

ENGINEERING CHANGE NOTICE

Page 1 of 6

1. ECN ~~126298~~
 Proj. ECN W-016-72

| | | | |
|---|---|--|---|
| 2. ECN Category (mark one) Supplemental <input checked="" type="checkbox"/> Direct Revision <input type="checkbox"/> Change ECN <input type="checkbox"/> Temporary <input type="checkbox"/> Supersedure <input type="checkbox"/> Discovery <input type="checkbox"/> Cancel/Void <input type="checkbox"/> | 3. Originator's Name, Organization, MSIN, and Telephone No. W. A. Holstein, KEH, E6-41, 6-3574 | | 4. Date 10/7/91 |
| | 5. Project Title/No./Work Order No. RMW Storage, PH 2 - 4 | 6. Bldg./Sys./Fac. No. 2403 WB,WC,WD | 7. Impact Level 3 /SC3 |
| | 8. Document Number Affected (include rev. and sheet no.) See Block 12 | 9. Related ECN No(s). N/A | 10. Related PO No. N/A |
| 11a. Modification Work <input type="checkbox"/> Yes (fill out Blk. 11b) <input type="checkbox"/> No (NA Blks. 11b, UNKNOWNc. 11d) | 11b. Work Package Doc. No. UNKNOWN | 11c. Complete Installation Work _____ Cog. Engineer Signature & Date | 11d. Complete Restoration (Temp. ECN only) _____ Cog. Engineer Signature & Date |

12. Description of Change
 (See Block 8)
 H-2-80905, Sh. 1, Rev. 0
 H-2-80907, Sh. 1, Rev. 0
 H-2-80909, Sh. 1, Rev. 0
 Specification W-016H-C3, Rev. 2

APPROVED FOR PUBLIC RELEASE
 5/11/92 N. Solis

- H-2-80905, Sh. 1
 H-2-80907, Sh. 1
 H-2-80909, Sh. 1
 See attached pages 3 and 4 for changes.
- W-016H-C3, Section 16400
 See attached pages 5 and 6 for changes.



| | |
|--|---|
| 13a. Justification (mark one) Criteria Change <input type="checkbox"/> Design Improvement <input checked="" 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 Customer request per LOI 9155805. |
|--|---|

| | |
|--|--|
| 14. Distribution (include name, MSIN, and no. of copies) | |
| KEH DISTRIBUTION Const Doc Cntl E2-50 | J. K. Epperley S0-05 O. A. Halverson R3-10 J. S. Hill [2] H4-57 K. S. McCullough N1-83 D. B. Powell [4] R4-03 J. E. Vanbeek R3-27 DOE A. G. Lassila A5-18 |
| WHC DISTRIBUTION Project Files R1-28 S. R. Briggs(PE) R3-27 T. K. Cordray S1-54 STA 10 A3-87 STA 6 T2-03 | |

RELEASE STAMP

OFFICIAL RELEASE BY WHC

DATE OCT 11 1991

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ENGINEERING CHANGE NOTICE

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1. ECN (use no. from pg. 1)

W-016-72

15. Design Verification Required

Yes
 No

16. Cost Impact

ENGINEERING

Additional \$ 63
Savings \$ _____

CONSTRUCTION

Additional \$ 0
Savings \$ _____

17. Schedule Impact (days)

Improvement 0
Delay _____

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. Samp. 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./Project Engineer <u>A.S. W. [Signature]</u> | <u>10-10-91</u> | PE <u>[Signature]</u> | <u>10/9/91</u> |
| Cog./Project Engr. Mgr. <u>DR. B. [Signature]</u> | <u>10-10-91</u> | QA <u>[Signature]</u> | <u>10/8/91</u> |
| QA <u>[Signature]</u> | <u>10-10-91</u> | Safety <u>[Signature]</u> | <u>10-9-91</u> |
| Safety _____ | _____ | Design <u>[Signature]</u> | <u>10/7/91</u> |
| Security _____ | _____ | Other <u>N/A</u> | _____ |
| Proj. Prog./Dept. Mgr. _____ | _____ | SPEC <u>M.L. [Signature]</u> | <u>10/2/91</u> |
| Def. React. Div. _____ | _____ | ENVIR <u>David Lyle Fort</u> | <u>10/8/91</u> |
| Chem. Proc. Div. _____ | _____ | _____ | _____ |
| Def. Wst. Mgmt. Div. _____ | _____ | DEPARTMENT OF ENERGY | |
| Adv. React. Dev. Div. _____ | _____ | _____ | _____ |
| Proj. Dept. _____ | _____ | _____ | _____ |
| Environ. Div. _____ | _____ | ADDITIONAL | |
| IRM Dept. _____ | _____ | _____ | _____ |
| Facility Rep. (Ops) _____ | _____ | _____ | _____ |
| Other <u>James E. [Signature] (CAMCO)</u> | <u>10/11/91</u> | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |

| QTY | QTY | PT NO | DESCRIPTION | MATL/REF |
|-----|-----|-------|---|----------------------------------|
| | X | 1 | ASSEMBLY | |
| | X | 2 | ASSEMBLY | |
| 1 | 1 | 3 | ENCLOSURE, 48Hx36Wx20D, NEMA 12 | HOFFMAN A-483620LP |
| 1 | 1 | 4 | PANEL, 45Hx33W, FOR USE WITH PN 3 | HOFFMAN A-48P36 |
| 2 | 2 | 5 | FLOOR STAND KIT, FOR USE WITH PN 3 | HOFFMAN A-FK0608 |
| 2 | 2 | 6 | FAN, 240CFM, 115VAC, 33W, W/ AIR PLENUM, FILTER AND GRILL | HOFFMAN A-PA6AXFN |
| 2 | 2 | 7 | FINGER GUARD, FOR USE WITH PN 5 | HOFFMAN A-GARD6 |
| 1 | 1 | 8 | GRILL, FILTER, PACKAGE | HOFFMAN A-EXGR10 |
| 1 | 1 | 9 | AIR MONITOR, CONTINUOUS, BETA-GAMMA | OPERATING CONTRACTOR SUPPLIED |
| 2 | 2 | 10 | AIR PUMP, REGULATED, 1/4HP, 115VAC, 6A, 25" Hg VACUUM | EBERLINE RAP-1 |
| 1 | 1 | 11 | THERMOSTAT, PRESET, 6A AT 120VAC, OPEN AT 80°F, CLOSE AT 95°F (±5°F) WITH MOUNTING BRACKET B209 | ELMWOOD 3001 |
| 1 | 1 | 12 | THERMOSTAT, PRESET, 6A AT 120VAC, OPEN AT 55°F, CLOSE AT 40°F (±5°F) WITH MOUNTING BRACKET B209 | ELMWOOD 3001 |
| 1 | 1 | 13 | HEATER STRIP, 120VAC, 250W, 3/4"Wx18"L WITH 17/32"x11/16" DIA TAB HOLES FOR BUSHING MOUNTING | CHROMALOX SN-1825 |
| 1 | 1 | 14 | BUSHING INSULATION KIT, FOR USE W/ PN 13 | CHROMALOX PCN 255716 |
| 4 | 4 | 15 | RELAY, 120VAC COIL, WITH DPDT AND 2NO 10A CONTACTS | STRUTHERS DUNN 219BBXPLM |
| 4 | 4 | 16 | SOCKET, 12 TERMINAL, FOR PN 15 | STRUTHERS DUNN 27390 |
| 1 | 1 | 17 | SWITCH, PUSHBUTTON, MOMENTARY 1NO-1NC CONTACT, WITH FLUSH BLACK HEAD | CUTLER HAMMER 10250T30B |
| 1 | 1 | 18 | LEGEND PLATE 1/2" ROUND, STANDARD, BLANK | CUTLER HAMMER 10250TM36 |
| 2 | 2 | 19 | SWITCH, SELECTOR, 3 POSITION MAINTAINED 3NO-3NC CONTACTS WITH "MAN OFF AUTO" LEGEND PLATE | CUTLER HAMMER 10250T22KBM68 |
| 2 | 2 | 20 | LIGHT, INDICATING, 120VAC, XFMR TYPE WITH 6V LAMP & WHITE LENS, PRESS-TO-TEST | CUTLER HAMMER 10250T37W |
| 1 | 1 | 21 | TERMINAL BLOCK, 600V, 25A, 12 POINTS | ALLEN BRADLEY 1492-HJB12 |

REVISE

REF: ZN F-1
 H-2-80905 SH 1 REV. 0
 H-2-80907 SH 1 REV. 0
 H-2-80909 SH 1 REV. 0

NOTES:

1. REMOVE FILTER CAP AND INSTALL 1/2" ID CLEAR PVC TUBING (PROVIDED WITH AIR MONITORS, PART NO. 9 & 43) BETWEEN PANEL BULKHEAD (ASSY DETAIL B) AND MONITOR AIR INTAKES.
2. INSTALL 5/16" ID CLEAR PVC TUBING (PROVIDED WITH AIR MONITOR, PART NO. 9 & 43) BETWEEN AIR MONITOR AND AIR PUMP PART NO. 10.
3. RELOCATE BEACON LIGHT AND BELL FROM BETA-GAMMA AIR MONITOR PART NO. 9 AS SHOWN. COVER HOLES PRODUCED BY REMOVAL OF THE LIGHT AND BELL IN THE AIR MONITOR ENCASMENT.
4. ALL DIMENSIONS :
TOLERANCE - $\pm 1/16"$
5. PREPARE AND PAINT IN ACCORDANCE WITH THE REQUIREMENTS OF CONSTRUCTION SPECIFICATION W-016H-C3 SECTION 09900.
6. NAMEPLATE MATERIAL SHALL BE 1/16" THICK LAMINATED PLASTIC STOCK WITH WHITE SURFACE AND BLACK CORE. EDGES SHALL HAVE A 1/32" 45° BEVEL AND SHALL BE SMOOTH AND WITHOUT BURRS. ADHESIVE SHALL BE USED AS A BONDING AGENT. SEE NAMEPLATE LEGEND FOR ENGRAVING AND SIZES.
7. ASSEMBLY 2 SHALL DIFFER FROM ASSEMBLY 1 SUCH THAT PART NUMBER 8 AIR INTAKE ASSEMBLY AND THE ALARM BELL SHALL BE MOUNTED ON OPPOSITE SIDES OF THE ENCLOSURE FROM THAT SHOWN. DIMENSIONS SHALL REMAIN THE SAME. SEE DWG H-2-80921.
8. DELIVER CAMS (PN 9 & 43) FOR CALIBRATION AS DIRECTED BY KEH IN THE FIELD.
9. VENDOR INFORMATION (VI) SHALL BE REQUIRED FOR PARTS 9, 43, & 10 AND SHALL CONTAIN DIMENSIONAL DRAWINGS, EQUIPMENT WEIGHT AND CIRCUIT DIAGRAMS. SUBMITTAL PROCEDURES SHALL BE PER CONSTRUCTION SPECIFICATION W-016H-C3 SECTION 01300.
10. WIRING INSTALLATION AND TESTING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF CONSTRUCTION SPECIFICATION W-016H-C3 SECTION 16400.

DELETE?

REF: EN B-2, C-2

H-2-80905 SH 1 REV. 0
H-2-80907 SH 1 REV. 0
H-2-80909 SH 1 REV. 0

2.2.11 Paging System

2.2.11.1 Amplifier: 35 watts of output power, 100 hertz-10 kHz frequency response, with 2 MIC and 1 AUX inputs, balanced low-impedance microphone inputs, and individual bass and treble controls. Bogen Model C35C.

2.2.11.2 Microphone: Desk type dynamic, omni directional, push-to-talk operation with locking feature, oval impedance, die cast base, and 7'-0" cord. Bogen Model MBS-1000.

2.2.11.3 Speakers, Indoor: 7.5 watt (adjusted for 5 watt operation) variable impedance, with 6 inch diameter projector. Bogen Model SPT-5A.

2.2.11.4 Speaker, Outdoor: 15 watt, variable impedance, weatherproof, with all-purpose mounting bracket. Bogen Model SPT-15A.

2.2.12 Beacon: Flashing, 120V ac, with red acrylic dome, and polished stainless steel parabolic reflectors. Unit shall be weatherproof and designed for mounting on 1/2 inch NPT threaded conduit. Edwards Adaptabeacon Catalog No. 50R.

2.2.13 Bell: Vibrating, weatherproof, 120V ac, 6 inch with back box. Edwards Adaptabel Catalog No. 340-6N5.

2.2.14 Pushbutton Station: Oiltight in cast enclosure, single NO-NC contact block, standard pushbutton without legend plate. Provide nameplate as specified in Paragraph 2.1.5. Cutler-Hammer No. 10250T4342.

2.2.15 Pull Box (PB): Type SG, 12 inch x 12 inch x 6 inch, screwed cover, 14 gage material.

2.2.16 Junction Box (JB): Type SC, 6 inch x 6 inch x 4 inch, screwed cover, 14 gage material.

2.2.17 Air monitor, continuous, Beta-Gamma. Similar to Eberline Model AMS-3. **OPERATING CONTRACTOR SUPPLIED**

2.2.18 Air pump, regulated, 1/4 hp, 115 Vac, 6 amp, 26" hg vacuum. Similar to Eberline Model RAP-1.

2.2.19 Air monitor, continuous, alpha. Similar to Eberline Model Alpha-5A. **OPERATING CONTRACTOR SUPPLIED**

ADD

REVISE
(REF: ECN
W-016-61)

5A

ADD

PART 3 - EXECUTION

3.1 PREPARATION

3.1.1 Field Measurements: Scale dimensions on Drawings show desired and approximate location of equipment; actual locations, distances, and levels shall be governed by field conditions.

