



**GEOSCIENCES AND ENGINEERING DIVISION
QUALITY ASSURANCE
SURVEILLANCE REPORT**

PROJECT NO.: 06002.01.322

REPORT No.: 2005-20

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SURVEILLANCE SCOPE: Corrosion Science and Process Engineering

REFERENCE DOCUMENTS: AP-001, Evaluation of Potential for Conflict of Interest; QAP-001, Scientific Notebook Control; QAP-004, Surveillance Control; QAP-005, Quality Indoctrination and Training; QAP-007, Professional Personnel Qualification; QAP-013, Quality Planning; and QAP-019, Control of Measuring and Test Equipment

START DATE: 11/01/2005

END DATE 11/16/2005

QA REPRESENTATIVE:
Mark R. Ehnstrom

PERSONS CONDUCTING ACTIVITY: V. Jain, Y. Pan, L. Yang, X. He, K. Chaing, S. Pavan, and B. Derby

SATISFACTORY FINDINGS: Quality Requirements Application Matrix (QRAM) forms for the Corrosion Science and Process Engineering Integrated Subissues (ISI) were reviewed. The information contained on the QRAM was used as a starting point for each interview conducted during the surveillance. Information contained on the QRAM's was found to be accurate in identifying the applicable portions of the quality program to be applied. The Corrosion Science and Process Engineering ISIs include, "Performance Confirmation" and "Degradation of Engineered Barriers." Each effort is discussed below:

Performance Confirmation

Current activity is directed towards xFlo code development. Work activities associated with the development of this code will be evaluated during surveillance 2005-21.

Degradation of Engineered Barriers

Activities include review of Department of Energy (DOE) documents which translate into laboratory work. These activities are designed to either confirm or question DOE results. Laboratory studies include defining and improving the parameters used in the TPA code, ongoing slow strain rate tests, and microbial testing.

Critical measuring and test equipment used in experiments was reviewed and are identified on Attachment 1. The equipment reviewed was within each calibration cycle and calibration documentation is contained in the Electronic Library Facility.

During the surveillance, 18 scientific notebooks were reviewed. The review found them to be complete, legible, and satisfying the requirements of the procedure. The attachment identifies the notebooks reviewed during the surveillance.

Personnel Qualification records were reviewed for GED staff contacted during the surveillance and for consultants S. Birnbaum and J. Becker. All records were determined to be acceptable.

UNSATISFACTORY FINDINGS: None

NCR NO.: N/A

CAR NO.: N/A

ATTACHMENTS: Attachment identifies scientific notebooks and critical measuring and test equipment reviewed during the surveillance.

RECOMMENDATIONS/ACTIONS: None

APPROVED:

DATE:

11/17/2005

DISTRIBUTION:

ORIGINAL—QA RECORDS

DIRECTOR, QA

ASSISTANT DIRECTOR: S. Mohanty

MANAGER: V. Jain

PRINCIPAL INVESTIGATOR: Y. Pan

Attachment to Surveillance Report 2005-SR-020

Critical measuring and test equipment reviewed during the surveillance:

<u>Item</u>	<u>Serial/Asst. No.</u>	<u>Cal. Date</u>	<u>Cal. Due</u>
Solartron Multistat	00240053	8/23/05	2/23/06
Solartron Multistat	00240551	10/25/05	4/25/06
Solartron Multistat	00288265	6/01/05	12/01/05
Dual Thermometer	51046103	6/7/05	6/7/06
Electric Thermometer	3130900	7/13/05	1/13/06
Thermometer	H00-387	7/11/05	1/11/06
Thermometer	H98-170	4/27/05	4/27/06
Thermometer	C96-377	7/11/05	1/11/06
Thermocouple	011659	5/19/05	11/18/05*
Thermocouple	334	10/18/05	4/18/06
Thermocouple	335	10/18/05	4/18/06
Fluke Multimeter	007645	1/07/05	1/07/06
pH Meter	001869	10/17/05	10/17/06

* Removed from the work area to be sent to the calibration laboratory.

The following list identifies Scientific Notebooks reviewed during surveillance:

443,465,498,602,615,637,659,670,672,686,705E,706,712,713,715,718,732,744