6/3/6

CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES
QUALITY ASSURANCE
SURVEILLANCE REPORT

PROJECT NO.: 20-3704-042 | REPORT NO.: 90-003 | PAGE 1 OF 2

SURVEILLANCE SCOPE:

Preparation of test solution and conduct of Cyclic Polarization Test # PTVR-14

REFERENCE DOCUMENTS: TOPs-010, 008

STARTING DATE: 5/28/90 ENDING DATE: 5/28/90

QA REPRESENTATIVE: R. D. Brient

PERSONS CONDUCTING TEST / EXAM / ACTIVITY:

W. Machowski (06)

SATISFACTORY FINDINGS:

See Attached.

UNSATISFACTORY FINDINGS:

Contrary to the requirement of TOP-008, para 6.1, a ASTM G-61 verification test was not performed before beginning the PTVR series of tests.

NONCONFORMANCE REPORT NO.: 90-008 1/13

ATTACHMENTS: Nonconformance Report No. 90-008 1/13

RECOMMENDATIONS / ACTIONS

See Attached.

APPROVED: _____
CENTER DIRECTOR OF QUALITY ASSURANCE

DATE: 5/29/90

DISTRIBUTION:
ORIGINAL - CENTER QA DIRECTOR
ORIGINATOR
PRINCIPAL ENGINEER N. Sridhar
ELEMENT MANAGER P. Nair
A. Whiting

CNWRA FORM QAP-8

Surveillance Report 90-003

SATISFACTORY FINDINGS:

A. Preparation of Modified J-13 Water

For test PTVR-14, J-13 water modified with 20ppm. Cl- was prepared as specified in TOP-010, paragraphs 7.3 and 8.1. Test solution pH and chloride concentration were measured using an Orion model EA 920 meter, calibrated before use with buffer (Fisher certified) and KCl solutions, respectively. The stock solutions A and B were prepared on an earlier date and labeled as specified in paragraphs 7.1 and 7.2. The stock solutions were within their expiration date of 6/6/90. Test solutions are being made daily, and are not being carried over. Required data was recorded in the Scientific Notebook.

B. Conduct of Test PTVR-14

1. The test specimen, Incoloy 825 Heat # HH 4371 FC, was machined to Drawing 20-3704-042 and TOP-003, and prepared by polishing and cleaning as specified in TOP-008, paragraph 6.2.1. Dimensions were measured (using micrometer s/n 20-M-1, calibrated 4/23/90 due 10/23/90) and surface area calculated.

2. The test apparatus utilized the EG&G PAR 273 Potentiostat and test cell as described in paragraph 5.1. The reference electrode was checked (using a Keithly 602 electrometer s/n 19831, calibrated 11/21/89 due 11/21/90) against a spare as required in paragraph 5.5 before and after the tests. Differences in potential were less than 3 millivolts.

3. The test cell was deaerated with high purity Argon for one hour before introducing the specimen. After another hour at 95 degrees C., the scanning started. Reverse scanning was initiated manually after approximately 2 1/2 hours. Data required by paragraph 6.2.3 was recorded in the Scientific Notebook.

RECOMMENDATIONS/ACTIONS

A. Test instrumentation used should be identified in the initial entries for the test series by brand, model, serial number, and calibration status. For instruments calibrated before use, such as the pH meter, the buffer and ion standard solutions should be identified by lot or solution i.d. number.

B. All lab prepared solutions, including ion standards and salt bridge solutions, should be labeled in the same fashion as described in TOP-010, paragraph 6. The test solution from test PTVR-13, which was held over from 5/25/90 for a final pH measurement, was stored in an unlabeled bottle, and is required by TOP-010 to be labeled properly. All prepared solutions should be documented by Scientific Notebook entries on their date of preparation, and include Lot numbers of their parent materials and a description of the method of preparation.

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CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES

DEVIATION AND NONCONFORMANCE REPORT

PAGE 1 OF 1

PURCHASE ORDER NO.	PROJECT NO.	JOB REQUEST NO.	DNR NO.
	20-3704-042		90-0087 CS

ITEM NAME OR ACTIVITY	ACTIVITY PERFORMED BY
Cyclic Polarization Tests; PTVR series	IWPE/W. Machowski

ITEM DESCRIPTION (S/N, MODEL, WELD, SITE, ELEMENT NAME, REGULATION, TEST, ETC.)
Cyclic Polarization ASTM G-61 Verification Test

DESCRIPTION OF DEVIATION OR NONCONFORMANCE
Contrary to TOP-008, para 6.1, an ASTM G-61 verification test was not performed before the PTVR series of tests.

PROBABLE CAUSE OF DEVIATION OR NONCONFORMANCE
Unknown

ORIGINATOR (NAME)	DATE
R.D. Brient	5/28/90

ACTION TO CORRECT DEFICIENCY

ACTION TO PREVENT RECURRENCE

CORRECTIVE ACTION TO BE TAKEN BY (NAME)	TARGET DATE FOR INITIATION _____
	OR COMPLETION _____

DISPOSITION ☐ ACCEPT ☐ REWORK ☐ SCRAP ☐ RETURN TO VENDOR ☐ HOLD ☐ OTHER (SPECIFY)

BASIS FOR DECISION OR NOTES

LIST OF ATTACHMENTS	STATUS: ☐ OPEN ☐ CLOSED

ELEMENT MANAGER (SIGNATURE)	DATE	DISTRIBUTION: DIRECTOR OF QA; ORIGINATOR; ELEMENT MANAGER (PROJECT FILES); PERSON RESPONSIBLE FOR CORRECTIVE ACTION _____
DIRECTOR OF QA (SIGNATURE)	DATE	

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