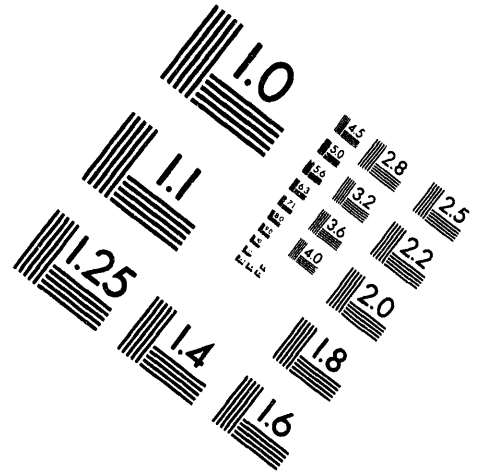
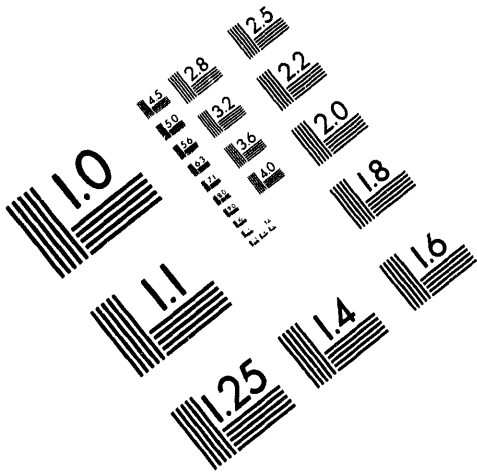




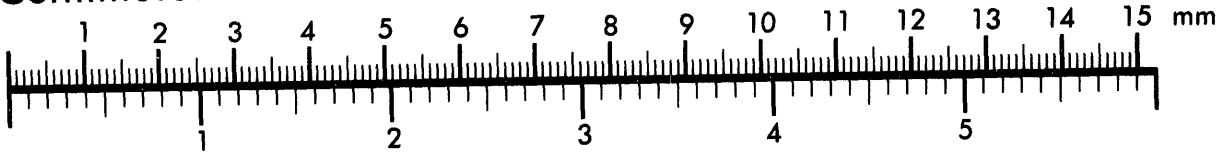
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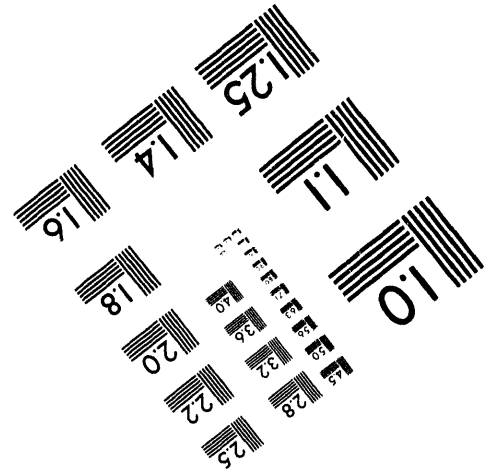
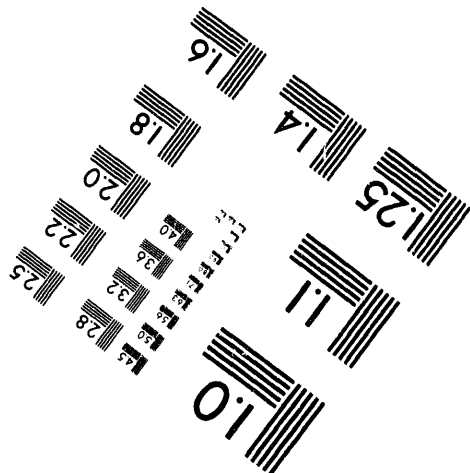
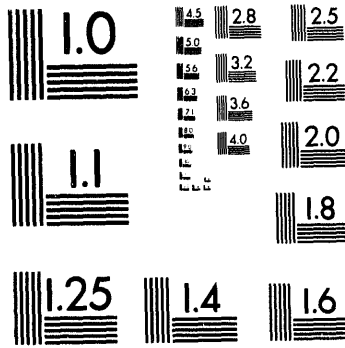
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SUPPORTING DOCUMENT

1. Total Pages *A6*

<p>2. Title Quality Assurance Plan, N Springs Expedited Response Action</p>	<p>3. Number WHC-SD-EN-QAPP-009</p>	<p>4. Rev No. 0</p>
<p>5. Key Words Remedial Action, 100-N, ERA</p> <p style="text-align: center;">APPROVED FOR PUBLIC RELEASE</p> <p style="text-align: center;"><i>V. Burkland 6/24/94</i></p>	<p>6. Author Name: George J. Jackson <i>George J. Jackson</i> Signature Organization/Charge Code 85900/PG22A</p>	
<p>7. Abstract G. J. Jackson, "Quality Assurance Plan, N Springs Expedited Response Action," WHC-SD-EN-QAPP-009, Rev. 0, Westinghouse Hanford Company, Richland, WA, 1994.</p>		
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**QUALITY ASSURANCE PLAN
N SPRINGS ERA**

1.0 PROJECT DESCRIPTION

1.1 PROJECT SCOPE

This document is the Quality Assurance Plan (QAP) to be followed during the definitive design, construction, and operational phases for activities associated with the N Springs Expedited Response Action (ERA) for the 100-NR-2 Operable Unit (OU). Westinghouse Hanford Company (WHC) will comply with the U.S. Department of Energy (DOE) Order 5700.6C, Quality Assurance (DOE 1989), and the U.S. Environmental Protection Agency (EPA), EPA/530-SW-86-031, *Technical Guidance Document: Construction Quality Assurance for Hazardous Waste Land Disposal Facilities* (EPA 1986).

1.2 BACKGROUND INFORMATION

The 100-NR-2 Operable Unit is located in and around the 100-N Area of the Hanford Site. A detailed description of the OU is provided in Section 2.0 of the 100-NR-2 work plan (DOE-RL).

The N Springs ERA is being performed in an effort to accelerate the remedial action for the 100-NR-2 OU. This ERA will include the construction of a sheet pile barrier, with a pump and treat system installed behind it. Under the definition of an ERA, these activities are an interim remedial measure and thus will not be used as a final remedy for this site, based on a subsequent Record of Decision. Data will be collected for sheet pile barrier constructability and the overall performance of the barrier and pump and treat system.

2.0 PROJECT ORGANIZATION AND RESPONSIBILITY

A specific Project Management Plan (Jackson 1994) that defines organizational structures and responsibilities has been prepared for this project. The following sections summarize the responsibilities of each party.

2.1 THE U.S. DEPARTMENT OF ENERGY, RICHLAND OPERATIONS OFFICE

The DOE Richland Operations Office (RL), as ultimate owner, controls the N Springs ERA participants. The owner has delegated daily management responsibilities to WHC. Included in this delegation is the overall Quality Assurance Project Plan (QAPjP) implementation and system of overchecks and appraisals, which are subject to separate overview by RL.

2.2 WESTINGHOUSE HANFORD COMPANY

The WHC has the responsibility and authority for daily management of the project and establishment of an overall QAP. In order to accomplish these responsibilities, WHC will monitor and approve any QAPjP prepared by any subcontractor. WHC will provide technical direction on the design and construction of the barrier and pump and treat system.

2.3 DESIGN/CONSTRUCTION SUBCONTRACTOR

Separate subcontractors for the design and construction of the sheet pile barrier and the pump and treat system will be procured.

Each subcontractor will be responsible for the following tasks:

- Overall design engineering
- Preparation of definitive design documents
- Design control
- Internal verification of technical design
- Providing Title III engineering services
- Meeting specifications, drawings, and other contract stipulations
- As-Built verification
- Inspection planning documentation

The subcontractor will provide their own Construction QAPjP, which will implement the specific requirements addressed in this QAP, DOE Order 5700.6C (DOE 1989), and EPA/530-SW-86-031 (EPA 1986), and develop controls necessary to assure compliance with the internal engineering effort. During development of specifications and drawings, the subcontractor will specify criteria identified in this plan which provide Quality Assurance (QA) and Quality Control requirements. This will include a Construction QAP for the construction of each entity.

3.0 QUALITY ASSURANCE REQUIREMENTS

3.1 SAFETY CLASSIFICATION

Definitions for safety classification are established in WHC-CM-1-3, "Management Requirements and Procedures", MRP 5.46 (WHC 1988). Engineered features within the sheet pile barrier and pump and treat system will have a safety class III.

3.2 ENVIRONMENTAL PROTECTION

All quality activities conducted during the design, construction, and operations of the N Springs ERA entities will meet the intent of EPA/530-SW-86-031 (EPA 1986).

3.3 DOE ORDER 5700.6C

All quality activities conducted during the design, construction, and operations of the N Springs ERA entities will meet the intent of DOE Order 5700.6C, *Quality Assurance* (DOE 1989).

As a minimum, the following applicable subjects will be addressed in the Construction QAPjP for the design function:

- Organization
- QA program
- Design control
- Instructions, procedures, and drawings
- Document control
- QA records (Approved drawings, individual sheet records, etc.)

In addition to the above requirements, the following applicable subjects will be addressed in the construction phase:

- Procurement document control
- Control of purchase items and services
- Identification and control of items
- Process control
- Inspection
- Test control
- Measuring and test equipment control
- Handling, storage, and shipping
- Control of nonconforming items
- Corrective action

In addition to the Construction QAPjP, an Operations QAPjP will be written specific to facility operations. This QAPjP will address process subjects such as process sampling protocols, operating data quality objectives, and audits/surveillances.

3.4 DOCUMENT APPROVALS AND CHANGE CONTROL

The Construction QAPjP, including implementing procedures prepared by the subcontractor, will be submitted to WHC for review and approval prior to use, in accordance with the appropriate approval designator (WHC-CM-3-5). Any change to WHC approved documents will be reviewed and approved by WHC prior to use.

3.5 ACCESS

The subcontractor will grant access to facilities, files, records, and personnel for the purpose of periodic WHC QA audit and/or surveillance.

3.6 GOVERNMENT ACCEPTANCE

Authorized Government Acceptance (AI) will be responsible for acceptance of construction. Their surveillance and overview will determine project specific acceptance based on requirements identified in the specifications and drawings. Conditions adverse to quality that are identified through inspection activities, Nonconformance Reports (NCR), and audits will be tracked and Corrective Action Reports will be issued as warranted. WHC will approve any NCR disposition prior to implementation. AI will identify hold and witness points as appropriate to the design and construction.

4.0 REFERENCES

Buckmaster, M.A., *Quality Assurance Project Plan, 200-BP-1 Crib 216-B-57 Surface Barrier*, WHC-SD-EN-QAPP-004, April 1993.

DOE, *Quality Assurance*, DOE Order 5700.6C, U.S. DOE, Washington, DC, 1989.

EPA, *Technical Guidance Document: Construction Quality Assurance for Hazardous Waste Land Disposal Facilities*, EPA/530-SW-86-031, U.S. EPA, Washington, DC, 1986.

Jackson, G.J., *Project Management Plan, N Springs ERA*, WHC-SD-EN-PMP-008, Rev. 0, Westinghouse Hanford Company, Richland, WA, 1994.

WHC, *Management Record and Procedures, MRP 5.46, "Safety Classification of Components and Systems"*, WHC-CM-1-3, Westinghouse Hanford Company, Richland, WA, 1988.

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