

KH/R.G. 1.28 COMMENTS

JUL 11 1991

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MEMORANDUM FOR: Bill M. Morris, Director  
Division of Regulatory Applications  
Office of Nuclear Regulatory Research

FROM: B. J. Youngblood, Director  
Division of High-Level Waste Management  
Office of Nuclear Material Safety & Safeguards

SUBJECT: REVIEW OF DRAFT REGULATORY GUIDE (RG) 1.28, REVISION 4

The purpose of this memorandum is to provide our comments and recommendations on draft RG 1.28, Revision 4 as requested in your June 19, 1991, memorandum. These comments are essentially the same comments provided to O. Gormley by W. Belke on May 29, 1991. Our comments are from the perspective of experiences obtained through the development and publishing of RG 1.28, Revision 3 and dealings with the Committee to Review Generic Requirements (CRGR), Advisory Committee on Reactor Safeguards (ACRS), and public comment resolution. As indicated below, our comments are divided into two categories, General and Specific.

#### General

1. The format of the RG should indicate the deleted portions with dashes through the deleted portions and underlines beneath the new and or revised portions. This will make it easier for all interested parties to see exactly what the changes are. ACRS and CRGR will probably request this type of format.
2. There appears to be too many Regulatory Positions in Section C of the RG. Based on the preparation of RG 1.28, Revision 3, ACRS and CRGR were very "emphatic" about the large number of Regulatory Positions and whether they were absolutely necessary from a regulatory and public health and safety standpoint. Consequently, it is strongly recommended that each of these positions be totally defensible (as will be required in the Regulatory Analysis Statement) and justifiable for the ACRS, CRGR and public comment reviews.

#### Specific

1. The first paragraph, first sentence in Section A, "... plants, and other nuclear facilities ..." should be changed to read "... plants, and the geologic repository for high-level nuclear waste." (Section 60.152 of Subpart G to 10 CFR Part 60 requires a quality assurance program to be implemented for the geologic repository based on the criteria of Appendix B of 10 CFR Part 50 as applicable, and appropriately supplemented by additional criteria as required by Section 60.151 of 10 CFR Part 60.) The same change is recommended for the second paragraph, first sentence of Section B and first paragraph, first sentence in Section C. Also, the words "other nuclear facilities" should either be deleted or explained to avoid any ambiguities or misinterpretations of the RG in the future.

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2. In Revision 2 of the "Review Plan for High-Level Waste Repository Quality Assurance Program Descriptions," it states that this Review Plan endorses NQA-1-1986. Therefore, RG 1.28 should be consistent with the Review Plan and endorse NQA-1 for the high-level waste repository.
3. The rationale for including the second and third paragraphs in Section A as part of the RG is not clear or understood by us. It does not appear to contribute in any manner to the use of the RG or NQA-1. It is recommended that these two paragraphs be deleted from the RG or that their purpose be explained in more detail.
4. First paragraph and beginning of Section B of the RG has omitted the total historical development of the RG from Revision 0 to the present proposed Revision 4. It will need to be included as necessary background in the RG for the ACRS, CRGR, public comment and other interested parties.
5. Section 2 of the Regulatory Position, "Quality Assurance Records" deletes the reference to the ten year retention period for "product nonpermanent records." Much effort was devoted by the NRC, the Committee on Nuclear Quality Assurance, and the American Society of Mechanical Engineers (ASME) to assure that the ASME Boiler and Pressure Vessel Code, NQA-1, and NRC regulatory guidance would be consistent. In deleting the ten year retention period and requiring only three year and lifetime record retention periods, it becomes inconsistent with the 10 year record retention period required in Table NCA-4134.17-2 of the 1989 Section III, Division 1-NCA of the ASME Boiler and Pressure Code (enclosed). This issue should be clarified by NRC prior to sending RG 1.28 out for any type of review.

Should you have any questions on our comments, please contact W. Belke of my staff on 492-0445.

(Original Signed by .

B. J. Youngblood, Director  
Division of High-Level Waste Management  
Office of Nuclear Material Safety & Safeguards

Enclosure: As stated

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sion of document number and revision to which examination or tests were made; a signature, initials, or stamp; the date of the examination performed by the Certificate Holder's representative; an Authorized Nuclear Inspector's signature, initials, or stamp; and the date on which those activities were witnessed.

#### NCA-4134.9 Control of Processes

(a) The provisions of NQA-1, Basic Requirement 9 and Supplement 9S-1, shall apply.

(b) The Certificate Holder shall prepare instructions, procedures, drawings, checklists, travelers, or other appropriate documents, including the document numbers and revisions to which the process conforms, with space provided for reporting results of completion of specific operations at checkpoints of fabrication, manufacture, or installation. The documents shall include space for: a signature, initials, or stamp; the date of the Certificate Holder's representative; the Authorized Nuclear Inspector's signature, initials, or stamp; and the date on which those activities were witnessed.

#### NCA-4134.10 Inspection

(a) The provisions of NQA-1, Basic Requirement 10 and Supplement 10S-1, shall apply, except for the requirements of Inservice Inspection.

(b) The Certificate Holder shall prepare process sheets, travelers, or checklists, including the document numbers and revision to which the examination or test is to be performed, with space provided for recording results of examinations and tests. The documents shall include space for: a signature, initials, or stamp; the date that the activity was performed by the Certificate Holder's representative; the Authorized Nuclear Inspector's signature, initials, or stamp; and the date on which those activities were witnessed. The examination checklist for construction of items shall be filled in and completed by the Certificate Holder who applies the appropriate Code Symbol Stamp to the item.

(c) Mandatory hold points at which witnessing is required by the Certificate Holder's representative or the Authorized Nuclear Inspector shall be indicated in the controlling documents (NCA-4134.9). Work shall not proceed beyond mandatory hold points without the consent of the Certificate Holder's representative or the Authorized Nuclear Inspector, as appropriate.

**NCA-4134.11 Test Control.** The provisions of NQA-1, Basic Requirement 11 and Supplement 11S-1, shall apply.

#### NCA-4134.12 Control of Measuring and Test Equipment

(a) The provisions of NQA-1, Basic Requirement 12 and Supplement 12S-1, shall apply.

(b) The Certificate Holder may perform periodic checks on equipment to determine that calibration is maintained. When periodic checking is used, discrepancies need only be resolved to the prior check, provided the discrepancy is discovered by the periodic check. The methods and frequency of periodic checking, when used, shall be included in the Certificate Holder's Quality Assurance Program.

**NCA-4134.13 Handling, Storage, and Shipping.** The provisions of NQA-1, Basic Requirement 13 and Supplement 13S-1, shall apply.

**NCA-4134.14 Inspection and Test Status.** The provisions of NQA-1, Basic Requirement 14, shall apply for inspections and tests, but not for operating status.

**NCA-4134.15 Control of Nonconforming Items.** The provisions of NQA-1, Basic Requirement 15 and Supplement 15S-1, shall apply, except that the definition of *repair* given in this Section shall apply in lieu of *repair* and *rework* given in NQA-1.

#### NCA-4134.16 Corrective Action

(a) The provisions of NQA-1, Basic Requirement 16, shall apply.

(b) The requirements shall also extend to the performance of the subcontractor's corrective action measures.

#### NCA-4134.17 Quality Assurance Records

(a) *General.* The provisions of NQA-1, Basic Requirement 17 and Supplement 17S-1, shall apply, except that the requirements for classification in 17S-1, 2.7, retention of records in 17S-1, 2.8, and facility in 17S-1, 4.4 are not applicable. Such records shall be classified and maintained as required by this Section.

(b) *Records Index.* The records shall be indexed. The records and the indices thereto shall be accessible to the Owner, Owner's designee, and Authorized Nuclear Inspector.

(c) *Reproduction of Radiographs.* Radiographs may be reproduced provided the following requirements are met:

(1) the reproduction process shall be subject to the Owner's approval;

(2) when radiographs are reproduced for either an Owner or Certificate Holder, the Quality Assurance Program of the Certificate Holder responsible for the reproduction process shall include a system for con-

TABLE NCA-4134.17-1<sup>1</sup>  
LIFETIME QUALITY ASSURANCE RECORDS

Record	Record
1. Index to lifetime records (NCA-4134.17)	10. Records of post-tensioning sequence, procedure, and loads
2. Code Data Reports (NCA-8400)	11. Heat treatment records [Note (2)]
3. Design Specification (NCA-3250)	12. Qualification test reports such as for concrete design mixes (CB-2460 and CC-2460) and safety valves (NB-7700)
4. Design Documents, Division 1 (NCA-3350 and NCA-3550)	13. Structural integrity test reports (CB-6260 and CC-6260)
5. Design Report, Division 2	14. Final hydrostatic and pneumatic test results (NCA-5280)
6. Overpressure Protection Report (NB-7200, NC-7200, or ND-7200)	15. Final nondestructive examination reports; final radiographs as specified by the Owner for Section XI applications
7. Construction Specification (NCA-3340)	16. Repair records when required by Code (NX-4130)
8. As-built drawings (NCA-3454)	17. Weld procedures
9. Certified Material Test Reports (CMTR) and documentation providing traceability to location used, if required (NX-4122)	18. Construction Report (NCA-3454)

NOTES:

(1) Nonconformance reports that affect those records listed shall be incorporated into the record or be retained with the records.

(2) Either heat treatment charts or certified summaries of time and temperature data may be provided. These data may be included as part of the CMTR.

TABLE NCA-4134.17-2<sup>1</sup>  
NONPERMANENT QUALITY ASSURANCE RECORDS

Record	Retention Period
1. QA Program Manual	3 years after superseded or invalidated
2. Design procurement and QA procedures (NCA-4134.5)	3 years after superseded or invalidated
3. Installation and NDE procedures (NX-5112)	10 years after superseded or invalidated
4. Personnel qualification records (NX-5520 and NX-4322)	3 years after superseded or invalidated
5. Purchase orders	10 years after superseded or invalidated
6. Audit and survey reports (NCA-4121 and NCA-4134.18)	3 years after completion of report
7. Final radiographs not covered in Table NCA-4134.17-1, Record 15	10 years after completion
8. Calibration records (NCA-4134.12)	Until recalibrated
9. Process sheets, travelers, or checklists (NCA-4134.10)	10 years after completion
10. Rebar splice test reports (CB-4330 and CC-4330)	10 years after completion of report
11. Joint-welder identification records when such records are used in lieu of physical marking of welds (NX-4322)	10 years after completion of report

NOTE:

(1) Nonconformance reports, which affect those records listed and are not incorporated into the record, shall be retained for the retention period applicable to the record the nonconformance report affects.

trolling and monitoring the accuracy of the process so that the image, when reproduced to its original size, will provide the same information retrieval capability as the original radiograph;

(3) procedures shall contain applicable requirements pertaining to exposure, scanning, focusing, contrast, resolution, and distinguishing film artifacts that might appear as material discontinuities in the reproduced image.

(d) *Lifetime Records*. For Classes 1, 2, CS, MC, CC, and CB, the records listed in Table NCA-4134.17-1 shall be classified as lifetime records. For Class 3, only records 1, 2, 3, 4, 8, 9, 15, and 16 in Table NCA-4134.17-1 shall apply. The Certificate Holder shall be responsible for the retention and maintenance of these records while they are under his control. The Owner shall be responsible for retention and maintenance of those records which are transferred to him.

(e) *Nonpermanent Records*. For Classes 1, 2, CS, MC, CC, and CB, the records listed in Table NCA-

4134.17-2 shall be classified as nonpermanent records. For Class 3, only records 3, 7, and 8 in Table NCA-4134.17-2 shall apply. The Certificate Holder shall be responsible for their retention for the period specified in Table NCA-4134.17-2. In no case need nonpermanent records be retained for longer than 10 years after completion of applicable Code Data Report.

#### NCA-4134.18 Audits

(a) The provisions of NQA-1, Basic Requirement 18 and Supplement 18S-1, shall apply.

(b) Results of audits shall be made available to the Authorized Nuclear Inspector.

(c) The audit frequency shall be specified in the Certificate Holder's Quality Assurance Manual. The Certificate Holder's audit frequency shall be commensurate with his schedule of activities and shall be such that each ongoing Code activity is audited at least once annually.