

START

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ENGINEERING CHANGE NOTICE

Page 1 of 3

1. ECN **198886**

Proj.
ECN

| | | | |
|---|--|--|----------------------------------|
| 2. ECN Category (mark one) Supplemental <input checked="" type="checkbox"/> Direct Revision <input type="checkbox"/> Change ECN <input type="checkbox"/> Temporary <input type="checkbox"/> Standby <input type="checkbox"/> Supersedure <input type="checkbox"/> Cancel/Void <input type="checkbox"/> | 3. Originator's Name, Organization, MSIN, and Telephone No. C. M. Lott, 7C420, R1-51, 3-5039 | | 4. Date June 28, 1993 |
| | 5. Project Title/No./Work Order No. 242-A Evaporator Steam Condensate Sampling and Analysis Plan | 6. Bldg./Sys./Fac. No. N/A | 7. Impact Level 3Q |
| | 8. Document Numbers Changed by this ECN (includes sheet no. and rev.) WHC-SD-WM-EV-079, Rev. 2 | 9. Related ECN No(s). 169266 | 10. Related PO No. N/A |

| | | | |
|---|-------------------------------------|---|---|
| 11a. Modification Work <input type="checkbox"/> Yes (fill out Blk. 11b) <input checked="" type="checkbox"/> No (NA Blks. 11b, 11c, 11d) | 11b. Work Package No. N/A | 11c. Modification Work Complete N/A Cog. Engineer Signature & Date | 11d. Restored to Original Condition (Temp. or Standby ECN only) N/A Cog. Engineer Signature & Date |
|---|-------------------------------------|---|---|

12. Description of Change
 Section G.1, The following analytical method changes were made:

EPA Method 6010 was added for the analysis of tin and lead.
 EPA Method 365.4 was added for the analysis of phosphorus.
 EPA Method 335.2 was added for the analysis of total cyanide.
 EPA Method 350.3 was added for the analysis of ammonia.
 The analytical methods for bromide, chloride, and fluoride were changed to EPA Method 300.0.

| | | | |
|-----------------------------------|---|--|--|
| 13a. Justification (mark one) | Criteria Change <input checked="" type="checkbox"/> | Design Improvement <input type="checkbox"/> | Environmental <input type="checkbox"/> |
| As-Found <input type="checkbox"/> | Facilitate Const. <input type="checkbox"/> | Const. Error/Omission <input type="checkbox"/> | Design Error/Omission <input type="checkbox"/> |

13b. Justification Details

The addition of analytical methods were made in order to allow more flexibility in choosing laboratories to perform the analyses. *CMR 8/30/93*

The change from previously specified methods to method 300.0 for chloride, bromide, and fluoride was made because the original methods which were called out were not available on contract. *CMR 8/30/93*

14. Distribution (include name, MSIN, and no. of copies)
 See Attached Distribution

OFFICIAL RELEASE
 BY WHC
 DATE **55 AUG 31 1993**
Sta. 4



9413206-335

ENGINEERING CHANGE NOTICE

| | | | | | | | | |
|---|---|-------------|--------------|--|--|------------------------------|------------------------------|---|
| 15. Design Verification Required <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 16. Cost Impact <table style="width: 100%; border: none;"> <tr> <td style="text-align: center; border: none;">ENGINEERING</td> <td style="text-align: center; border: none;">CONSTRUCTION</td> </tr> <tr> <td style="border: none;">Additional Savings <input type="checkbox"/> \$</td> <td style="border: none;">Additional Savings <input type="checkbox"/> \$</td> </tr> <tr> <td style="border: none; text-align: center;">N/A <input type="checkbox"/></td> <td style="border: none; text-align: center;">N/A <input type="checkbox"/></td> </tr> </table> | ENGINEERING | CONSTRUCTION | Additional Savings <input type="checkbox"/> \$ | Additional Savings <input type="checkbox"/> \$ | N/A <input type="checkbox"/> | N/A <input type="checkbox"/> | 17. Schedule Impact (days) Improvement <input type="checkbox"/> N/A Delay <input type="checkbox"/> |
| ENGINEERING | CONSTRUCTION | | | | | | | |
| Additional Savings <input type="checkbox"/> \$ | Additional Savings <input type="checkbox"/> \$ | | | | | | | |
| N/A <input type="checkbox"/> | N/A <input type="checkbox"/> | | | | | | | |

18. Change Impact Review: Indicate the related documents (other than the engineering documents identified on Side 1) that will be affected by the change described in Block 12. Enter the affected document number in Block 19.

| | | | | | |
|--------------------------------|--------------------------|----------------------------------|--------------------------|-------------------------------|--------------------------|
| SDD/DD | <input type="checkbox"/> | Seismic/Stress Analysis | <input type="checkbox"/> | Tank Calibration Manual | <input type="checkbox"/> |
| Functional Design Criteria | <input type="checkbox"/> | Stress/Design Report | <input type="checkbox"/> | Health Physics Procedure | <input type="checkbox"/> |
| Operating Specification | <input type="checkbox"/> | Interface Control Drawing | <input type="checkbox"/> | Spares Multiple Unit Listing | <input type="checkbox"/> |
| Criticality Specification | <input type="checkbox"/> | Calibration Procedure | <input type="checkbox"/> | Test Procedures/Specification | <input type="checkbox"/> |
| Conceptual Design Report | <input type="checkbox"/> | Installation Procedure | <input type="checkbox"/> | Component Index | <input type="checkbox"/> |
| Equipment Spec. | <input type="checkbox"/> | Maintenance Procedure | <input type="checkbox"/> | ASME Coded Item | <input type="checkbox"/> |
| Const. Spec. | <input type="checkbox"/> | Engineering Procedure | <input type="checkbox"/> | Human Factor Consideration | <input type="checkbox"/> |
| Procurement Spec. | <input type="checkbox"/> | Operating Instruction | <input type="checkbox"/> | Computer Software | <input type="checkbox"/> |
| Vendor Information | <input type="checkbox"/> | Operating Procedure | <input type="checkbox"/> | Electric Circuit Schedule | <input type="checkbox"/> |
| OM Manual | <input type="checkbox"/> | Operational Safety Requirement | <input type="checkbox"/> | ICRS Procedure | <input type="checkbox"/> |
| FSAR/SAR | <input type="checkbox"/> | IEFD Drawing | <input type="checkbox"/> | Process Control Manual/Plan | <input type="checkbox"/> |
| Safety Equipment List | <input type="checkbox"/> | Cell Arrangement Drawing | <input type="checkbox"/> | Process Flow Chart | <input type="checkbox"/> |
| Radiation Work Permit | <input type="checkbox"/> | Essential Material Specification | <input type="checkbox"/> | Purchase Requisition | <input type="checkbox"/> |
| Environmental Impact Statement | <input type="checkbox"/> | Fac. Proc. Semp. Schedule | <input type="checkbox"/> | | <input type="checkbox"/> |
| Environmental Report | <input type="checkbox"/> | Inspection Plan | <input type="checkbox"/> | | <input type="checkbox"/> |
| Environmental Permit | <input type="checkbox"/> | Inventory Adjustment Request | <input type="checkbox"/> | | <input type="checkbox"/> |

19. Other Affected Documents: (NOTE: Documents listed below will not be revised by this ECN.) Signatures below indicate that the signing organization has been notified of other affected documents listed below.

| | | |
|--------------------------|--------------------------|--------------------------|
| Document Number/Revision | Document Number/Revision | Document Number Revision |
|--------------------------|--------------------------|--------------------------|

20. Approvals

| Signature | Date | Signature | Date |
|---|----------------|-----------------------------|-------|
| OPERATIONS AND ENGINEERING | | ARCHITECT-ENGINEER | |
| Cog Engineer * <i>CM Loll / CM Loll</i> | <u>6/30/93</u> | PE | _____ |
| Cog. Mgr. * <i>R.D. Gustin</i> | <u>6/30/93</u> | QA | _____ |
| QA * <i>M. J. ...</i> | <u>7/8/93</u> | Safety | _____ |
| Safety | _____ | Design | _____ |
| Security | _____ | Environ. | _____ |
| Environ. | _____ | Other | _____ |
| Projects/Programs * <i>R. ...</i> | <u>7-20-93</u> | | _____ |
| Tank Waste Remediation System | _____ | | _____ |
| Facilities Operations | _____ | DEPARTMENT OF ENERGY | _____ |
| Restoration & Remediation | _____ | Signature or Letter No. | _____ |
| Operations & Support Services | _____ | | _____ |
| IRM | _____ | ADDITIONAL | _____ |
| Other | _____ | | _____ |

9413206-1336

Analyte ListMethod of AnalysisGraphite furnace atomic absorption (AA) metals

| | |
|--------------------------------|--------------------------------|
| Arsenic | EPA method 7060 |
| Lead | EPA method 7421/6010 |
| Mercury | EPA method 7470 (cold vapor) |
| Selenium | EPA method 7740 |
| Tin | EPA method 7870/6010 |
| Total cyanide | EPA method 9010/9012/335.2 |
| Hexavalent Chromium | EPA method 7196 |
| Bromide | EPA method 300.0 |
| Chloride | EPA method 300.0 |
| Fluoride | EPA method 300.0 |
| Total oil and grease | EPA method 9070 |
| Total phenols | EPA method 9065/9066/9067 |
| Biological oxygen demand (BOD) | EPA method 405.1 |
| Chemical oxygen demand (COD) | EPA method 410.1, .2, .3, .4 |
| Total organic carbon (TOC) | EPA method 9060 |
| Phosphorus | EPA method 365.2, .3, .4 |
| Nitrogen, nitrate, nitrite | EPA method 353.1, .2, .3 |
| Ammonia | EPA method 350.1, .2, .3 |
| Total dissolved solids (TDS) | EPA method 160.1 |
| Total suspended solids (TSS) | EPA method 160.2 |
| Alkalinity | EPA method 310.1/310.2 |
| pH | EPA method 9040 |
| Conductivity | EPA method 9050 |
| Total alpha/beta | WHC approved laboratory method |
| <u>Radionuclides</u> | WHC approved laboratory method |
| Plutonium-238, 239, 241 | |
| Americium-241 | |
| Strontium-89, 90 | |
| Cesium-137 | |
| Ruthenium-103 | |
| Ruthenium-Rhodium-106 | |

The handling and preparation of samples will comply with the procedures found in the, Environmental Investigations and Site Characterization Manual, WHC-CM-7-7. When an analysis requires that a preservative be added to the sample bottle, the preservative is added in a clean laboratory environment prior to traveling to the sampling site. At the time of sample bottle preparation a chain of custody (COC) form will be initiated and will accompany the sample bottle into the field. A COC form will accompany each liquid effluent characterization sample, which may consist of several containers. The COC will account for each container. The sample bottles are stored in a cooler sealed with tamper evident tape and all custody transfers are noted on the bottle COC form.

Once a liquid effluent characterization sample has been drawn it must be in the physical control or view of the custodian, locked in an area where it can not be tampered with, or prepared for shipping with tamper-proof tape applied. Physical control includes being in the sight of the custodian, being in a room which will signal an alarm when entered, or locked in a cabinet.

Disclosed: 1993
6/29/93

INFORMATION RELEASE REQUEST

Reference:
WHC-CM-3-4

Complete for all Types of Release

| | | | |
|---|--|---|--|
| Purpose <input type="checkbox"/> Speech or Presentation <input type="checkbox"/> Full Paper <input type="checkbox"/> Summary <input type="checkbox"/> Abstract <input type="checkbox"/> Visual Aid <input type="checkbox"/> Speakers Bureau <input type="checkbox"/> Poster Session <input type="checkbox"/> Videotape | | (Check only one suffix) <input checked="" type="checkbox"/> Reference <input checked="" type="checkbox"/> Technical Report <input type="checkbox"/> Thesis or Dissertation <input type="checkbox"/> Manual <input type="checkbox"/> Brochure/Flier <input type="checkbox"/> Software/Database <input type="checkbox"/> Controlled Document <input type="checkbox"/> Other | ID Number (include revision, volume, etc.) OGC 198886 ECN- List attachments. SD-WM-EV-079 Rev 2 Date Release Required |
|---|--|---|--|

| | | |
|--|------------------------------|--------------------|
| Title 242-A Evaporator Steam Condensate Sampling and Analysis Plan | Unclassified Category UC- | Impact Level 3Q |
|--|------------------------------|--------------------|

| | |
|---|---|
| New or novel (patentable) subject matter? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes If "Yes", has disclosure been submitted by WHC or other company? <input type="checkbox"/> No <input type="checkbox"/> Yes Disclosure No(s). | Information received from others in confidence, such as proprietary data, trade secrets, and/or inventions? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Identify) |
|---|---|

| | |
|---|---|
| Copyrights? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes If "Yes", has written permission been granted? <input type="checkbox"/> No <input type="checkbox"/> Yes (Attach Permission) | Trademarks? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Identify) |
|---|---|

Complete for Speech or Presentation

| | |
|--------------------------------|-----------------------------|
| Title of Conference or Meeting | Group or Society Sponsoring |
|--------------------------------|-----------------------------|

| | | | |
|----------------------------------|------------|---|---|
| Date(s) of Conference or Meeting | City/State | Will proceedings be published? <input type="checkbox"/> Yes <input type="checkbox"/> No | Will material be handed out? <input type="checkbox"/> Yes <input type="checkbox"/> No |
|----------------------------------|------------|---|---|


Title of Journal

CHECKLIST FOR SIGNATORIES

| Review Required per WHC-CM-3-4 | Yes | No | Reviewer - Signature Indicates Approval | Date |
|---|-------------------------------------|-------------------------------------|---|------------------------------|
| | | | Name (printed) | Signature |
| Classification/Uncontrolled Nuclear Information | <input type="checkbox"/> | <input checked="" type="checkbox"/> | | |
| Patent - General Counsel | <input checked="" type="checkbox"/> | <input type="checkbox"/> | OGC Memo 2/4/93 | |
| Legal - General Counsel | <input checked="" type="checkbox"/> | <input type="checkbox"/> | OGC Memo 2/4/93 | |
| Applied Technology/Export Controlled Information or International Program | <input type="checkbox"/> | <input checked="" type="checkbox"/> | | |
| WHC Program/Project | <input checked="" type="checkbox"/> | <input type="checkbox"/> | D. R. Speer | <i>D. R. Speer</i> 7-20-93 |
| Communications | <input type="checkbox"/> | <input checked="" type="checkbox"/> | | |
| RL Program/Project | <input checked="" type="checkbox"/> | <input type="checkbox"/> | R. L. Higgins | <i>R. L. Higgins</i> 7/27/93 |
| Publication Services | <input checked="" type="checkbox"/> | <input type="checkbox"/> | MK Oldfield | <i>MK Oldfield</i> 7-22-93 |
| Other Program/Project | <input type="checkbox"/> | <input checked="" type="checkbox"/> | | |

Information conforms to all applicable requirements. The above information is certified to be correct.

| | |
|---|---|
| References Available to Intended Audience | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Transmit to DOE-HQ/Office of Scientific and Technical Information | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Author/Requestor (Printed/Signature) | Date |
| C. M. Loll / <i>C.M. Loll</i> | 6/30/93 |

| | |
|--|------------------|
| INFORMATION RELEASE ADMINISTRATION APPROVAL STAMP | |
| Stamp is required before release. Release is contingent upon resolution of mandatory comments. | |
|  | |
| Date Cancelled | Date Disapproved |

| | |
|---|---|
| Intended Audience | <input type="checkbox"/> Internal <input type="checkbox"/> Sponsor <input checked="" type="checkbox"/> External |
| Responsible Manager (Printed/Signature) | Date |
| R. D. Gustavson / <i>R.D. Gustavson</i> | 6/30/93 |

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