the Technical Positions. This letter should indicate that further public comment is welcomed concerning practical difficulties with implementing 10 CFR Part 61 and using the TPs. The letter should discuss current NRC waste policy and future staff plans. Also the letter should mention that high-integrity containers exist that are acceptable to NRC.

- c. In developing and implementing waste requirements and guidance, the staff should closely coordinate activities with State and local Governments to minimize adverse regulatory impacts on industry and the national waste program.
2. J. Partlow (IE) the acting Chairman of the Committee to Review Safeguards Requirements at Power Reactors briefed the CRGR concerning the Committee's findings and recommendations.

On August 16, 1982, the NRC Chairman forwarded a memorandum to the EDO concerning the subject of Safeguards Requirements at Power Reactors. The following observations were included in the memorandum:

"Commissioner Gilinsky recently visited San Onofre and observed that the security at the site is encumbering to the point where he wonders if it may impact safety. During my visits to Diablo Canyon and to LaSalle, I also have observed security is encumbering and have seen indications that it may impact safety." In this regard, the NRC Chairman requested the EDO to "...direct the Staff to conduct a re-analysis of plants. Their review should determine (1) what security requirements now in place may adversely impact safety of plants, and how; (2) alternative protection measures that would lessen possible adverse impacts on safety while, as a goal, not decreasing overall plant security; and (3) safety and safeguards requirements which may be redundant (e.g., access logs)."

In a memorandum dated October 18, 1982, the EDO appointed the Committee to Review Safeguards at Power Reactors (CRSPR) to respond to the NRC Chairman's request. During visits to five power reactor sites and more than a dozen days of meetings over a period of four months, the Committee observed plant operating conditions and obtained views from about 100 persons representing 16 nuclear utilities and industry organizations. They also interviewed about 40 NRC employees, including Resident Inspectors, and members of the Regional and Headquarters staffs. The Committee's findings and recommendations are included in a document titled, Report to the NRC Office of Nuclear Material Safety and Safeguards, dated February 28, 1983.

The Committee reported that overall they did not identify any clear operational safety problems that were caused by NRC regulations. However, they did find conflicts between plant operations and safeguards that, due to their impact during normal and off-normal plant status, could adversely affect plant and personnel safety. These conflicts are believed to result from the licensees' implementation of NRC safeguards requirements. The following comments paraphrased from Appendix C of the report recount some of the more significant findings regarding safety-safeguards conflicts:

- a. The Chairman of the Nuclear Review Board at one plant felt that security significantly impacted safety and that security worked in the opposite direction of safety. (p. C15)

- b. A General Manager considered the new access control program the most significant safety-security problem at his plant. (p. C7)
- c. Mid-level managers at a plant believed that multiple access through multiple doors is the greatest security impediment to the operations staff. They indicated that operator and maintenance personnel are impacted by access impediments and therefore routine surveillance, maintenance backlog and plant operations are impacted. (p. C6).
- d. A station manager indicated that the most serious safety-security interaction occurs during off-normal operations when the card key access control system fails. This can inhibit operator access to systems and thereby affect safety, especially in a situation such as loss of offsite power when operators must perform many manual actions quickly. The shift supervisor agreed, noting that they would prefer to have internal doors fail open in the event of computer failure. (p. C9)
- e. A general manager thought that security officers would impede access in an emergency. (p. C8)
- f. Relative to personnel safety, a group of operators and health physics technicians were concerned about survivability in the area between an elevator and a vital access area door if the fire suppression system should be activated coincident with failure of the security computer. (p. C9)
- g. An industry representative recounted that during a flood, which occurred in a high pressure safety injection room, the best evacuation route would have been through another vital area to which employees were denied access. Consequently, although the employees did succeed in evacuating the area the same way they came in, they were forced to fight their way through chest deep water. (p. C35)
- h. An industry spokesman believed that employee radiation doses can be adversely affected by compartmentalization and access controls. (p. C12)

The Committee indicated that most conflicts are attributable to the lack of, or ineffective balancing of plant operations and security to optimize overall plant safety. Also, relative to overall plant safety, concerns were expressed about the balance of fire protection, emergency response, health physics, administrative controls and other activities that interact with plant operations. Regarding safeguards, the Committee found that, in general, NRC and licensee safeguards guidance, planning, reviews and oversight do not evaluate plant and personnel safety impacts resulting from implementation of safeguards requirements

at plants. Moreover, the Committee found that NRC regulations do not specifically require such safety impact evaluations, and that NRC rules do not specifically require operators to have prompt access to essential equipment in the plant.

Chapter IV of the report contains the Committee's recommendations. In formulating these recommendations, the Committee considered the facts and opinions that it obtained first hand from field visits and interviews with licensee personnel, industry representatives and NRC staff. The Committee also attempted to identify and balance trade-offs in safeguards program elements such as, personnel trustworthiness and vital area configuration and control. However, the principal aim of the Committee's recommendations is to reduce the potential impact of safeguards on safety while preserving the current overall level of safeguards at plants. The recommendations are synopsized as follows:

- a. Require evaluation and balancing of plant operations and safeguards to optimize plant and personnel safety.
- b. Require prompt access of key personnel to equipment in plant protected areas, especially during emergencies.
- c. Allow trade-offs between safeguards program elements such as protected areas, trustworthiness and compensatory measures to reduce safeguards impediments.
- d. Assure that implementation of plant safeguards requirements optimizes plant and personnel safety, especially during emergencies.

The CRGR concluded that, although the interviewees' comments in Appendix C of the Report are not unanimous, they clearly indicate that there are plant operations and safeguards conflicts that could adversely affect plant and personnel safety. The primary safety concerns are (1) delayed access of key operating personnel to equipment in protected areas during normal and off-normal conditions and (2) delayed ingress in to and egress from protected areas in situations that could increase occupational safety hazards. Since new requirements proposed by the staff to address the Committee's findings and recommendations are to be forwarded for CRGR consideration, the CRGR did not reach a conclusion concerning the specific recommendations in the report.

The CRGR recommends the following:

- a. The staff should proceed to expeditiously prepare rule changes implementing the Committee's findings and recommendations.
- b. The Committee's findings and recommendations should be communicated expeditiously to nuclear power plant licensees as an information notice.

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- c. The Committee's report should be forwarded to NRC project managers, reviewers and inspectors concerned with nuclear power reactors.
3. Mal Ernst (RES) briefed the Committee on the status of the proposed ATWS rule along with possible modifications being considered as a result of precursor experiences at Salem on February 22 and 25, 1983. The proposed ATWS rule and the cost benefit bases offered in support of its formulation were last described to CRGR in a briefing in January 1983.

Based on the current views of the Salem Generic Implications Task Force headed by R. Mattson, certain modifications to the proposed ATWS rule may be recommended such as additional diversity requirements for interrupting power to the control rod drives for Westinghouse designs and a reliability assurance program specific to the reactor trip system. R. Mattson briefly discussed the status of his Task Force report (NUREG-1000, Draft) regarding the generic implications from Salem. The CRGR agreed to hold a subsequent meeting for consideration of the Task Force Report and its findings.

Although the CRGR reached no specific conclusions about the proposed ATWS rule and its contemplated modifications, it suggested that the staff consider the following:

- a. The adequacy of existing guidance and rules (e.g., General Design Criteria and Appendix B of 10 CFR 50) in deciding the need to impose additional rule requirements that focus solely on a reliability assurance program for the reactor protection system.
 - b. Potential conditions or features at some plants that might obviate the need for, or permit an exception to, a full implementation of the rule requirements. For example, certain plants could have a very high tolerance for an ATWS event or may have reached an age where the benefits of full implementation of the ATWS rule might not justify the costs involved.
4. The Committee reviewed a proposed IE Bulletin entitled, "ASME Nuclear Code Pumps and Spare Parts Manufactured by the Hayward Tyler Pump Company." R. Baer and A. Dromerick of IE briefed the Committee on the background of this matter and the proposed actions to be taken by affected CP or OL holders. These actions are intended to resolve quality assurance questions and uncertainties that exist regarding the operability and performance of pumps (and spare parts) supplied by the Hayward Tyler Pump Company (HTPC). IE investigations concerning allegations about HTPC ASME Code stamped pumps (and spare pumps parts) supplied by HTPC revealed a significant breakdown in the HTPC quality assurance program for products provided by HTPC about 1981 and earlier. Based on a preliminary survey, it is IE's belief that this matter largely affects nuclear units that have not yet received an operating license from the NRC.

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The Committee recommended issuance of the final bulletin to resolve the concerns pertaining to the quality and the performance of HTPC-supplied pumps and spare parts after IE has considered the following suggestions:

- a. IE with ELD assistance should assure that the proposed bulletin does not relieve HTPC from its product liabilities or the affected CP and OL holders from their quality assurance responsibilities.
- b. IE should review the need for and extent to which they will use the detailed information being sought, in particular those details concerning inservice inspection plans and requirements and the details of ASME hydrotesting.
- c. IE should review the scope of the proposed bulletin to assure an appropriate focus on those ASME Code stamped pumps and spare parts used, or planned for use, in safety-related systems.
- d. IE should reexamine proposed action item #6 to assure that the disposition of affected HTPC pumps and spare pump parts is tracked by those CP holders who have cancelled, or in the future cancel, their units prior to completion.

Original Signed by
V. Stello

Victor Stello, Jr., Chairman
Committee to Review Generic Requirements

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