



Department of Energy

Washington, DC 20585

QA: L

JUL 03 1997

L. D. Foust, Technical Project Officer
for Yucca Mountain Site
Characterization Project
TRW Environmental Safety Systems, Inc.
1180 Town Center Drive, M/S 423
Las Vegas, NV 89134

ISSUANCE OF SURVEILLANCE RECORD K/PB-SR-97-023 RESULTING FROM THE
OFFICE OF QUALITY ASSURANCE (OQA) SURVEILLANCE OF KIEWIT/PARSONS
BRINCKERHOFF (KIEWIT/PB)

Enclosed is the record of Surveillance Kiewit/PB-SR-97-023 conducted by the OQA of the
Kiewit/PB facilities in the Exploratory Studies Facility, March 31 through June 27, 1997.

The purpose of the surveillance was to evaluate Kiewit/PB implementation of Quality Assurance
(QA) Controls identified in Field Work Packages.

There were no Corrective Action Requests, Deficiency Reports or Performance Reports issued
as a result of the surveillance.

The results of the surveillance are that Kiewit/PB is presently adequately implementing QA
Controls for those activities evaluated.

If you have any questions, please contact either James Blaylock at (702) 794-1420 or
Charles D. Osborne at (702) 295-5912.

James Blaylock
Donald G. Horton, Director
Office of Quality Assurance

OQA:JB-1846

Enclosure:
Surveillance Record K/PB-SR-97-023

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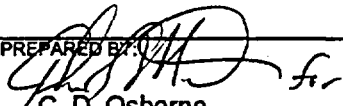
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RADIOACTIVE WASTE MANAGEMENT
U.S. DEPARTMENT OF ENERGY
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Surveillance No. K/PB-SR-97-023


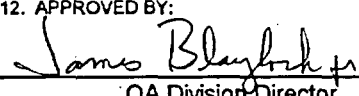
QUALITY ASSURANCE SURVEILLANCE RECORD

SURVEILLANCE DATA

1. ORGANIZATION/LOCATION: Kiewit/Parsons Brinckerhoff (Kiewit/PB) Constructor Yucca Mountain Site	2. SUBJECT: Kiewit/PB Implementation of Quality Assurance (QA) Controls Identified in Field Work Packages (FWP)	3. DATE: March 31 through June 27, 1997
4. SURVEILLANCE OBJECTIVE: Evaluate the adequacy and effectiveness of Kiewit/PB implementation of QA Controls identified in FWPs.		
5. SURVEILLANCE SCOPE: Evaluate Kiewit/PB implementation of QA Controls identified in FWPs generated in accordance with YAP-5.7Q, "Exploratory Studies Facility (ESF) Testing FWPs."		6. SURVEILLANCE TEAM: Team Leader: C. D. Osborne Additional Team Members: N/A
7. PREPARED BY:  C. D. Osborne Surveillance Team Leader	8. CONCURRENCE: N/A QA Division Director	Date 3/31/97 Date

SURVEILLANCE RESULTS

9. BASIS OF EVALUATION/DESCRIPTION OF OBSERVATIONS: The purpose of this surveillance was to evaluate Kiewit/PB's implementation of the QA Controls identified in the FWPs. Compliance to selected QA Controls from a FWP were evaluated by interviewing responsible personnel and examination of documentation. FWPs are generated in accordance with YAP-5.7Q to establish and define responsibilities and processes and to assure field work is planned and accomplished under suitably controlled conditions in accordance with the Quality Assurance Requirements and Description (QARD), DOE/RW-0333P. See Page(s) 2-5

10. SURVEILLANCE CONCLUSIONS: Based on interviews with Kiewit/PB personnel, examination of documentation, and review of procedure revisions to Kiewit/PB implementing procedures made during this surveillance, it is concluded that Kiewit/PB is adequately implementing QA Controls for those activities evaluated. There were no deficiencies identified during this surveillance; however, it was recognized that potential deficiencies could develop because Kiewit/PB did not work to FWPs. The revisions made to Kiewit/PB implementing procedures indicating that they will recognize FWPs within their program should eliminate the possibility of a deficiency occurring if properly implemented.	
11. COMPLETED BY:  C. D. Osborne Surveillance Team Leader	12. APPROVED BY:  James Blaylock QA Division Director
Date 6/27/97	Date 7/3/97

Block 9 (Continued) BASIS FOR EVALUATION/DESCRIPTION OF OBSERVATIONS:

During the course of the surveillance FWP-ESF-96-003, Revision 3, "Thermal Testing in the ESF - Phase I" was evaluated to determine if "Q" controls from the FWP had been properly implemented. The following selected criteria were evaluated for compliance. The criteria from the FWP is delineated in italics:

TFM USAGE AND REPORTABILITY:

Paragraph 1.5 states in part: *"The use or removal of test related Tracers, Fluids, and Materials (TFM) by affected organizations must be reported to the Technical Coordination Office (TCO) prior to use or removal. The TCO will report the use in accordance with YAP-2.8Q, "Tracers, Fluids, and Materials Data Reporting and Management." The ESF constructor is responsible for reporting construction related TFM usage."*

Paragraph 3.1 states in part: *"The ESF CONSTRUCTOR shall measure and document the total amount of water used in the application of concrete (including water used to hydrate the concrete, rehydrate the concrete, and moisten the rock surface prior to emplacement.)"*

Paragraph 3.1 further states, *"The ESF CONSTRUCTOR will measure, by shift, water use and removal in accordance with the TFM procedure and will ensure that drilling water is not recirculated back into the borehole."*

When water is used below ground Kiewit/PB Technical Control Procedure (TCP) - 2.7, Revision 5, "Water Use and Control - Subsurface" is utilized as required by Architect/Engineer (A/E) Specification 01501, Revision 4, "Subsurface General Construction." Subject Procedure and Specification requires all water used for construction be accounted for and balanced. The use of water and its balance is recorded in Kiewit/PB Work Package (WP) 2.20.3, "Tunnel Boring Machine Excavation" for all subsurface activities. Additionally, any other TFM utilized underground is recorded upon the "Underground TFM Control Log" in accordance with Kiewit/PB, TCP-3.5, Revision 5, "TFM Estimating, Accountability, and Reporting." Review of Underground TFM Control Logs contained in Kiewit/PB WP 2.20.3 for Grave, Swing and Day Shifts dated 4-8-97, 4-9-97, and 4-11-97 provide evidence that TFM is recorded. Water Use Logs dated 4-8-97 and 4-9-97 contained in WP 2.20.3 provide evidence that water use in Alcove 5 is accounted for.

In discussion with cognizant Kiewit/PB personnel, it was ascertained that the original TFM reports are maintained within the Kiewit/PB WP 2.20.3, and a copy is sent to the Test Coordination Office upon records completion.

SURVEY:

Paragraph 3.1 states in part: *"The ESF CONSTRUCTOR will produce as-constructed survey and records for the excavated rock surface of the 5.6 meter diameter portion of the heated drift as per design drawing BABEAFOOO-01717-2100-40252-00."*

Kiewit/PB performs surveys in accordance with TCP-2.19, Revision 3, "Survey Group Work Functions." Survey records transcribed from Kiewit/PB survey field notebooks numbered 95 and 99 were reviewed. Records generated as a result of transcribing the survey data were found to correspond to page 79 of Field Notebook 95 and page 51 of Field Notebook 99. These records document the excavated portion of the rock surface.

SAMPLE COLLECTION:

Paragraph 3.1 states in part: *"The ESF CONSTRUCTOR will collect samples of fresh concrete daily as near to the point of placement as practical and conduct testing on the specimens as per design drawing #BABEAFOOO-01717-2100-40252-00."*

During the course of the surveillance, 15 Heated Drift Cast In Place Concrete Lining Field Testing Data Records for concrete samples collected on 4-8-97 were reviewed. Records are uniquely identified by Specimen Numbers 1 through 15. These records were located within WP 2.25.8 and provide evidence that the QA Control had been addressed.

In discussions with Kiewit/PB personnel, it was found that surveys and concrete testing required for FWP-ESF-96-003 were conducted in accordance with A/E Drawing BABEAFOOO-01717-2100-40252 and not because it was stipulated by the FWP. It was also stated that the reporting of TFM are recorded and reported in accordance with A/E Specification BABOOOOOO-01717-6300-01501, Revision 4, "Subsurface General Construction."

Additionally, it was stated numerous times during the course of the surveillance by Kiewit/PB that they do not work to FWPs.

A meeting was held on 6-5-97 with Construction Management (CMO), Kiewit/PB, Office of Quality Assurance staff, and Technical Control Office (TCO) representatives to discuss the need for Kiewit/PB to be able to recognize and implement FWPs within their implementing procedures. A procedure revision was initiated by Kiewit/PB to revise MCP-2.0 "Constructing Planning and Control" and MCP-2.2 "Quality Assurance Program" to recognize FWPs and describe how work would be performed by Kiewit/PB.

MCP-2.0, Revision 21, revised paragraph 1.2, to read: "Work activities performed in support of other organizations shall be controlled in accordance with Section 3.6 of Reference 2.2 which is MCP-2.2."

MCP-2.2, Revision 8, added paragraph 3.6.1, which states: "Kiewit/PB is occasionally directed by the CMO to provide support (i.e., labor, equipment, services) to other organizations under the direction/supervision of the supported organization (FWPs, WIs, etc). In such cases when the CMO directive contains requirements to implement the Kiewit/PB QA Program, Kiewit/PB will implement only those Kiewit/PB work procedures applicable to the accomplishment of the work task. Kiewit/PB QA Program elements not required to directly control the work activity may or not be applied. The application of these elements will be at the discretion of Kiewit/PB."

Paragraph 3.6.2 further states: "Documentation of the work performed, as necessary, will be transmitted to the supported organization and as required by their QA Program."

These revisions will ensure that the Kiewit/PB QA Program will be implemented when directed and graded to the nature and complexity commensurate to the work.

Personnel Contacted:

Bob Armstrong, Kiewit/PB, Quality Assurance Manager

Kevin Krank, Kiewit/PB, Quality Coordinator

Howard Cox, Kiewit/PB, Quality Control Manager

Carol Rixford, Kiewit/PB, Records Manager

Jay Keating, Kiewit/PB, Construction Engineer

Richard McDonald, Morrison Knudsen, (MK), Manager, Construction Management Office

Richard Kovack, Los Alamos National Laboratory, (LANL), Site Facilities Test Implementation,
Lead

Robert Skorseth, Morrison Knudsen, A&E Title III Engineer Subsurface

Toby Wightman, Kiewit/PB, Construction Manager

Rudy Johnson, Kiewit/PB, Environmental Manager

Conrad Fischer, Kiewit/PB, Engineer

Greg Bates, Kiewit/PB, Survey Lead

Karen Spence, Kiewit/PB, Records Analyst

Allen Mitchel, LANL, TCO

Andrew Burningham, Civilian Radioactive Waste Management System Management and
Operating Contractor, QA Liaison

John Martin, QATSS, Manager, Field & Test

Documents Reviewed:

FWP-ESF-96-003, Revision 3, "Thermal Testing in the Exploratory Studies Facility-Phase 1"
Drawing BABEAFOOO-01717-2100-40252, Revision 0, "TS Main Drift-Thermal Testing Facility"

Kiewit/PB Procedure TCP-2.7, Revision 5, "Water Use and Control - Subsurface"

Kiewit/PB Procedure TCP-3.5, Revision 5, "TFM Estimating, Accountability, and Reporting"

Kiewit/PB Procedure MCP-2.0, Revision 21, "Construction Planning and Control"

Kiewit/PB Procedure MCP-2.2, Revision 8, "Quality Assurance Program"

Kiewit/PB Work Package 2.20.3, "TBM Excavation"

Kiewit/PB Work Package 2.25.8, "Thermal Test Alcove Cast-in-Place Concrete and Miscellaneous"

YAP-5.7Q, Revision 0, ICN 0, "Exploratory Studies Facility (ESF) Testing FWPs"

Survey Records YMP 99/51 and 95/79, "Location Profiler EDM"

A/E Specification 01501, Revision 4, "Subsurface General Construction"