

December 8, 1999

MEMORANDUM TO: Hubert J. Miller, Regional Administrator
Region I
Luis A. Reyes, Regional Administrator
Region II
James Dyer, Regional Administrator
Region III
Ellis W. Merschoff, Regional Administrator
Region IV
Acting Associate Director for
Inspection and Programs, NRR
Brian W. Sheron, Associate Director for
Project Licensing and Technical Analysis, NRR
Elizabeth Q. Ten Eyck, Director, Division of
Fuel Cycle Safety and Safeguards, NMSS
Donald A. Cool, Director, Division of
Industrial and Medical Nuclear Safety, NMSS
John T. Greeves, Director, Division of Waste
Management, NMSS
E. William Brach, Director
Spent Fuel Project Office, NMSS

FROM: R. W. Borchardt, Director
Office of Enforcement

SUBJECT: ENFORCEMENT GUIDANCE MEMORANDUM -
ENFORCEMENT DISCRETION PERTAINING TO VIOLATIONS OF
TECHNICAL SPECIFICATIONS THAT APPLY TO THE LABORATORY
TESTING OF NUCLEAR-GRADE ACTIVATED CHARCOAL

On June 3, 1999, the U.S. Nuclear Regulatory Commission (NRC) issued NRC Generic Letter 99-02, "Laboratory Testing of Nuclear-Grade Activated Charcoal," to licensees of nuclear power reactors, except those that have permanently ceased operations and have certified that fuel has been permanently removed from the reactor.

The purpose of the generic letter is to:

- (1) Alert the licensees that the NRC has determined that testing nuclear-grade activated charcoal to standards other than American Society for Testing and Materials (ASTM) D3803-1989, "Standard Test Method for Nuclear-Grade Activated Carbon," does not provide assurance for complying with the current licensing basis as it relates to the dose limits of GDC 19 of Appendix A to Part 50 of 10 CFR and Subpart A of 10 CFR Part 100, including commitment to the resolution of TMI Action Plan Item III.D.3.4., "Control Room Habitability Requirements."

- (2) Request that licensees determine whether their technical specifications (TS) reference ASTM D3803-1989 for charcoal filter laboratory testing. Holders whose TS do not reference ASTM D3803-1989 should either amend their TS to reference ASTM D3803-1989 or propose an alternative test protocol and provide the information discussed in the requested actions of the generic letter.
- (3) Alert licensees of the staff's intent to exercise enforcement discretion under certain conditions.
- (4) Request that the licensees send the NRC written responses to the generic letter, relating to implementation of the requested actions.

Currently available laboratory test results demonstrate that existing test protocols other than ASTM D3803-1989 do not provide accurate and reproducible test results and may overestimate the capability of the charcoal. However, on the basis of the available laboratory test results, the staff believes that most charcoal in use is NOT degraded to an extent that would adversely affect control room habitability or public health and safety.

As a result of several plants requesting emergency TS changes after determining that their charcoal testing was not in compliance with their TS, the NRC staff performed an internal survey of the TS of operating plants to determine whether other plants had the potential for similar compliance problems. The survey indicated that at least one-third of operating reactor licensees may be out of compliance with their TS. On the basis of this survey the staff established 4 groups of plants:

- (1) Plants in compliance with their TS that test in accordance with ASTM D3803-1989
- (2) Plants in compliance with their TS that test in accordance with a test protocol other than ASTM D3803-1989
- (3) Plants not in compliance with their TS that test in accordance with ASTM D3803-1989
- (4) Plants not in compliance with their TS that test in accordance with a test protocol other than ASTM D3803-1989

Group 1 plants are not of concern. For plants in Groups 2, 3, and 4, the staff intends to exercise enforcement discretion consistent with Section VII.B.6 of the Enforcement Policy based upon the conditions specified in the generic letter.

Plants in Group 2 have been complying with their TS by testing their charcoal in accordance with TS, thus enforcement discretion is not required for past surveillance testing of these plants. However, enforcement discretion will be exercised to eliminate unnecessary testing of charcoal samples to both ASTM D3803-1989 and the current TS testing protocol during the period of time between issuance of the generic letter and approval of the TS amendment that reference ASTM D3803-1989 or an alternative test protocol acceptable to the NRC.

The staff believes that (1) conflicting guidance, (2) complex and ambiguous standards, and (3) licensee belief that using later versions of the testing standard would satisfy their TS requirements, contributed to the confusion regarding charcoal testing. Therefore the staff intends to exercise enforcement discretion, consistent with Section VII B.6 of the NRC Enforcement Policy, for all licensees in Groups 2, 3 and 4, provided that:

- ! A TS amendment request referencing ASTM D3803-1989 or an alternate test protocol is submitted to the NRC within 180 days of the date of GL 99-02;
- ! At the next required laboratory surveillance test of a charcoal sample that is 60 or more days after the date of GL 99-02, charcoal samples are tested in accordance with ASTM D3803-1989 or all of the charcoal is replaced with new charcoal that has been tested in accordance with ASTM D3803-1989; and
- ! The charcoal samples continue to be tested in accordance with ASTM D3803-1989, in lieu of the current TS required laboratory testing, until the TS amendment is approved by the NRC.

This EGM provides instructions for dispositioning any identified or undocumented instances of these TS violations. Although violations have occurred, it is appropriate to exercise enforcement discretion in accordance with Section VII B.6 of the Enforcement Policy for the reasons stated in SECY-97-299, "Laboratory Testing of Nuclear-Grade Activated Charcoal," dated December 24, 1997, and Generic Letter 99-02.

If a violation of the TS requirements regarding the laboratory testing of nuclear-grade activated charcoal is identified and described in an inspection report¹, the violation should be dispositioned using report conclusion and cover letter text similar to that provided in the attachment. The attachment should be used as a guide and the text should be revised to reflect the specific case and circumstances. EA numbers previously assigned, if any, should be indicated on the letter. For cases without existing EA numbers, complete the "EA REQUEST & ENFORCEMENT STRATEGY FORM" and submit it to OE in order that an EA number may be assigned. EA numbers are necessary in order to enter these enforcement discretion cases into EATS (Enforcement Action Tracking System). No OE enforcement panel is necessary. The concurrence block for OE need only include "per EGM 99-008." Please include OE in the distribution of these inspection reports.

This is one-time enforcement guidance, thus no changes to the Enforcement Manual will be made as a result of this EGM. This EGM will be effective until September 30, 2000.

¹There are no specific inspection program followup inspections planned for Generic Letter 99-02.

If you have any questions about this matter, please contact Dave Nelson, Senior Enforcement Specialist, Office of Enforcement, at (301) 415-3280.

Attachment: As stated

cc: F. Miraglia, DEDR
D. Dambly, OGC
S. Collins, NRR Director
B. Boger, NRR
J. Zwolinski, NRR

DISTRIBUTION:

RBorchardt, OE

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ATTACHMENT

Text to be included in cover letters and inspection reports

Note: The following text can be revised to reflect case specifics and circumstances.

Cover Letter text:

As described in the enclosed report, we have determined that your facility was in violation of the technical specification (TS) [specify TS] regarding the laboratory testing of nuclear-grade activated charcoal. Specifically, the TS required that you test this charcoal as described in [include TS specified test protocol], but as of [date when licensee began using different protocol], you have tested this charcoal as described in [include test protocol or procedure used by licensee].

Thus, as described in the inspection report, your facility was in violation of TS [specify TS]. Numerous facilities have similar circumstances. The NRC has concluded based on the information discussed in the report that it is appropriate to exercise enforcement discretion for Violations Involving Special Circumstances in accordance with Section VII.B.6 of the "General Statement of Policy and Procedures for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600.

Therefore, after consultation with the Director, Office of Enforcement, we have been authorized to exercise enforcement discretion and not issue a violation for this matter.

[Include the following sentence for plants that have not received an amendment to their TS: Pending NRC approval of an amendment to TS [specify TS] that references ASTM D3803-1989 or an alternative test protocol acceptable to the NRC, further enforcement action will not be taken for failure to meet TS [specify TS] provided you continue to test charcoal samples in accordance with ASTM D3803-1989 until the TS amendment is approved by the NRC.]

Inspection Report text:

Technical Specification (TS) [specify TS] requires that samples of nuclear-grade activated charcoal used in the [specify system(s)] be tested in accordance with [specify test protocol, e.g., RG 1.52 or American National Standards Institute (ANSI) N509-1976, "Nuclear Power Plant Air-Cleaning Units and Components"]. The purpose of this test is to ensure that the activated charcoal used in safety-related air cleaning units that are part of the engineered safety features (ESF) ventilation systems are capable of reducing the potential onsite and offsite consequences of a radiological accident at a nuclear power plant by adsorbing radioiodine. Design-basis accident analyses assume a particular ESF charcoal filter adsorption efficiency when calculating offsite and control room operator doses. To ensure that the charcoal filters in these systems will have a filter adsorber efficiency greater than that assumed in the design-bases accident analysis, most licensees of operating plants have a TS requirement to perform a periodic laboratory test on samples of the charcoal extracted from the air cleaning units. The laboratory test acceptance criteria contain a safety factor to ensure that the efficiency assumed in the accident analysis is still valid at the end of the operating cycle.

The inspectors reviewed the licensee's nuclear-grade activated charcoal test records and determined that the charcoal samples were tested using [specify protocol used]. TS [specify TS] required that the charcoal samples be tested using [specify protocol]. The testing of the charcoal samples using [specify protocol] was identified as a violation of TS [specify TS].

The NRC has determined that numerous other licensees have similar circumstances that were caused by conflicting guidance and complex and ambiguous standards associated with the testing of nuclear-grade activated charcoal. The NRC addressed this issue in Generic Letter 99-02, which requested that licensees take specific actions if they did not test charcoal samples in accordance with their TS and/or did not test charcoal samples in accordance with American Society for Testing and Materials (ASTM) D3803-1989, "Standard Test Method for Nuclear-Grade Activated carbon." The inspectors determined that the licensee had taken the actions Specified in the Generic Letter, which included [specify actions taken by licensee].

After considering all the factors that resulted in these violations, the NRC has concluded that while a violation did exist, it is appropriate to exercise enforcement discretion for Violations Involving Special Circumstances in accordance with Section VII.B.6 of the "General Statement of Policy and Procedures for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600. This TS violation is identified as NCV 50-XXX/99-XX-XX for tracking purposes. **[Include the following sentence for plants that have not received an amendment to their TS: Pending NRC approval of an amendment to TS [specify TS] that references ASTM D3803-1989 or an alternative test protocol acceptable to the NRC, further enforcement action will not be taken for failure to meet TS [specify TS] provided you continue to test charcoal samples in accordance with ASTM D3803-1989 until the TS amendment is approved by the NRC.]**