INSPECTION PROCEDURE 45055

GEOTECHNICAL/FOUNDATION ACTIVITIES RECORD REVIEW

PROGRAM APPLICABILITY: 2512

45055-01 INSPECTION OBJECTIVES

01.01 To determine whether the licensee system for preparing, reviewing, and maintaining records is functioning properly.

01.02 To determine whether the selected records reflect work accomplishment consistent with specifications and procedures.

01.03 To determine whether the records indicate any potentially generic problems, management control inadequacies, or other weaknesses that could have safety significance.

Inspection Schedule

May Be Started	Must Be Started	Must Be Completed
In conjunction with Inspection Procedure (IP) 45053	Before nine months of safety-related geotechnical/foundation work has been performed	Six months after the last geotechnical/foundation activities are completed

45055-02 INSPECTION REQUIREMENTS

Review licensee/contractor requirements for QA record generation and management. Determine who prepares each record and, importantly, who is required to review the records for accuracy and for assuring that the recorded information meets requirements.

02.01 Review the documentation generated for the geotechnical/foundation activities reviewed in Inspection Procedure (IP) 45053-02.03. A complete record review should be done for the geotechnical foundation activities reviewed in IP 45053-02.03 but at twice the inspection frequency as specified in IP 45053-02.03 (i.e., monthly becomes bimonthly and quarterly becomes semi-annually). In addition, review a sample of records for related work activities not specifically reviewed in IP 45053. Determine whether the licensee/contractor system for documenting safety-related work is functioning properly. Review a sample of the following records:

a. Receipt Inspection and Material Certification. Records confirm that required material characteristics, performance tests, nondestructive test, and other specification requirements were met.

b. Installation Inspection

1. Records confirm that specified materials and components were installed as specified.

2. Records confirm that the required inspections were performed and acceptance criteria are defined.

3. Production test records quantitatively indicate test results and acceptance criteria.

4. Records confirm that required protection was provided after installation.

02.02 Review a sample of records to verify that:

a. Nonconformance/Deviation Records

1. Records include current status of these items (review about 10 nonconformance reports to ascertain adequacy).

2. Records are legible, complete, reviewed by QC personnel, and readily retrievable.

3. Nonconformance reports include the status of corrective action or resolution.

b. Training/Qualification Records of Craft, QA, and Inspection (QC) Personnel

1. Records are complete and current.

2. Records establish that QA/QC personnel are adequately qualified for their assigned duties and responsibilities.

3. Records indicate that craft personnel have been trained in their assigned tasks.

c. QA Audits

1. Records establish that the required audits were performed.

2. Records show that deficiencies identified during audits were corrected and that corrective action was such that repetition of the deficiency, or similar deficiencies, would be precluded.

45055-03 INSPECTION GUIDANCE

General Guidance. Applicable quality assurance (QA) manuals and procedures should be reviewed to determine licensee commitments relative to documenting construction and inspection activities before performing this inspection. The adequacy of the licensee's documentation requirements are reviewed during IP 45051. Findings from this inspection should indicate proper implementation of documentation requirements for material certifications, installation inspections, and personnel qualification records. Review of QA

audits and nonconformance/deviation records should incorporate an assessment of the licensee's conformance to the reporting requirements of 10 CFR 50.55(e).

Findings from this inspection activity should address each element as being satisfactory, being unresolved and requiring resolution, or being in violation and requiring correction. Geotechnical activities should also be reviewed in the light of being consistent with standard industry practice for the successful completion of that activity. When significant inadequacies are identified in the specifications or procedures indicating weakness within the preparing organization, the inspector should inform cognizant regional management. The issue should be addressed at the appropriate level of licensee management.

It may be convenient and desirable to complete portions of this procedure in conjunction with IP 45053.

The inspector should bear in mind that NRC's sample covers only a very small portion of the records involved. Thus, substantive errors or departure from requirements identified in NRC's sample raise the issue of whether the licensee is adequately controlling the process.

03.01 Specific Guidance

Note: The numbering of the guidance below refers to the specific subsection of 02, above.

02.01 The records to be reviewed should be from those activities in each of the subsections of IP 45053-02.03a-i (Subgrade Preparation, Fill Materials and Compaction Control, Embankments, etc.) The records reviewed for each subsection of IP 45053-02.03 should reflect work and inspection activities observed in IP 45053 and those activities not specifically reviewed. The intent is to review sufficient records to determine whether the documentation system and controls are adequate and meet requirements.

45055-04 REFERENCES

SAR, Chapters 1, 2, 3, and 17, including pertinent codes and standards referenced in those chapters.

Regulatory Guide 1.58, Qualification of Nuclear Power Plant Inspection, Examination and Testing Personnel.

Regulatory Guide 1.88, Collection, Storage and Maintenance of Nuclear Power Plant Quality Assurance Records.

Regulatory Guide 1.132, Site Investigation for Foundations of Nuclear Power Plants.

Regulatory Guide 1.138, Laboratory Investigation of Soils for Engineering Analysis and Design of Nuclear Power Plants.

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