



SHIELD BOX ASSEMBLY ISOMETRIC  
SCALE: NONE

PARTS/MATERIAL LIST								
QTY	QTY	PART/DASH NUMBER	NOMENCLATURE/DESCRIPTION	MATERIAL/REFERENCE	SHT	ITEM NO		
-020	-010							
		-010	SHIELD BOX ASSEMBLY			2	1	
	1	-020	SHIELD BOX WELDMENT			3	2	
2		-001	SIDE PLATE, 4" THK	ASTM A36		4	3	
1		-002	FRONT PLATE, 4" THK	ASTM A36		4	4	
1		-003	BACK PLATE, 4" THK	ASTM A36		4	5	
1		-004	TOP PLATE, 4" THK	ASTM A36		4	6	
AR			FLAT BAR, 4 X 4 X LAR	ASTM A36			7	
AR			FLAT BAR, 2 X 1 X LAR	ASTM A36			8	
	4	46004-C	SWIVEL HOIST RING, 5/8-11 UNC, 4,000 LBS, CADMIUM PLATED	ACTEK			9	

GENERAL NOTES: (UNLESS OTHERWISE SPECIFIED)

- DIMENSIONS ARE IN INCHES. TOLERANCES: FRACTIONS ±1/16; DECIMALS: .015; ANGULAR: ±3°
- ESTIMATED DRY ASSEMBLY WEIGHT: 5,400 LBS
- BREAK ALL SHARP EDGES, REMOVE ALL BURRS. ROUND ALL EDGES THAT MAY CONTACT HOSE.
- PREPARE AND PAINT ALL EXPOSED CARBON STEEL SURFACES WITH PPG PAINT PSX700 OR EQUIVALENT. FINISH COLOR SHALL BE WHITE. APPLY PAINT PER MANUFACTURER'S SPECIFICATIONS. POWDER COAT IS AN ACCEPTABLE COATING SYSTEM.
- WELD AND INSPECT STRUCTURAL WELDS PER AWS D1.1 STATICALLY LOADED STRUCTURE, VT FINAL PASS. WELDING PROCEDURES AND WELDER QUALIFICATIONS PER ASME SECTION IX ARE ACCEPTABLE.

ACTEK SWIVEL HOIST RING NOTES:

- ALL SWIVEL HOIST RINGS SHALL BE AS MANUFACTURED BY ACTEK MANUFACTURING AND ENGINEERING, INC. INSTALL/RE-INSTALL THESE HOIST RINGS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS EXCEPT AS AMENDED AND DOCUMENTED IN VENDOR INFORMATION FILE #VI-50159. THE MANUFACTURER'S AMENDED INFORMATION AND/OR OTHER RELEVANT INFORMATION IS DESCRIBED IN THE FOLLOWING NOTES.
- ALL STEEL COMPONENTS ENGAGING THE HOIST RINGS SHALL HAVE MINIMUM TENSILE STRENGTHS OF 58,000 PSI.
- ALL ACTEK HOIST RING SCREW THREADS ARE CLASS 2A, THEREFORE, ALL TAPPED THREADS SHALL BE MATCHING CLASS 2B.
- PRIOR TO ITS USE, EACH HOIST RING SHALL BE TIGHTENED TO TORQUE VALUE AS SHOWN BELOW:

ACTEK HOIST RING PART NUMBER	SCREW SIZE	RATED LOAD (LBS)	TORQUE FT-LBS (±10%)
46004-C	5/8-11UNC	4,000	60

- IF "ANTI-SEIZE" LUBRICANT IS PRESENT IN THE THREADS OF THE HOIST RING SCREW OR IN THE TAPPED THREADS, IT MUST BE REMOVED WITH ACETONE OR ANOTHER VENDOR APPROVED SOLVENT.
- INSPECTION OF HOIST RINGS SHALL MEET MANUFACTURER'S AND HANFORD SITE HOISTING AND RIGGING MANUAL (DOE-RL-92-36) REQUIREMENTS.
- COLD WEATHER: HOIST RINGS SHALL BE WARMED (NOT HOT) TO ABOVE 10 °F PRIOR TO THEIR USE. HOIST RINGS WARMED DURING INSTALLATION MUST HAVE THEIR TORQUE RE-CHECKED PRIOR TO USE. HOIST RINGS SHOULD BE REMOVED AND KEPT IN A WARM LOCATION DURING EXTENDED COLD WEATHER USE.

7 AFTER FINAL FABRICATION LABEL PUMP PIT SHIELD BOX ASSEMBLY WITH ASSEMBLY NAME, DRAWING NUMBER AND ACTUAL WEIGHT USING 1" HIGH BLACK CHARACTERS. APPLY VINYL LETTERING OR PAINT APPROXIMATELY AS SHOWN.

8 SEE RPP-CALC-62204 FOR STRUCTURAL ANALYSIS. SEE RPP-CALC-62207 FOR SHIELDING ANALYSIS.

9 AFTER FINAL FABRICATION LABEL PUMP PIT SHIELD BOX ASSEMBLY WITH CENTER OF GRAVITY USING 2" DIAMETER SYMBOL. APPLY VINYL OR PAINT APPROXIMATELY AS SHOWN.

**DATE:**  
**Sep 19, 2019**  
**HANFORD RELEASE**

DWG NUMBER	TITLE	REF NUMBER	REFERENCES	REV	DESCRIPTION
H-15-7	A-FARM WRS AP PIT MODELS				
H-14-111014	DRAWING LIST & TITLE SHEET			0	RELEASED PER EDT-882262
DRAWING TRACEABILITY LIST		REF NUMBER	TITLE	REV	DESCRIPTION
		NEXT USED ON	H-14-111023		REVISIONS

BLDG. NO. 241-A	CAUTION: NOT COMPLETE WITHOUT CURRENT CHANGE DOCUMENTS FROM DATABASE	U.S. DEPARTMENT OF ENERGY Office of River Protection
DESIGNER H. A. MENDEZ	DATE 9/19/19	A-FARM RETRIEVAL SUPERNATE PUMP PIT SHIELD BOX ASSEMBLY
DRAWING ENGINEER J. R. BYERS	DATE 9/19/19	DWG NUMBER H-14-111034
DESIGN CHECKER T. R. BYERS	DATE 9/19/19	SHEET 1
DESIGN AUTHORITY C. H. ANDERSON	DATE 9/19/19	REV 00
SCALE SHOWN 1:3974		DOE-TL-FDWG (MAY 2018)