

ENGINEERING CHANGE NOTICE				Preliminary Reissue 3/19/90 Page 1 of 18															
2. ECN Category (mark one) Supplemental ☒ Direct Revision ☐ Change ECN ☐ Temporary ☐ Supersedure ☐ Discovery ☐ Cancel/Void ☒		3. Originator's Name, Organization, MSIN, and Telephone No. GARY L. KOCI, KEH, E6-30, 6-6049		1. ECN 116344 Proj. ECN B-714-26															
11a. Modification Work ☐ Yes (fill out Blk. 11b) ☐ No (NA Blks. 11b, 11c, 11d) UNK		11b. Work Package Doc. No. UNK	11c. Complete Installation Work Cog. Engineer Signature & Date	11d. Complete Restoration (Temp. ECN only) Cog. Engineer Signature & Date															
12. Description of Change BLOCK 5: B-714, GROUT VAULT PAIR (218-E-16-102 & 103) (218-E-16-104 & 105) /ER2007 BLOCK 6: 218-E-16-102 & -103 and 218-E-16-104 & -105 ===== 1) VOID ECN B-714-12 in its entirety. 2) REVISE Specification B-714-C2, Section 01400 as shown on page 3 thru 18 of this ECN.																			
13a. Justification (mark one) Criteria Change ☐ Design Improvement ☒ Environmental ☐ As-Found ☐ Facilitate Const. ☐ Const. Error/Omission ☐ Design Error/Omission ☐		13b. Justification Details CLARIFICATION OF COMMERCIAL GRADE ITEMS																	
																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4" style="text-align: left;">14. Distribution (include name, MSIN, and no. of copies)</th> <th style="text-align: center;">RELEASE STAMP</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="vertical-align: top;"> KEH DISTRIBUTION Engrg Doc Cnt1 E6-52 Const Doc Cnt1 E2-50 Station 10: A3-87 L. Garza A3-80 </td> <td colspan="2" style="vertical-align: top;"> WHC DISTRIBUTION S. R. Briggs(PE) [4] O. A. Halverson J. F. Hill [2] J. R. McGee D. B. Powell [2] W. J. Powell [4] J. E. Vanbeek D. D. Wodrich A. E. Young Project Files DOE A. G. Lassila </td> <td style="vertical-align: top;"> R3-27 R3-09 14-57 S1-54 R1-48 R1-48 R3-27 R1-48 S0-05 R1-28 A5-18 </td> </tr> <tr> <td colspan="4"></td> <td style="text-align: center; vertical-align: middle;"> OFFICIAL RELEASE 48 BY WHC DATE MAR 28 1990 Station #4 </td> </tr> </tbody> </table>					14. Distribution (include name, MSIN, and no. of copies)				RELEASE STAMP	KEH DISTRIBUTION Engrg Doc Cnt1 E6-52 Const Doc Cnt1 E2-50 Station 10: A3-87 L. Garza A3-80		WHC DISTRIBUTION S. R. Briggs(PE) [4] O. A. Halverson J. F. Hill [2] J. R. McGee D. B. Powell [2] W. J. Powell [4] J. E. Vanbeek D. D. Wodrich A. E. Young Project Files DOE A. G. Lassila		R3-27 R3-09 14-57 S1-54 R1-48 R1-48 R3-27 R1-48 S0-05 R1-28 A5-18					OFFICIAL RELEASE 48 BY WHC DATE MAR 28 1990 Station #4
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ENGINEERING CHANGE NOTICE

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

B-714-25

15. Design Verification Required

☒ Yes☐ No

16. Cost Impact

ENGINEERING

Additional ☒ \$ 2800Savings ☐ \$

CONSTRUCTION

Additional ☐ \$ N/ASavings ☐ \$Additional
Engineering
Costs
are offset by
the savings
in the
construction
costs

17. Schedule Impact (days)

Improvement ☐ N/ADelay ☐

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

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

OPERATIONS AND ENGINEERING

Cog./Project Engineer LR Binn 3/21/90Cog./Project Engr. Mgr John Bod 3-21-90QA John Bod 3-21-90Safety NA

Security

Proj. Prog./Dept. Mgr.

Def. React. Div.

Chem. Proc. Div.

Def. Wst. Mgmt. Div.

Adv. React. Dev. Div.

Proj. Dept.

Environ. Div.

IRM Dept.

Facility Rep. (Ops)

Other

Signature

Date

ARCHITECT-ENGINEER

PE K C Bingham 3/19/90 3/16/90QA TD 3/19/90 3/16/90Safety T Jundgren 3-17-90 3-16-90Design RL 3/19/90 3-14-90Other RL 3/19/90 3-14-90RL 3/19/90 3-14-90RL 3/19/90 3-14-90RL 3/19/90 3-14-90

DEPARTMENT OF ENERGY

ADDITIONAL

CHANGES TO SPECIFICATION B-714-C21) SECTION 01400

A) Replace para 1.3.1.4.a as follows:

Include or reference appropriate technical and quality requirements, including quality assurance records, in documents for procurement of items or services. Procurement documents shall require each sub-contractor and supplier to have a QAP consistent with elements of this specification section which apply to their product or service. Procurement documents shall include inspection, testing, and acceptance requirements for each specific scope of work and requirements for monitoring/evaluation of sub-contractor/supplier performance. Procurement documents shall also include requirements for reporting and approving the disposition of nonconformances. QAP controls for specific contract activity are listed by specification section as follows:

B) Add para 1.3.1.4.a.1) & 1.3.1.4.a.2) as follows:

1.3.1.4.a.1) All contract activities in the following specification sections and listed drawings require Procurement controls, which include the qualification of sub-contractor(s) and supplier(s). However, specific designation and criteria for materials that may be procured as "Commercial Grade Items" (CGIs) in the following specification sections and listed drawings are described in Appendix A to Section 01400. All fabrication, assembly, inspection, testing and similar activities, whether performed on or off site, shall be controlled by contractor(s)/supplier(s) QAP(s) which meet applicable requirements of Section 01400 1.3.

DIVISION 3 - CONCRETE

Section 03301 Vault and Basin Cast-In-Place Concrete
(Includes materials referenced in other sections and part of vault concrete structure.)

DIVISION 9 - FINISHES

SECTION 09885 Protective Coating for Concrete Vault Interior

DIVISION 13 - SPECIAL CONSTRUCTIONS

Section 13440 Instrumentation
(Vault Thermocouples)

DIVISION 16 - ELECTRICAL

Section 16400 Service and Distribution (600-Volt and Below)
(Leak Detection Instrumentation and Interlocks)

Drawings (See Appendix A - CGI Listing)

- 1.3.1.4.a.2) All contract activities in the following specification sections and listed drawings require procurement of commercially available materials, components or equipment. The procurement of these items can be accomplished using standard procurement practices which includes procurement through commercially available sources. Contractor shall provide all other procurement controls except the qualification of suppliers. All other fabrication, assembly, inspection, testing, and similar activities whether performed on or off-site shall be controlled by contractor(s)/supplier(s) QAP(s) which meet the applicable requirements of Section 01400 1.3.

DIVISION 2 - SITEWORK

- Section 02145 Diffusion Barrier
- Section 02147 Diffusion Break
- Section 02200 Earthwork
- Section 02512 Hot-Laid Asphaltic Concrete Pavement
- Section 02752 Leachate Collection Sump Liner
- Section 02753 Exterior Drainage Path
- Section 02755 Waste Disposal Basin Liners
- Section 02756 Leachate Collection System

DIVISION 3 - CONCRETE

- Section 03300 Cast-In-Place Concrete
- Section 03419 Precast Prestressed Concrete Sections

DIVISION 5 - METALS

- Section 05500 Metal Fabrication
(Other than materials, or components that are part of Vault Concrete Structure)

DIVISION 9 - FINISHES

- Section 09805 Special Protective Coating

DIVISION 15 - MECHANICAL

- Section 15493 Chemical Process Piping Systems

DIVISION 16 - ELECTRICAL

- Section 16300 High voltage Distribution (Above 600-Volt)
- Section 16400 Service and Distribution (600-Volt and Below)
(Other than Leak Detection Instrumentation and Interlocks)
- Section 16644 Cathodic Protection

Drawings (All other drawings not on CGI Listing)

C) Add Appendix A and Commercial Grade Items Tables as follows:

APPENDIX A

"COMMERCIAL GRADE ITEMS"

For applicable work identified in 1.3.1.4 (a) (1)

The listed items by Specification Section or drawing number are considered "Commercial Grade Items" (CGI) and the requirements for implementing as part of the QAP include:

1. If an alternate or substitute item is requested, an evaluation will be performed by KEH to determine if the substitute item meets the design criteria or function.
2. Where determined necessary by the Contractor, source evaluation and selection shall be performed.
3. Commercial Grade Items shall be identified in the purchase order by the manufacturer's published product description code or standard reference and/or part number.
4. Commercial Grade Items shall be receipt inspected per specified criteria in contract documents and this Appendix to determine:
 - . Damage was not sustained during shipment.
 - . Item received was the item ordered.
 - . Inspection and testing is accomplished as required to assure conformance with the manufacturer's published requirements and specific receipt inspection criteria.
 - . Documentation as applicable to the item is received and is acceptable.
5. Testing/Verification as required by this appendix.
6. Document required Tests/Verification using approved documentation forms in contractor(s) QAP. Submit 1 copy with the QA Plan documentation in accordance with Section 01720.

Only those items listed are considered "CGI". All other items, components, and materials shall be procured in accordance with the Contractors QAP which shall be consistent with the applicable elements of this Section, Article 1.3 and requires the contractor to perform appropriate source evaluation and selection.

SPEC/DWG REF	ITEM DESCRIPTION	ACCEPTABLE VALUE, CONDITION OR TOLERANCE	METHOD OF VERIFICATION	SAMPLE SIZE
B-714-C2 03301 2.1.1.1	ASTM A 615, Gr 60 Reinforcing Bar	1. Dimensions 2. Tensile strength/steel grade; 60,000 PSI minimum 3. Identification 4. Finish	1. Visual, scale 2. Document review of manu- facturers Material Certi- fication w/traceability to delivered material thru tag on each bundle. 3. Visual, purchase order number and project number on each tag. 4. Visual: deformities, de- trimental surface imper- fections. Rust, seam or mill scale are acceptable if the dimensions of a hand wire brushed speci- man meet the above re- quirements.	1 bar per bundle 100% of each CMTR 100% 10% of bars in a bundle
2.1.1.2	Tie Wire	1. Diameter: 16 gage; 0.06" minimum 2. Material - ferrous steel	1. Measure 2. Test: strongly magnetic	Free end of each roll Each roll

SPEC/DWG REF	ITEM DESCRIPTION	ACCEPTABLE VALUE, CONDITION OR TOLERANCE	METHOD OF VERIFICATION	SAMPLE SIZE
B-714-C2 03301 2.1.1.4	Mechanical Couplers	1. Dimensions: Inside diameter and length 2. Identification: Catalog number or color code 3. Tensile strength per 2.1.1.4, minimum of 75,000 PSI 4. Chemical composition per ASTM A 519 and Tensile strength per 2.1.1.4, minimum 75,000 PSI	1. Measure and verify with manufacturers data for each bar size. 2. Visual: Catalog number or color on each coupler for each bar size. 3. Test: Send coupler to independent test lab for physical verification. 3&4. Document review of manufacturers Material Certification traceable to delivered material via marking on each coupler.	10% 100% 1 coupler per heat or lot of material received 100% of each CMTR
2.1.3	Waterstops	1. Dimensions: Thk +/- 1/32" 2. Tensile strength (steel grade ASTM A 36)	1. Visual and measure 2. Document review of manufacturers Material Certification with traceability to delivered material thru tag or mark number on each piece.	10% 100% of each CMTR

SPEC/DWG REF	ITEM DESCRIPTION	ACCEPTABLE VALUE, CONDITION OR TOLERANCE	METHOD OF VERIFICATION	SAMPLE SIZE
B-714-C2 03301 2.1.4.1 2.1.4.2 2.1.4.3	Concrete curing	Thickness and material type	Visual, compliance with nominal requirements of ASTM C 171	Roll
2.1.5	Bonding agents	03301 - 2.1.5.1, 2.1.5.2 specified values	Manufacturers data and ASTM reference	Lot
2.1.9	Neoprene bearing pad	1. Thickness: $\frac{1}{2}$ " to 1" +/- 1/16"	Measure	3 random locations per sheet
		2. Hardness: Shore A, 50 +/- 5 points Shore A, 40 +/- 5 points	Durometer Test	1 random location per sheet
		3. Material: Color is black	Visual	100% of each sheet

SPEC/DWG REF	ITEM DESCRIPTION	ACCEPTABLE VALUE, CONDITION OR TOLERANCE	METHOD OF VERIFICATION	SAMPLE SIZE
B-714-C2 09885 2.1.1.1 & 2.1.1.2	Nokorode 705M Coating by Lion Oil Co.	1. Bears label showing product name, manufacturer's name, and batch number. 2. Percent of volatile and nonvolatile materials and percent of component parts of each type of material 3. Component chemical analysis and physical properties for each lot number used.	1. Ensure packages bear proper label. Ensure shelf life has not exceed 18 months. 2. Document review to assure percent volatile/nonvolatile and percent of components parts listed 3. Document review to assure chemical and physical analysis reported for each lot.	Each container 100% of all list of materials 100% of each CMTR
	Naptha/mineral spirits	Product bears label showing type of product	Visual: Ensure container bears label indicating type of product.	Each container

APPENDIX A

CGI LISTING

PROJECT B-714

SPEC/DWG REF	ITEM DESCRIPTION	ACCEPTABLE VALUE, CONDITION OR TOLERANCE	METHOD OF VERIFICATION	SAMPLE SIZE
16300 2.1.2.1	PVC Conduit	Dimensions: Per UL651 Schedule 40	Measure diameter with caliper Visual: Conduit marked with SCH 40 or measure wall thick- ness with caliper	10%
2.2.5	Manhole	Identification: ARCO Concrete, Cat #6060-7 Material: Concrete Configuration: As shown in manufacturer's catalog	Visual: Gray color, masonry type material Visual: Embedded channel, Pulling eyes, ring and cover	100%
16400 2.1.1.1	Terminal Lugs	Identification: T & B Sta-Kon Material: Metal and plastic	Visual: Identification of manufacturer on lug Visual: Insulated sleeve, ring or spade type	10%
2.1.2.1	Rigid Steel Conduit	Dimensions: Per ANSI C80.1-1983	Measure diameter with caliper Visual: Conduit marked Rigid Metal Conduit or measure wall thickness with caliper	10%
2.1.2.1	PVC Conduit	Dimensions: Per UL651 Type II Schedule 40	Same as 16300 2.1.2.1	10%
2.1.2.2	Rigid Steel Conduit, PVC coated	Dimensions: Per ANSI C80.1-1983 (Type A-40)	Measure diameter with caliper Visual: Blue PVC coating over all without any voids Measure wall thickness with caliper	10%
2.1.2.1	KYNAR Conduit Schedule 80	Identification: 3" LG x 1" Dia nipple, Dimensions: Per mfg catalog data	Measure diameter, wall thick- ness and length with caliper	10%

SPEC/DWG REF	ITEM DESCRIPTION	ACCEPTABLE VALUE, CONDITION OR TOLERANCE	METHOD OF VERIFICATION	SAMPLE SIZE
2.1.2.3	Conduit Fittings	Dimensions: Per ANSI C80.1-1983 and UL651	Measure diameter with caliper Measure wall thickness with caliper, Visual: Blue PVC coating over all for PVC coated fittings	10%
2.1.2.5	Watertight Fittings	Same as above	Same as above	10%
2.1.4	Leak Sensing and Locating Cable	Identification: Raychem, Tracetek Cat. No. TT300-MSC Configuration: as described in manufacturers catalog.	Visual: Catalog No. on shipping container	100%
2.1.4.1-3	Leak Sensing Cable Accessories	Identification: Raychem, Tracetek Cat. No. TT300-MJC, TT300-MET, and TT300-RPT	Visual: Catalog No. on shipping container	10%
2.1.5	Wiremarkers	Material: Tubular Plastic	Visual: Tubular Plastic white or ivory in color	10%
2.1.6	Nameplates	Material: Phenolic	Visual: Phenolic, white laminated to black core	10%
2.1.8	Wire Pulling Compound	Identification: Mfg: Y-ER-EAS by Electro Com- pound Co. or Polywater by American Polywater Corp.	Visual: Description on con- tainer "Y-ER-EAS" or Polywater	100%
2.1.9.2	Conduit Protection Tape	Identification: Mfg: 3M, Scotchrap No. 50 Material: Plastic, Black	Visual: Catalog No. on on container, Scotchrap No. 50	10%
2.1.11	Duct Sealing Compound	Identification: Mfg: Porcelain Products "Sealex" or Kerite Co. "Kerite"	Visual: Description on container, "Sealex" or "Kerite"	100%

SPEC/DWG REF	ITEM DESCRIPTION	ACCEPTABLE VALUE, CONDITION OR TOLERANCE	METHOD OF VERIFICATION	SAMPLE SIZE
2.2.2.1	Terminal Blocks	Identification: Mfg: Marathon or Buchanan Configuration: As shown in mfg catalog.	Visual: Document review to assure P.O. and items received agree	10%
2.2.3	Annunciator	Identification: Mfg: Ronan X 12 Series or similar	Visual: Mfg type label on item Visual: 56 light boxes, "Acknowledge" and "Test" buttons in cover, horn in cover Document review to assure P.O. and item received agree	100%

SPEC/DWG REF	ITEM DESCRIPTION	ACCEPTABLE VALUE, CONDITION OR TOLERANCE	METHOD OF VERIFICATION	SAMPLE SIZE
H-2-77637	Terminal Box Detail #3, 4, 5 & 7	Identification: Mfg: Hoffman Engr Co. Cat. No. as indicated on dwg	Visual: Catalog No. on item Color: Gray outer, white interior panel	100%
H-2-78503	Terminal Box Detail #3 & 7	Same as above	Same as above	100%
H-2-77638 Sh. 1	Conduit Spacer	Identification: Mfg: Carlon, Material: Plastic	Visual: Mfg name on item or shipping container	10%
H-2-78504 Sh. 1	Conduit Spacer	Identification: Manufacturer Material: Plastic	Same as above	10%
H-2-77638 Sh. 1 H-2-78504 Sh. 1	Cadweld Connectors (Note 12)	Identification: Mfg: Erico Products Inc. Cadweld Material: Per mfg catalog data	Visual: Mfg name on items or on shipping container Document review to assure P.O. and items received agree	10%
H-2-77638 Sh. 1 H-2-78504 Sh. 1	Tube Clamps (Note 12)	Identification: Mfg: Unistrut Cat. No. P2014 Material: Electro-galvanized steel	Visual Cat. No. on item or on shipping container	10%
H-2-77638 Sh. 3 H-2-77639 Sh. 1&2 H-2-77640 H-2-78504 Sh. 3 H-2-78505 Sh. 1&2	Unistrut P1001 Channel	Identification: Mfg: Unistrut Cat. No. P1001 Material: Electro-galvanized steel	Visual: Mfg Cat. No. on item or tag	10%

SPEC/DWG REF	ITEM DESCRIPTION	ACCEPTABLE VALUE, CONDITION OR TOLERANCE	METHOD OF VERIFICATION	SAMPLE SIZE
H-2-77638 Sh. 3 H-2-78504 Sh. 3	Pull Box Details #5 & 14 Elevations J & K	Identification: Mfg: Crouse-Hinds Cat. No: WJB181206 Material: Feraloy, Hot-dip- ped galvanized	Visual: Mfg Cat. No. on item or on shipping container Color: Silver	100%
H-2-77638 Sh. 3 H-2-77639 Sh. 1&2 H-2-77640 H-2-78504 Sh. 3 H-2-78505 Sh. 1&2	Backplates	Identification: 12 guage minimum thickness, steel, Dimensions: As shown on the drawings	Measure: Use caliper for thickness and tape for length and width	100%
H-2-77639 Sh. 1&2 H-2-78505 Sh. 1&2	Transformer, 3KVA	Identification: Rating: 240/480-120/240VAC, 3KVA	Visual: Rating 240/480 - 120/240VAC, 3KVA	100%
H-2-77639 Sh. 1&2 H-2-78505 Sh. 1&2	Instrument Pull Box I-PB-102-2&I-PB-103-2 I-PB-104-2&I-PB-105-2	Identification: Mfg: Crouse-Hinds Cat. No. WJB241208 Material: Feraloy, hot-dip- ped galvanized	Visual: Mfg Cat. No. on item or on shipping container Color: Silver	100%
H-2-77639 Sh. 1&2 H-2-78505 Sh. 1&2	Enclosure 16" x 12" x 6"	Identification: Mfg: Hoffman Engr. Co. Cat. No. A-16H12ALP Material: 14 gauge steel	Visual: Mfg Cat. No. on item Color: Gray out, white interior panel	100%

SPEC/DWG REF	ITEM DESCRIPTION	ACCEPTABLE VALUE, CONDITION OR TOLERANCE	METHOD OF VERIFICATION	SAMPLE SIZE
II-2-77639 Sh. 1&2 II-2-78505 Sh. 1&2	Horn	Identification: Mfg: Edwards, Cat. No. 876-N5	Visual: Mfg Cat. No. on item or on shipping container	100%
H-2-77639 Sh. 1&2 H-2-78505 Sh. 1&2	Pilot Light	Identification: Mfg: Square D Co. Cat. No. 9001-KT-1R6 Red Lens	Visual: Mfg Cat. No. on shipping container, Red Lens	100%
H-2-77639 Sh. 1&2 II-2-78505 Sh. 1&2	Solid State Relay	Identification: Mfg: B/W Controls Cat. No. 5200-IIF2-N4 Inverse operation with electrode ckt monitor Configuration: As shown on mfg catalog data Voltage: 120VAC input Operability: Contacts change state when energized and deenergized	Visual: Mfg Cat. No. on item agrees with P.O. Test at receipt: energize relay and verify contact change by use of a volt- ohmmeter. Deenergize and verify contacts return to shelf position. Perform test on all contacts.	100%
H-2-77639 Sh. 1&2 H-2-78505 Sh. 1&2	Fuse Block 1 Pole	Identification: Mfg: Gould Shawmut Cat. No. 30311R Configuration: As shown on mfg catalog data	Visual: Mfg Cat. No. on item or on shipping container	100%
II-2-77639 Sh. 1&2 II-2-78505 Sh. 1&2	Fuse	Identification: Mfg: Gould Shawmut Cat. No. ATMR20 Type: Cartridge, UL Class CC 600VAC, 20amp Dimensions: 1 1/2" x 13/32	Visual: Mfg Cat. No. on item Data on item Measure with caliper	100%

SPEC/DWG REF	ITEM DESCRIPTION	ACCEPTABLE VALUE, CONDITION OR TOLERANCE	METHOD OF VERIFICATION	SAMPLE SIZE
I-2-77639 Sh. 1&2 I-2-78505 Sh. 1&2	Ground Clamp Connector	Identification: Mfg: Penn-Union Cat. No. GM-4 Material: Bronze bolt, nut and lockwasher and clamp	Visual: Mfg Cat. No. on shipping container Metal, yellowish in color	100%
I-2-77640	Transformer, 750VA	Identification: Rating: 240/480 - 120/240VAC 750VA	Visual: Rating 240/480 - 120/240VAC, 750VA	100%
I-2-77640	Enclosure 10" x 8" x 4"	Identification: Mfg: Hoffman Engr. Co. Cat. No. A-1008CINF W/PNL A-10P8 Material: 14 gauge steel	Visual: Mfg Cat. No. on item Color: Gray out, white inside panel	100%
I-2-77640	Fuse Block 2 Pole	Identification: Mfg: Gould-Shawmut Cat. No. 30312R Configuration: As shown on Mfg catalog data	Visual: Mfg Cat. No. on item or on shipping container	100%
I-2-77640	Fuse	Identification: Mfg: Gould-Shawmut Cat. No. ATMR3 Type: Cartridge, UL class CC 600VAC, 3 amp Dimensions: 1½" x 13/32"	Visual: Mfg Cat. No. on item Measure with caliper	100%

SPEC/DWG REF	ITEM DESCRIPTION	ACCEPTABLE VALUE, CONDITION OR TOLERANCE	METHOD OF VERIFICATION	SAMPLE SIZE
H-2-77641 H-2-78507	Wire Type 1	Identification: Marking: Marked THHN or THHN/THWN or XHHW, 600VAC #12 AWG (in any order) Insulation: Thermoplastic, 600VAC, Nylon jacket on types THHN and THHN/THWN XHHW-no jacket Conductor: Solid Copper	Visual: Marking on wire, THHN, THHN/THWN, or XHHW, 600VAC, #12 AWG Visual: Thermoplastic with nylon jacket on types THHN and THHN/THWN, no jacket on type XHHW Visual: Solid copper	10%
H-2-77641 H-2-78507	Wire Type 2	Identification: Mfg: Rockbestos Type: TC (Tray Cable) Firewall III, 600VAC No. of conductors: As shown on dwgs	Visual: Marked Rockbestos, type TC, Firewall III and No. of conductors as shown on dwgs	10%
H-2-77641 H-2-78507	Wire Type 9	Identification: Material: uninsulated galvanized steel Size: 5/8" in diameter	Visual: Uninsulated galvanized steel Measure using tape	10%
H-2-77638 Sh. 1 H-2-78504 Sh. 1	Grounding conductor (Note 8)	Identification: Same as above	Same as above	10%
H-2-77642 Sh. 1	Cable Connectors J-LDK-LP-102-1 J-LDK-LP-01-2 J-LDK-LP-01-3	Identification: Mfg: ITT-Cannon Cat. No: CA-3102E-14S-7P-F80 CA-3106F-14S-7S-F80 CA-3106F-14S-7P-F80 Configuration: As shown on manufacturers catalog data	Visual: Mfg Cat. No. on item	100%

SPEC/DWG REF	ITEM DESCRIPTION	ACCEPTABLE VALUE, CONDITION OR TOLERANCE	METHOD OF VERIFICATION	SAMPLE SIZE
I-2-77642 Sh. 2	Cable Connector J-LDK-LP-103-1	Identification: Mfg: ITT-Cannon Cat. No. CA-3101E-14S-7P-F80	Visual: Mfg. Cat. No. on item	100%
I-2-78508 Sh. 1&2	Cable Connector J-LDK-LP-104-1 J-LDK-LP-105-1	Identification: Mfg: ITT-Cannon Cat. No. CA-3101E-14S-7P-F80	Visual: Mfg Cat. No. on item	100%