UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SECRETARY

May 25, 2000

COMMISSION VOTING RECORD

DECISION ITEM: SECY-00-0080

TITLE: FINAL RULE: "ELIMINATION OF THE REQUIREMENT FOR NONCOMBUSTIBLE FIRE BARRIER PENETRATION SEAL MATERIALS AND OTHER MINOR CHANGES" (10 CFR PART 50)

The Commission (with all Commissioners agreeing, but Commissioner Merrifield disapproving issuance of the Federal Register Notice until certain revisions are made) approved the subject paper as recorded in the Affirmation Session Staff Requirements Memorandum (SRM) of May 25, 2000.

This Record contains a summary of voting on this matter together with the individual vote sheets, views and comments of the Commission.

Annette L. Vietti-Cook
Secretary of the Commission

Attachments:
1. Voting Summary
2. Commissioner Vote Sheets

cc: Chairman Meserve
Commissioner Dicus
Commissioner Diaz
Commissioner McGaffigan
Commissioner Merrifield
OGC
EDO
PDR

VOTING SUMMARY - SECY-00-0080

RECORDED VOTES

	APRVD	DISAPRVD	ABSTAIN	NOT PARTICIP	COMMENTS	DATE
CHRM. MESERVE	X				X	5/15/00
COMR. DICUS	X					5/6/00
COMR. DIAZ	X				X	5/10/00
COMR. McGAFFIGAN	X				X	4/27/00
COMR. MERRIFIELD	X	X			X	5/1/00

COMMENT RESOLUTION

In their vote sheets, all Commissioners approved the staff's recommendation, but Commissioner Merrifield disapproved issuance of the Federal Register Notice until certain revisions are made. Most Commissioners provided additional comments. Subsequently, the comments of the Commission were incorporated into the guidance to staff as reflected in the Affirmation Session SRM issued on May 25, 2000.

AFFIRMATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook
Secretary of the Commission

FROM: CHAIRMAN MESERVE

SUBJECT: SECY-00-0080 - FINAL RULE: "ELIMINATION OF THE REQUIREMENT FOR NONCOMBUSTIBLE FIRE BARRIER PENETRATION SEAL MATERIALS AND OTHER MINOR CHANGES" (10 CFR PART 50) (WITS 199800128)

Approved X/with comments Disapproved _____ Abstain _____

Not Participating _____ Request Discussion _____

COMMENTS:

1. I approve the staff's recommendation to publish the final rule in the Federal Register. However, I concur in Commissioner McGaffigans's comment regarding the revision of the language in the notice, letters, and press release to reflect the safety significance of the action appropriately. I attach a variety of other minor edits of the notice.

2. I approve certification as required by the Regulatory Flexibility Act..

SIGNATURE

May 15, 2000
DATE

Entered on "STARS" Yes ✓ No ____

Supplement 1, is also available through the Technical Reports area of the NRC Reference Library accessed through the NRC Website: http://www.nrc.gov/NRC/NUREGS/index.html.

II. Analysis of Public Comments and Staff Response

The proposed rule was published for public comment in the *Federal Register* on August 18, 1999 (64 FR 44860). The comment period ended on November 1, 1999. The NRC received eight comment letters. Six commenters supported the proposed amendment; two commenters objected to the changes. This section discusses the comments received, how the NRC staff was able to incorporate some comments into the final rule and, if not, why a comment was not accepted. This section addresses all comments but specific commenters are not identified.

A commenter suggested that footnote 1 to Section I, "Introduction and Scope," of Appendix R to 10 CFR Part 50, be deleted because its wording is identical to footnote 4 to § 50. 48(b). This commenter stated that the basis for deleting footnote 4 to § 50.48 also applies to footnote 1 to Section I of Appendix R. The NRC agrees with this comment and footnote1 to Section I of Appendix R is deleted.

One of the commenters who endorsed the proposed rule stated that, in particular, (1) there are no reports of fire that have challenged the ability of fire-rated penetration seals to confine a fire; (2) numerous fire endurance tests have confirmed the fire-resistive capabilities of the penetration seal materials, designs, and configurations installed in nuclear power plants; and (3) if penetration seals are properly designed, installed, and maintained, there is reasonable assurance that they will provide the fire-resistive integrity of the fire barriers in which they are installed, and confine a fire to its area of origin.

A commenter objected to the rule change, but did not identify any specific technical or safety information for NRC staff consideration. Therefore, the comment did not result in changes to the rule.

One commenter provided multiple comments in opposition to the proposed rule. Each of these comments are discussed below. None of the comments resulted in any changes from the proposed rule.

1. Comment. The non-combustibility requirement for fire seals is key in providing a high level of confidence in the operability determination for a fire seal.

Response. The Commission disagrees. 10 CFR Part 50, Appendix A, General Design Criteria (GDC), Criterion 3 - Fire Protection states: "Noncombustible and heat resistant materials shall be used wherever practical throughout the unit...." Thus, the Commission's most fundamental requirements with respect to fire protection do not mandate the exclusive use of noncombustible materials. The Commission's implementing requirements on fire protection in 10 CFR 50.48 and 10 CFR Part 50, Appendix R, require the use of fire barriers that meet 1-hour or 3-hour fire ratings; while the current regulation requires the use of noncombustible materials, it is also clear that the 1-hour and 3-hour ratings can be achieved with the use of properly tested, rated and qualified material that is "combustible." Penetration seals used as a part of the rated fire barrier assembly are required to meet the acceptance criteria of Nationally

3. Comment. The NRC's technical assessment does not offer any evaluation or analysis regarding the contribution to severe accident risk evolving from a quick burn-through of fire seals resulting from the use of combustible penetration sealant material and other generic problems widely experienced with the Dow Corning product.

Response. As stated above, silicone-based penetration seals materials are relatively difficult to ignite and ablate slowly at a rate of about 3 inches per hour when exposed to the Standard Time/Temperature fire curve of ASTM E-119. The nature of the silicone-based material and the limited air supply in penetration seals preclude a "quick burn through," and an analysis of the contribution to severe accident risk evolving from a quick burn-through of fire seals resulting from the use of combustible penetration sealant material is not relevant.

Fire barrier penetration seals are not considered in the assessment of postulated fire scenarios that are the major contributors to core damage for most plants, because the major contributors are those in which the redundant divisions of post-fire safe-shutdown components and systems are located in the same fire area. Scenarios involving the spread of fire from one area of a plant to another and evolving to core damage (scenarios that could potentially involve penetration seals) are also of low frequency. It is the NRC's judgement that considering the probability of failure of a plant's passive fire barrier penetration seals would not significantly alter the overall contribution of fire risk to the plant's total calculated core damage frequency.

4. Comment. Given the combustibility of the silicone material, the industry has also widely documented improperly installed seals (less than sufficient sealant material, varying size voids created by problematic installation procedures and cracks). By providing for the acceptance of combustible penetration seals, the NRC is reducing the level of defense-in-depth without fully analyzing the risks associated with accelerated burn-through of seals from the combination of these widely documented factors.

Response. The NRC disagrees with the commenter's implication that there are widespread and numerous instances of improperly-installed silicone fire barrier seals. First, while plant-specific deficiencies of fire barrier penetration seals have been and will likely continue to be found, they have been isolated and not tied to any installation problems generic to this material. Installation deficiencies that have been identified to date have been or are in the process of being corrected by licensees.

Second, the NRC disagrees with the commenter's apparent argument that combustible fire seals that meet the NRC's 1- and 3-hour fire rating significantly decreases the safety of a nuclear power plant as compared to fire seals which are "noncombustible" as defined by ASTM E-136. Fire seals are one passive sub-component of fire protection provided by the defense-in-depth concept, the others being fire prevention, detection, suppression and plant-design features. As discussed in the response to Comment 2, the NRC also believes that it is highly unlikely that fire barriers in a nuclear power plant would be exposed to fires of sufficient temperature and duration such that the silicone fire seals that fail before their rated 1- or 3-hours. Thus, consideration of the probability of failure of properly-qualified penetration seals that meet the NRC's requirements for 1- or 3-hour protection would not significantly alter the overall contribution of fire risk to the plant's total calculated core damage frequency. Furthermore, the practical benefits of the silicone-based penetration seal materials (e.g., easy installation, compatibility around safety-related cables, and reasonable cost) far outweigh

concerns regarding material combustibility. Thus, the NRC concludes that properly qualified fire barriers will provide reasonable assurance of adequate protection to public health and safety.

5. Comment. The NRC does not offer any analysis and evaluation of how a combustible penetration sealant could also harbor a fire as it moves through a penetration seal. The fire could leave a protective barrier of insulating ash in its trail making it difficult to identify, locate and extinguish. Accordingly, it is inappropriate to move forward with this rule change without analysis on the quick burn-through of seals under the above stated conditions.

Response. As previously stated in the responses to Comments 3 and 4, the silicone foam will ablate when exposed to the thermal insult of a fire. The properly designed, tested, and installed penetration seals will stop the fire for the rated time period, the same as the rated-fire wall/ceiling/floor assembly in which it is installed. During this time, automatic and/or manual fire suppression activities will be used to control and extinguish the fire. After the fire is extinguished, standard fire fighting procedures would require that the fire brigade perform the "overhaul" firefighting function of ensuring all combustibles have been extinguished. During this firefighting, if the fire brigade were to identify ash in a penetration seal, procedures would require that the fire brigade take appropriate action either to identify whether the seal is continuing to combust (by removal), or to promptly implement extinguishing activities. This is a standard firefighting operation to check for any possible fire extension. Therefore, the NRC concludes that it is not inordinately difficult to identify and extinguish fires in combustible silicone fire barrier penetration seals.

6. Comment. The basic premise of the NRC rule change fails to address industry experience in properly bounding fire tests for the myriad of fire seal configurations deployed throughout nuclear power stations. In one case, the licensee improperly used a single test to bound 2000 fire barrier penetration seals in many different fire seal configurations. This omission does not lend to the credibility of the agency's argument. Such evidence documents improperly tested seal configurations.

Response. The Browns Ferry fire of March 22, 1975, demonstrated the weakness in penetration seals to the nuclear and general building industry. After the fire, specific testing methods were developed by nationally recognized testing organizations to test and qualify penetration seals. The American Society for Testing and Materials (ASTM) first issued their standard E-814, "Standard Test Method for Fire Tests of Through-Penetration Fire Stops," in 1981. The Institute of Electrical and Electronics Engineers (IEEE) first issued their standard IEEE 634, "Standard Cable Penetration Fire Stop Qualification Test," in 1978. In regard to the commenter's assertions regarding "a single test to bound 2000 ," the first penetration seal fire tests were often used to bound numerous configurations. This issue of bounding fire tests was addressed in Information Notice (IN) 88-04, "Inadequate qualification and documentation of fire barrier penetration seals," dated February 5, 1988. Since that time, decades of experience with the test standards by the nuclear and general building industries have provided adequate assurance that they are appropriate for qualifying fire barrier penetration seals. Hundreds of qualification-type fire endurance tests of a wide variety of penetration seal designs and materials have been performed by material manufacturers, installation contractors, test laboratories, research organizations, licensee, and others. Underwriters Laboratories, Inc. (UL) alone publishes a complete volume of Listed and Classified rated through-penetration firestop systems. Additionally, the NRC staff has observed fire endurance tests of fire barrier penetration seals, and reviewed fire test reports during licensing reviews and inspections. On

the basis of these eyewitness accounts and reviews, the NRC staff has concluded that fire endurance tests have established the fire-resistive capabilities of numerous penetration seal materials, designs, and configurations as installed in the nuclear power plants. The NRC staff provided guidance on the bounding of plant-installed configurations with tested configurations in Generic Letter 86-10, "Implementation of Fire Protection Requirements," dated April 24, 1986. Subsequently, the industry used this guidance ~~and inspected their~~ plants' designs. As licensees identified potential penetration seal issues, the staff informed the industry through numerous INs, including: (1) IN 88-04, and Supplement 1, dated August 9, 1988; (2) IN 88-56, "Potential Problems with Silicone Foam Fire Barrier Penetration Seals," dated August 4, 1988; (3) IN 94-28, "Potential Problems with Fire-Barrier Penetration Seals," dated April 5, 1994; and (4) IN 97-70, "Potential Problems with Fire Barrier Penetration Seals," dated September 19, 1997. These potential problems were brought forward by licensee inspections and NRC staff observed weaknesses discovered during some of its inspections.

7. Comment. The basic premise of the NRC rule change fails to take into account ongoing industry-wide discovery of insufficient material fill, large voids and cracking in seals as the result of the problematic installation of the silicone foam penetration seal material in the field. In numerous cases, licensees have reported universal fire seal installation problems involving the silicone foam material. Such evidence documents improperly installed silicone-based penetration seals. The NRC also fails to take into account that licensees are using the same problematic material to replace inoperable fire seals. Given these recurring and what appears to be ongoing failures, the NRC does not offer any method for determining how it is achieving properly tested, configured, installed and maintained silicone-based penetration seals. Given the apparent lack of reasonable assurance that fire barrier seals are adequately inspected to determine that they have been properly tested, configured, installed and maintained, it is inappropriate to reduce the fire protection standard by removing the non-combustibility standard. Similarly, it is inappropriate to maintain a policy of enforcement discretion for the same noncombustibility standard.

Response. The NRC disagrees with the commenter's implicit argument that historical problems with installation of silicone fire barrier penetration seals have not been rectified, ~~such~~ and that the Appendix R non-combustibility requirement should be retained.

The NRC disagrees with the commenter's assertion that improper installation and maintenance of fire barrier penetration seals is a reasonable basis for retaining the current noncombustibility requirement. First, proper installation of fire barrier penetration seals is necessary in order for the seals to perform their intended safety function, *regardless of whether the seals are made of combustible or noncombustible materials.* Licensees must have appropriate procedures for installation of Appendix R-required fire barrier penetration seals and implement corrective action if improperly installed seals are discovered, regardless of the combustibility of the fire barrier penetration seal material. Thus, while improperly installed fire barrier penetration seals raise valid concerns with respect to their functionality, these concerns are not relevant to the issue of the need for a noncombustibility requirement.

Second, the NRC disagrees with the commenter's implicit argument that there are widespread problems with the installation, inspection, and maintenance of fire barrier penetration seals that remain uncorrected. While there have been historical problems with the installation of silicone fire barrier penetration seals, the NRC has taken a series of regulatory actions in response to instances of improper fire barrier penetration seal installation. These actions

The ability of a particular penetration seal to achieve its intended design function (i.e., to contain a fire), as determined by a fire endurance test conducted in accordance with an industry standard, is the foremost design consideration. In NUREG-1552 and NUREG-1552, Supplement 1, the NRC concluded:

(1) There are no reports of fires where fire-rated penetration seals failed to confine a fire at a nuclear power plant;

(2) A large body of fire endurance tests has confirmed the fire-resistive capabilities of the penetration seal materials, designs, and configurations installed in nuclear power plants; and

(3) If penetration seals are properly designed, tested, installed, inspected, and maintained, there is reasonable assurance that they will provide the fire resistance of the tested design maintain the fire-resistive integrity of the fire barriers in which they are installed, and confine a fire to its area of origin.

The NRC evaluated silicone-based penetration seal materials that are combustible and are the most widely used materials for penetration seals throughout the commercial nuclear power industry. In presenting the results of its evaluation in NUREG-1552 and in NUREG-1552, Supplement 1, the NRC concluded:

(1) Properly designed, tested, installed, and maintained silicone-based penetration seals are not credible fire hazards;

(2) Despite the fact that a silicone-based penetration seal could contribute some fuel to a fire, its relative contribution to overall fire severity would be negligible;

(3) Qualified silicone-based fire barrier penetration seals can accomplish their intended design function; and

(4) The benefits of the silicone-based penetration seal materials outweigh any potential concerns regarding material combustibility.

2. In § 50.48, footnotes 3 and 4 are removed.

Footnote 3 to § 50.48(a) stated that basic fire protection guidance for nuclear power plants is contained in two NRC documents: Branch Technical Position (BTP) Auxiliary Power Conversion System Branch (APCSB) 9.5-1, "Guidelines for Fire Protection for Nuclear Power Plants" (for new plants docketed after July 1, 1976), dated May 1976, and Appendix A to BTP APCSB 9,5-1, "Guidelines for Fire Protection for Nuclear Power Plants Docketed Prior to July 1, 1976" (for plants that were operating or in various stages of design or construction before July 1, 1976), dated August 23, 1976. Footnote 3 also referred to footnote 4 to § 50.48(b), that lists four additional documents related to permissible alternatives to satisfy Appendix A to BTP APCSB 9.5-1. The documents listed in footnote 4 were: "Supplementary Guidance on Information Needed for Fire Protection Evaluation," dated October 21, 1976; "Sample Technical Specification," dated May 12, 1977; "Nuclear Plant Fire Protection Functional Responsibilities, Administrative Control and Quality Assurance," dated

June 14, 1997; and "Manpower Requirements for Operating Reactors," dated May 11, 1978. The six documents that were referred to in footnotes 3 and 4 no longer reflect accurately the current NRC guidance.

Footnotes 3 and 4 were not intended to be rulemaking requirements but rather statements of fact. The footnotes reflected the Commission's approval of the NRC staff's practice, as reflected in Branch Technical Position (BTP) APCSB 9.5-1 and in its Appendix A, that the date of the docketing of the construction permit would determine the NRC staff's review criteria for verifying compliance with General Design Criterion (GDC) 3, and that compliance with the guidance of BTP APCSB 9.5-1 or its Appendix A and the other listed guidance documents would establish compliance with GDC 3. The NRC has completed its review of the fire protection programs at all operating reactors and has issued license conditions that establish the licensing bases for each reactor. The licensing bases may include the documents listed in footnotes 3 and 4, but typically include a number of other guidance documents that the NRC issued after it promulgated § 50.48. In addition, the licensees included the fire protection licensing basis for each reactor in the Updated Final Safety Analysis Report for the facility. Footnotes 3 and 4 have served their purpose and are not needed by the NRC or the licensees to maintain the fire protection licensing bases for the reactors.

The change does not affect or change the licensing basis for any plant. However, it makes 10 CFR 50.48 consistent with other reactor regulations that do not identify guidance documents. It also eliminates the need to update the footnotes to include the large number of guidance documents that the NRC has issued since it promulgated § 50.48 and to conduct future rulemakings to add new guidance documents as they are issued. The change also resolves an inconsistency between the information in footnote 3 to § 50.48 and the regulatory requirements of § 50.34(g)(1)(ii). Specifically § 50.34(g)(1)(ii) states, in part, that "Applications for light water cooled nuclear power plant construction permits, manufacturing licenses, and preliminary or final design approvals for standard plants docketed after May 17, 1982, shall include an evaluation of the facility against the SRP * * *," whereas, footnote 3 indicated that the fire protection portions of these applications would be reviewed against BTP APCSB 9.5-1.

3. In Section I of Appendix R, footnote 1 is removed.

Footnote 1 to Section I in Appendix R is identical to footnote 4 to § 50.48(b). The reasons given above for the removal of footnote 4 to § 50.48(b) also apply to footnote 1 to Section I in Appendix R.

4. In § 50.48, paragraphs (c), (d), and (e) are removed.

Paragraphs (c) and (d) of § 50.48 contained schedule requirements that were added to the Code of Federal Regulations when Appendix R became effective on February 17, 1981. These requirements applied to nuclear power plants licensed before January 1, 1979, and involved fire protection installation modifications, revisions of administrative controls, manpower changes, and training. These requirements were to be completed on a schedule determined by the provisions specified in § 50.48 (c) and (d). All schedular requirements of § 50.48 (c) and

(d) have been implemented and need not be retained[1].

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[1]The removed paragraphs read as follows:

(c) All fire protection modifications required to satisfy the provisions of appendix R to this part or directly affected by such requirements shall be completed on the following schedule:

(1) Those fire protection features that involve revisions of administrative controls, manpower changes, and training, shall be implemented within 30 days after the effective date of this section and appendix R to this part.

(2) Those fire protection features that involve installation of modifications that do not require prior NRC approval or plant shutdown shall be implemented within 9 months after the effective date of this section and appendix R to this part.

(3) Those fire protection features, except for those requiring prior NRC approval by paragraph (c)(5) of this section, that involve installation of modifications that do require plant shutdown, the need for which is justified in the plans and schedules required by the provisions of paragraph (c)(5) of this section, shall be implemented before startup after the earliest of the following events commencing 180 days or more after the effective date of this section and appendix R to this part:
(i) The first refueling outage;
(ii) Another planned outage that lasts for at least 60 days; or
(iii) An unplanned outage that lasts for at least 120 days.

(4) Those fire protection features that require prior NRC approval by paragraph (c)(5) of this section, shall be implemented within the following schedule: Dedicated shutdown systems --
30 months after NRC approval; modifications requiring plant shutdown -- before startup after the earliest of the events given in paragraph (c)(3) commencing 180 days after NRC approval; modifications not requiring plant shutdown -- 6 months after NRC approval.

(5) Licensees shall make any modifications necessary to comply with these requirements in accordance with the above schedule without prior review and approval by NRC except for modifications required by section III.G.3 of appendix R to this part. Licensees shall submit plans and schedules for meeting the provisions of paragraphs (c)(2), (c)(3), and (c)(4) within 30 days after the effective date of this section and appendix R to this part. Licensees shall submit design descriptions of modifications needed to satisfy section III.G.3 of appendix R to this part within 30 days after the the effective date of this section and appendix R to this part.

(6) In the event that a request for exemption from a requirement to comply with one or more of the provisions of Appendix R filed within 30 days of the effective date of this rule is based on an assertion by the licensee that such required modifications would not enhance fire protection safety in the facility or that such modifications may be detrimental to overall facility safety, the schedule requirements of paragraph (c) shall be tolled until final Commission action on the exemption request upon a determination by the Director of Nuclear Reactor Regulation that the licensee has provided a sound technical basis for such assertion that warrants further staff review of the request.

(d) Fire protection features accepted by the NRC staff in Fire Protection Safety Evaluation Reports referred to in paragraph (b) of this section and supplements to such reports, other than features covered by paragraph (c), shall be completed as soon as practicable but no later than the completion date currently specified in license conditions or technical specifications for such facility, or the date determined by paragraphs (d)(1) through (d)(4) of this section, whichever is sooner, unless the Director of Nuclear Reactor Regulation determines, upon a showing by the licensee, that there is good cause for extending such date and that the public health and safety is not adversely affected by such extension. Extensions of such date shall not exceed the dates determined by paragraphs (c)(1) through (c)(4) of this section.

(1) Those fire protection features that involve revisions of administrative controls, manpower changes, and training shall be implemented within 4 months after the date of the NRC staff Fire Protection Evaluation Report accepting or requiring such features.

(2) Those fire protection features involving installation of modifications not requiring prior approval or plant shutdown shall be implemented within 12 months after the date of the NRC staff Fire Protection Safety Evaluation Report accepting or requiring such features.

AFFIRMATION VOTE

RESPONSE SHEET

2000 APR 11 PM 2:35

TO: Annette Vietti-Cook, Secretary

FROM: COMMISSIONER DICUS

SUBJECT: **SECY-00-0080 - FINAL RULE: "ELIMINATION OF THE REQUIREMENT FOR NONCOMBUSTIBLE FIRE BARRIER PENETRATION SEAL MATERIALS AND OTHER MINOR CHANGES" (10 CFR PART 50) (WITS 199800128)**

Approved XX Disapproved _____ Abstain _____

Not Participating _____

COMMENTS:

None.

Greta Joy Dicus
SIGNATURE

May 6, 2000
DATE

Entered on "STARS" Yes ✓ No ____

AFFIRMATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: COMMISSIONER DIAZ

SUBJECT: **SECY-00-0080 - FINAL RULE: "ELIMINATION OF THE REQUIREMENT FOR NONCOMBUSTIBLE FIRE BARRIER PENETRATION SEAL MATERIALS AND OTHER MINOR CHANGES" (10 CFR PART 50) (WITS 199800128)**

Approved XX Disapproved _____ Abstain _____

Not Participating _____

COMMENTS:

See attached comments.

SIGNATURE

5.10.00
DATE

Entered on "STARS" Yes X No ____

COMMISSIONER DIAZ' COMMENTS ON SECY-00-0080

I approve the staff recommendation to publish the final rule in the *Federal Register* that eliminates the noncombustibility requirement for the penetration seal materials and makes other minor changes.

The rule should be reflected in the Standard Review Plan Section 9.5.1, "Fire Protection Program," and in the draft Regulatory Guide DG-1094, "Fire Protection for Operating Nuclear Power Plants." This should be done in a timely manner.

The staff should make the following changes to the rulemaking package before final publication:

- On page 20 of the *Federal Register* notice, the section describing the changes to Appendix R should be modified to read: "3. In Appendix R, Section I, footnote 1 is removed..."

- The draft Press Release should be modified to include more than the "Silicone-based" material as described in the second paragraph since the current rule change applies to barrier penetration seal materials which included silicone-based and other materials.

AFFIRMATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: COMMISSIONER MCGAFFIGAN

SUBJECT: **SECY-00-0080 - FINAL RULE: "ELIMINATION OF THE REQUIREMENT FOR NONCOMBUSTIBLE FIRE BARRIER PENETRATION SEAL MATERIALS AND OTHER MINOR CHANGES" (10 CFR PART 50) (WITS 199800128)**

Approved X Disapproved _____ Abstain _____

Not Participating _____

COMMENTS:

Please see attached comments.

Edward McGaffigan, Jr.
SIGNATURE

April 27, 2000
DATE

Entered on "STARS" Yes X No ____

Commissioner McGaffigan's Comments on SECY-00-0080

Prior to and throughout the course of the development of this rule, the NRC has maintained that there is no safety benefit associated with the word "noncombustible" in 10 CFR 50, Appendix R, with respect to fire seal materials. Indeed, it has been considered an artifact of language rather than of technical significance, and the staff has granted exemptions on that basis.

I support the final rule and recognize the staff's effort to reduce unnecessary burden while maintaining safety and approve the staff's recommendation to amend the NRC fire protection regulations to remove the requirement that fire barrier penetration seal materials be "noncombustible," and to make the other proposed minor changes. However, in order to communicate to the public the fact that safety was the primary consideration in the decision, the language used in the Federal Register Notice should be revised. The language should recognize that elimination of the requirement for fire barrier penetration seal materials to be noncombustible removes a requirement that has a negligible contribution to safety, rather than "does not make a significant contribution to safety." Conforming clarifications should also be made in the letters to Congress and the press release.

AFFIRMATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: COMMISSIONER MERRIFIELD

SUBJECT: **SECY-00-0080 - FINAL RULE: "ELIMINATION OF THE REQUIREMENT FOR NONCOMBUSTIBLE FIRE BARRIER PENETRATION SEAL MATERIALS AND OTHER MINOR CHANGES" (10 CFR PART 50) (WITS 199800128)**

Approved X IN PART Disapproved X IN PART Abstain _____

Not Participating _____

COMMENTS:

See attached comments.

SIGNATURE

5/1/00

DATE

Entered on "STARS" Yes ✓ No ____

Commissioner Merrifield's Comments on SECY-00-0080

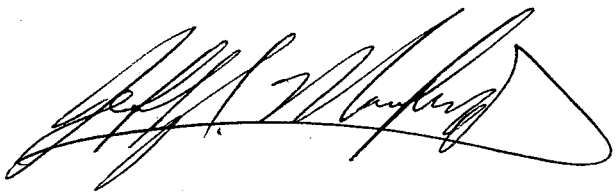
I **approve** the staff's recommendation to amend the NRC fire protection regulations to remove the requirement that fire barrier penetration seal materials be noncombustible, and to make other minor changes. Eliminating the noncombustibility requirement for penetration seal material will clearly reduce unnecessary burden without reducing safety.

I **disapprove** issuance of the Federal Register Notice included in SECY-00-0080 until the following revisions are made.

1. The staff should rewrite the NRC responses to comments 2, 3, and 5 in the Federal Register Notice. The comments pertain broadly to the use of combustible fire seal material. Yet, the responses are narrowly written to address silicone-based fire barrier penetration seals. In SECY-96-146, Technical Assessment of Fire Barrier Penetration Seals in Nuclear Power Plants, the staff revealed that while silicone-based materials are the predominant penetration seal materials, there are seals that are not silicone-based. Therefore, the staff's responses should be more broadly written to address, in a more complete manner, the full scope of the comments.

2. I agree with Commissioner McGaffigan's comments regarding the "safety significance" of eliminating the noncombustibility requirement. In SECY-96-146, the staff indicated that there was no technical basis for the noncombustibility requirement. In SECY-00-0080, there are instances in which the staff concludes that eliminating the noncombustibility requirement will not reduce safety. Thus, I agree with Commissioner McGaffigan that the language used in the Federal Register Notice should be revised so that the safety significance of the change is properly and consistently characterized.

3. In Section III (Summary of Changes) of the Federal Register Notice, the staff indicates that in NUREG-1552 and NUREG-1552, Supplement 1, the NRC concluded that "the benefits of the silicone-based penetration seal materials outweigh any potential concerns regarding material combustibility." Yet, the staff does not indicate what those benefits are. I believe the Federal Register Notice should be revised to include a more complete discussion of the benefits so that they are more readily understood by our stakeholders.



5/1/00

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

May 25, 2000

IN RESPONSE, PLEASE
REFER TO: M000525C

SECRETARY

MEMORANDUM FOR: William D. Travers
Executive Director for Operations

John F. Cordes, Director
Office of Commission Appellate Adjudication

FROM: Annette Vietti-Cook, Secretary

SUBJECT: STAFF REQUIREMENTS - AFFIRMATION SESSION, 1:30 P.M., THURSDAY, MAY 25, 2000, COMMISSIONERS' CONFERENCE ROOM, ONE WHITE FLINT NORTH, ROCKVILLE, MARYLAND (OPEN TO PUBLIC ATTENDANCE)[1]

I. SECY-99-0282 - Hydro Resources, Inc., Docket No. 40-8968-ML, Memorandum and Order (Financial Assurance for Decommissioning Issues), LBP-99-13, 49 NRC 233 (March 9, 1999); and Memorandum and Order (Motion to Hold in Abeyance), LBP-99-40 (October 19, 1999)

The Commission approved a Memorandum and Order related to an informal adjudicatory proceeding concerning a Part 40 source and byproduct materials license authorizing Hydro Resources, Inc. (HRI) to construct and operate in situ leach (ISL) mining facilities for a five-year period (1998-2003) at certain sites in Church Rock and Crownpoint, New Mexico, after meeting certain license conditions. The Eastern Navajo Diné Against Uranium Mining (ENDAUM), the Southwest Research and Information Center (SRIC), Marilyn Morris, and Grace Sam (intervenors) oppose the grant of HRI's license.

The Memorandum and Order 1) modifies the ruling in LBP-99-13 regarding financial assurance, places a condition on the license issued to HRI, and remands the case to the Presiding Officer for further proceedings; 2) grants HRI's September 3rd Motion to Strike; 3) denies as moot HRI's September 14th Motion to Strike; 4) denies HRI's September 14th Motion for Sanctions; and 5) denies intervenors' request for oral argument.

(Subsequently, on May 25, 2000, the Secretary signed the Memorandum and Order.)

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[1] Section 201 of the Energy Reorganization Act, 42 U.S.C. Section 5841, provides that action of the Commission shall be determined by a "majority vote of the members present." Commissioner Dicus was not present when these items were affirmed. Accordingly the formal vote of the Commission was 4-0 in favor of these decisions. Commissioner Dicus, however, had previously indicated that she would approve these papers and had she been present she would have affirmed her prior votes.

II. SECY-00-0080 - Final Rule: "Elimination of the Requirement for Noncombustible Fire Barrier Penetration Seal Materials and Other Minor Changes" (10 CFR Part 50)

The Commission approved a final rule amending 10 CFR 50.48 and 10 CFR Part 50, Appendix R, to eliminate the noncombustibility requirement for fire barrier penetration seal materials and making other minor changes. The Commission approved the publication and implementation of this final rule, subject to the attached changes.

Following incorporation of these changes, the Federal Register notice should be reviewed by the Rules Review and Directives Branch in the Office of Administration and forwarded to the Office of the Secretary for signature and publication.

(EDO) (SECY Suspense: 6/23/00)

The staff should reflect the rule changes in the Standard Review Plan Section 9.5.1, "Fire Protection Program," and in the draft Regulatory Guide DG-1094, "Fire Protection for Operating Nuclear Power Plants," as part of the next regularly scheduled update.

Attachment:
As stated

cc: Chairman Meserve
Commissioner Dicus
Commissioner Diaz
Commissioner McGaffigan
Commissioner Merrifield
EDO
OGC
CIO
CFO
OCAA
OCA
OIG
OPA
Office Directors, Regions, ACRS, ACNW, ASLBP (via E-Mail)
PDR - Advance

Attachment

Edits/Changes to Federal Register Notice

1. In order to communicate to the public the fact that safety was the primary consideration in the decision, the staff should revise the language used in the Federal Register Notice. The revised language should recognize that elimination of the requirement for fire barrier penetration seal materials to be noncombustible removes a requirement that has a negligible contribution to safety, rather than "does not make a significant contribution to safety."

2. The staff should rewrite the NRC responses to comments 2, 3, and 5 in the Federal Register Notice. The comments pertain broadly to the use of combustible fire seal material. Yet, the responses are narrowly written to address silicone-based fire barrier penetration seals. In SECY-96-146, "Technical Assessment of Fire Barrier Penetration Seals in Nuclear Power Plants," the staff revealed that while silicone-based materials are the predominant penetration seal materials, there are seals that are not silicone-based. Therefore, the staff's responses should be more broadly written to address, in a more complete manner, the full scope of the comments.

3. Section III (Summary of Changes) of the Federal Register Notice, page 10, indicates that in NUREG-1552 and NUREG-1552, Supplement 1, the NRC concluded that "the benefits of the silicone-based penetration seal materials outweigh any potential concerns regarding material combustibility." Yet, the staff does not indicate what those benefits are. The Federal Register Notice should be revised to include a more complete discussion of the benefits so that they are more readily understood by NRC stakeholders.

4. Page 2, first full paragraph, last sentence: add a comma after "This section addresses all comments,".

5. Page 2, third full paragraph: use small capitalization for first word after each item number.

6. Page 4, third paragraph: line 4 - delete "same" before "fire area"; line 6 - revise the spelling of "judgement" to "judgment".

7. Page 4, last paragraph, line 12: replace "Furthermore," with "Finally,".

8. Page 5, second full paragraph: revise second sentence to read "A properly designed, tested, and installed penetration seal will stop the fire for the rated time period, the same period as the rated-fire wall/ceiling/floor assembly in which it is installed."

9. Page 5, last paragraph, line 8: replace "....." with "fire barrier penetration seals .....".

10. Page 5, last paragraph, line 13: replace "they" with "such standards".

11. Page 6, line 6: revise sentence to read "Subsequently, the industry used this guidance in inspecting plant designs."

12. Page 6, second full paragraph, lines 2 & 3: replace ", such" with "and" and insert "as a result," before "the Appendix R ...".

13. Page 10, first item (3): add a comma after "... will provide the fire resistance of the tested design," .

14. Page 10, after first item (3): insert a space to separate the paragraph that follows.

15. Page 10, second item (1): correct the format - change "1." to "(1)".

16. Page 11, first full paragraph, line 10: add a comma after "3 and 4".

17. Page 11, first full paragraph: insert a space between paragraphs.

18. Page 12, first line: move the footnote number to the right of the period.

19. Page 20: correct the section number for the section describing the changes to Appendix R from "5." to "3."