

ATTACH 'B'

SNES 90-0532

B. 12/73



CUSTOMER	FLORIDA POWER CORPORATION
PRODUCT	CONTAINER 45.34 LBS
ASSEMBLY	CRASHAL CORP, FLORIDA
DESCRIPTION	CONTAINER 45.34 LBS

1. NAME _____

PROCEDURE

PAGE NO. 1
 OF 1
 10-11-68

0.1 Summary

4b to be patrolled by C-130.

1.0 PERSONNEL

The requirements are specified herein to ensure applicant has by suitably experienced personnel.

2.0 APPARATUS

- 2.1 Halogen Leak Detector (aka. Type II-7 or equal,
2.2 Standard leak of at least 100 std. cc./sec.
2.3 Pressurized air
2.4 Neon gas
2.5 Air & Halogen Control Panel (Piping Assembly)

3.0 PROCEEDINGS

- 3.1 After completion of a successful vacuum box test, the welds shall be covered by test channels as indicated on the drawings.
- 3.2 All test channel welds must be free of dirt, dust, oil and water.
- 3.3 To prove the structural adequacy of the test channel and test channel welds, using the piping arrangement shown on Sketch A, pressurize the test channel with 42 psig of air and hold for 15 minutes. Then release the pressure to 42 psig and apply a soap film to the welds. If any

CUSTOMER APPROVAL


1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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9008120101 900816
PDR ADOCK 05000302
D PDC

ATTACH 'B'

SWES 90-0532

Re. 19/73

		HALOGEN LEAK TEST PROCEDURE	
CUSTOMER	FLORIDA POWER CORPORATION	PROJECT NO.	HLA-11
POB	CONTAINMENT VESSEL (ITER)	PAGE NO.	2 OF 3
ASSEMBLY	CRYSTAL RIVER, FLORIDA	DATE	7-28-70
DESCRIPTION	CONTRACT 69 1371	REVISION NO.	0

leaks are found, release the pressure to 0 psig and repair the weld and retest.

- 3.4 A. After successful completion of the ramp fill, release the pressure to 0 psig and close Valve "A".
- B. Close Valves "C" and "D".
- C. Be sure that there are no leaks in the test connections before pressurizing with Freon to minimize contamination in the testing area.
- D. Open Valve "A" and pressurize the test channel with Freon to about 5 psig (about 0.2 ounces of Freon per cubic foot of air by weight).
- E. Close Valve "A" and slowly open Valve "C" and pressurize with air to 42 psig.
- F. Close Valve "C" and "D".

- 3.5 Test the channel welds with a Halogen Leak Detector C. E. Type H-2 or equal, at a probe rate of about 2-1/2 feet/minute. The probe nozzle must be within 1/2" of the weld while testing for leaks. The sensitivity of the leak detector shall be tuned to maximum sensitivity at the start of a testing period. The sensitivity shall also be checked every two hours using a calibrated leak of at least 1 x 10⁻⁵ std. cc/sec. If any leaks are found, release the pressure through Valve "D" and the exhaust line to exhaust the Freon-air mixture to an area outside the vessel to avoid contaminating the testing area with Freon gas. Repair the leaks found then retest the section.

- 3.6 At the completion of the Halide Test on the test channel section, open Valve "D" and "C" and exhaust the Freon-air mixture through a rubber line to an area outside the vessel (testing) area to avoid contamination.

- 3.7 Flush the Freon from the test channel section through Valve "D" and exhaust line by pressurizing the test section several times with air through Valve "C" to remove the Freon from the test section.

- 3.8 A. Close Valve "A" and pressurize test section with air to 67 psig; and close Valve "D".

1. Record the following:

- a. Pressurization from Ambient
- b. Time (beginning to end of test)
- c. Temperature (beginning to end of test)
- d. Pressure on both dial gauges ("A" & "D")



HAZARDOUS LEAK TEST PROCEDURE

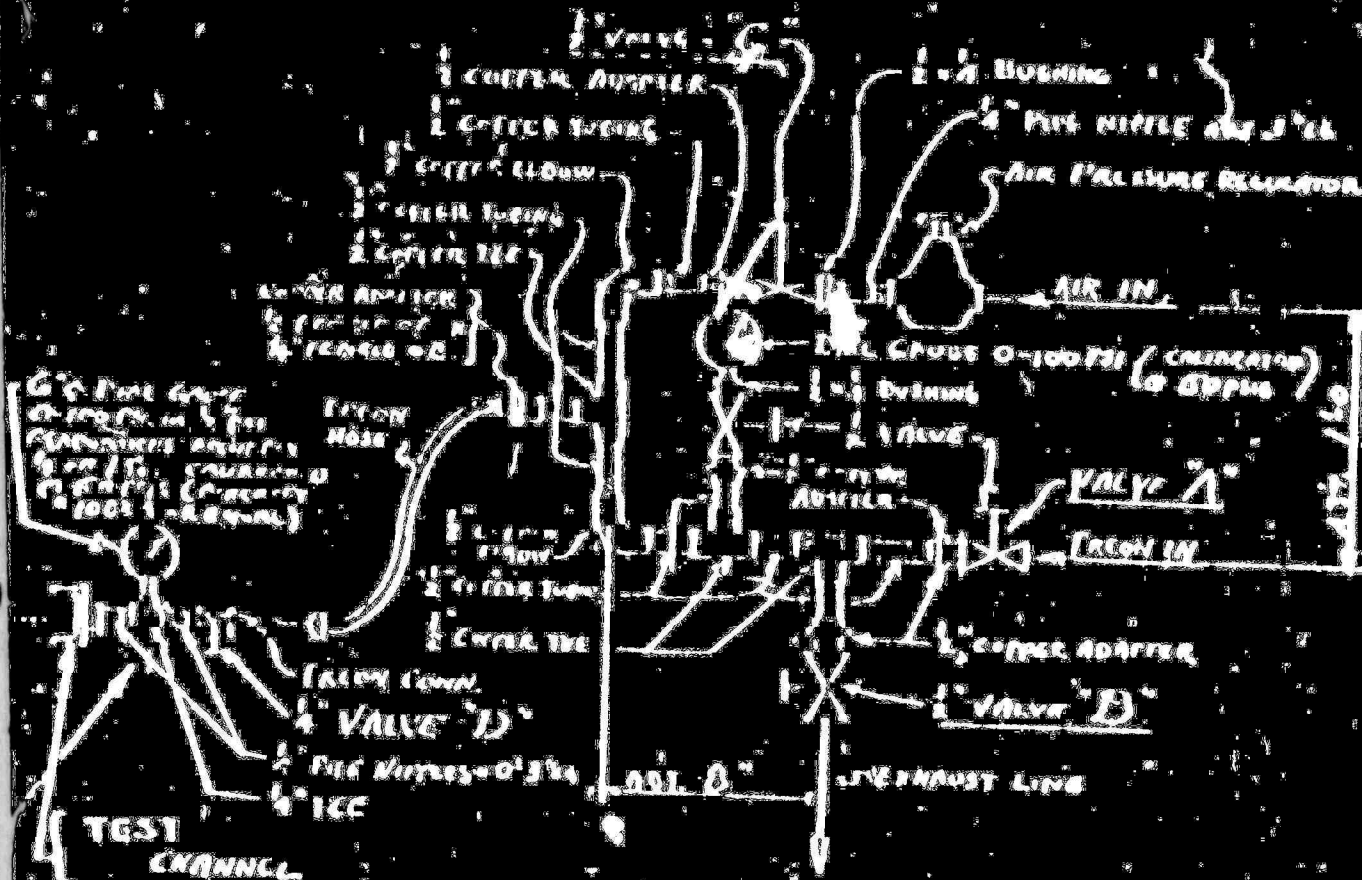
TEST TITLE: HLP-11
PAGE NO: 1 OF 1
DATE: 7-28-69
REVISION NO: 0

SYSTEM: THERMAL POWER CONVERSION
PRODUCT: CONCENTRATOR TEST TUBES
SUBSYSTEM: CRYSTALLINE MATERIALS
DESCRIPTION: COLLECTOR - DB-100

2. The test channel tube shall be held under 42 psig pressure for a period of two (2) hours. A pressure loss of 0.5 psi is acceptable.
- B. If the pressure loss is slightly greater than 0.5 psi after correcting for temperature change, the holding period may be increased for a longer period of time to average or stabilize the observations.
- C. If the pressure loss is in excess of the allowable stated in Step 2A after performing Step 2B, rerun the channel section and test connections with soap film and the leak detector. If any leaks are found, release the pressure to 0 psig and repair the leak and retest.

3.9 The air hose used for pressurizing the test channels must be free of water. The test channels must be free of water.

14



FIELD NOTE:
 Check assembly
 for leaks prior to
 testing. If leaks are
 detected, the assembly
 must be repaired
 before testing.

Piping Assembly for the Test Channel
Check Joints for Leaks

SECTION A

ASSEMBLY TO BE MOUNTED ON A BEARD FOR
 FOR RIGIDITY AND HANDLING
 THE CHECKED JOINTS TO BE LEFT TO A MINIMUM

GILBERT ASSOCIATES, INC.
QUALITY ASSURANCE REPORT

SURVEILLANCE OF LIQUID PENETRANT TESTING

CLIENT Florida Power CorporationUNIT Crystal River #3PREPARED BY C. R. HoffarthSHEET 1 of 2DATE March 2, 1971CONTRACTOR Chicago Bridge & Iron CompanyITEM AND/OR SYSTEM TESTED Channel Zones #38 & #39

A. CONTRACTOR'S YES NO

1. Procedure No. PTP-5L Rev. 02. Test method Water-washable

B. QUALIFICATION

3. Personnel to ASNT TC-1A

a. Level I

b. Level II Equal to

c. Level III

4. Procedure (Contractor)

a. Approved

b. Latest revision used in production

c. Available in work area

C. EQUIPMENT

1. Type Penetrant & Developer (brush type)

2. Condition good

D. MATERIAL

1. Cleaner

a. Type Wire Brush

b. Certified

c. Used properly

2. Penetrant

a. Type Water-washable

b. Certified

c. Used properly

3. Developer

a. Type Water-washable

b. Certified

c. Used properly

4. Type material tested

Carbon steel welds

E. SURFACE OF MATERIAL TESTED

1. Adequately cleaned

2. Smoothness adequate

3. Contamination considered

F. TESTING

1. Light 60° C.P. on test surface

2. Test temperature 60° to 120°F

3. Testing area clean

4. Cleaner evaporation time adequate

5. Penetrant time adequate

6. Excess penetrant removal adequate

7. Application of developer adequate

8. Time of examination proper

9. Cleaning rags or towels proper

G. INTERPRETATION

1. In accordance with applicable requirements

2. Relevant indications

a. Marked

b. Documented

c. Removed

CAUTION 11-26
6/3/70

ATTACH 'B'

SNES 90-0532

Rc. 23/73

OLBERT ASSOCIATES, INC.
QUALITY ASSURANCE REPORT

SURVEILLANCE OF LIQUID PENETRANT TESTING

CLIENT Florida Power Corporation

UNIT Crystal River #3

PREPARED BY C. R. Hoffman

SHEET 2 OF 2

DATE March 2, 1971

CONTRACTOR Chicago Bridge & Iron Company

ITEM AND/OR SYSTEM TESTED Channel Zones #18 & #39

	YES	NO		YES	NO
3. Non-relevant indications explored	<u>X</u>	<u>X</u>	7. Examiner's signature noted	<u>X</u>	<u>X</u>
4. Hold tags applied when necessary	<u>X</u>	<u>—</u>	8. Test results satisfactory	<u>X</u>	<u>—</u>
H. REPAIRS			J. NON-CONFORMANCE		
1. Made to approved procedures	<u>X</u>	<u>—</u>	1. Contractor taking immediate action	<u>X</u>	<u>—</u>
2. Retested	<u>X</u>	<u>—</u>	2. All non-conforming conditions satisfactorily resolved	<u>X</u>	<u>—</u>
3. Re-examined and satisfactory	<u>X</u>	<u>—</u>	3. DDN'S initiated	<u>None</u>	<u>—</u>
4. Documented	<u>X</u>	<u>—</u>	4. DDN'S resolved	<u>X</u>	<u>—</u>
I. REPORTS (Contractor)					
1. All required data documented	<u>X</u>	<u>—</u>			

COMMENTS:

[Handwritten signature: C. R. Hoffman]

[Handwritten initials: C. R. Hoffman]

[Handwritten date: 7/2/00]

NOTE: USE SUPPLEMENTARY SHEET GAO-AM-11-100 FOR ADDITIONAL COMMENTS

GAO-AM-11-100
8/2/79

ATTACH 'B'

SNES 90-0532

Re. 24/73

GILBERT ASSOCIATES, INC.
QUALITY ASSURANCE REPORT

SURVEILLANCE OF LIQUID PENETRANT TESTING

CLIENT Florida Power CorporationUNIT Crystal River #3PREPARED BY C. R. HoffmanPAGE 1 OF 2DATE February 25, 1971CONTRACTOR Chicago Bridge & Iron CompanyITEM AND/OR SYSTEM TESTED Voids of structural channels to bottom plates

A. CONTRACTOR'S

YES NO

1. Procedure No. PTP-5E Rev. 02. Test method Water-soluble

B. QUALIFICATION

1. Personnel to ASNT TC-1A

a. Level I

b. Level II

c. Level III

2. Procedure (Contractor)

a. Approved

b. Latest revision used in production

c. Available in work area

C. EQUIPMENT

1. Type Penetrant & developer (brush type)

2. Condition good

D. MATERIAL

1. Cleaner

a. Type Water

b. Certified

c. Used properly

2. Penetrant

a. Type Water-soluble

b. Certified

c. Used properly

3. Developer

a. Type Water-soluble

b. Certified

c. Used properly

4. Type material tested

Carbon steel voids

E. SURFACE OF MATERIAL TESTED

1. Adequately cleaned

2. Smoothness adequate

3. Contamination considered

F. TESTING

1. Light 50' C.P. on test surface

2. Test temperature 60° to 120°F

3. Testing area clean

4. Cleaner evaporation time adequate

5. Penetrant time adequate

6. Excess penetrant removal adequate

7. Application of developer adequate

8. Time of examination proper

9. Cleaning rags or towels proper

G. INTERPRETATION

1. In accordance with applicable requirements

2. Relevant indications

a. Marked

b. Documented

c. Removed

QUALITY 3126
6/2/71

ATTACH 'B'

SNES 90-0532

Pg. 25/73

OLBERT ASSOCIATES, INC.
QUALITY ASSURANCE REPORT

SURVEILLANCE OF LIQUID PENETRANT TESTING

CLIENT Florida Power Corporation

UNIT Crystal River #3

PREPARED BY C. R. Hoffman

SHEET 2 of 2

DATE February 25, 1971 CONTRACTOR Chicago Bridge & Iron Company

ITEM AND/OR SYSTEM TESTED Welds of structural channels to bottom plates.

	YES	NO		YES	NO
3. Non-solvent indications explored	<u>X</u>	___	2. Examiner's signature noted	<u>X</u>	___
4. Hold time applied when necessary	<u>N/A</u>	___	3. Test results satisfactory	<u>X</u>	___
H. REPAIRS			J. NON-CONFORMANCE		
1. Made to approved procedures	<u>None</u>	___	1. Contractor taking immediate action	<u>X</u>	___
2. Retested	___	___	2. All non-conforming conditions satisfactorily resolved	<u>X</u>	___
3. Re-examined and satisfactory	___	___	3. DOR's initiated	<u>None</u>	___
4. Documented	___	___	4. DOR's resolved	___	___
I. REPORTS (Contractor)					
1. All required data documented	<u>X</u>	___			

COMMENTS: The examination relative to this report was acceptable and in accordance with the vendor's approved procedure.

NOTE: USE SUPPLEMENTARY SHEET CANDOANI 11-A FOR ADDITIONAL COMMENTS

CANDOANI 11-28
8/78

ATTACH 'B'

SALES 90-0532

Pg. 26/23

QUALITY ASSURANCE RECORD
SURVEILLANCE OF LIQUID PENETRANT TESTING

CLIENT Florida Power CorporationUNIT Crystal River, FLPREPARED BY C. H. HoffmanSHEET 1 OF 2DATE February 18, 1971 CONTRACTOR Chicago Bridge & Iron CompanyITEM AND/OR SYSTEM TESTED Ellipt welds of structural channels welded to attachment bottom plates.

A. CONTRACTOR'S		YES	NO	E. SURFACE OF MATERIAL TESTED		YES	NO
1. Procedure No.	<u>PTP-5L, Rev. D</u>			1. Adequately cleaned	<u>X</u>		
2. Test method	<u>Water-washable</u>			2. Smoothness adequate	<u>X</u>		
B. QUALIFICATION				3. Contamination considered	<u>X</u>		
1. Personnel to ASNT-TC-1A				F. TESTING			
a. Level I				1. Light 60° C.P. on test surface	<u>X</u>		
b. Level II	<u>X</u>			2. Test temperature 60° to 120° F	<u>X</u>		
c. Level III				3. Testing area clean	<u>X</u>		
2. Procedure (Contractor)				4. Cleaner separation time adequate	<u>N/A</u>		
a. Approved	<u>X</u>			5. Penetrant time adequate	<u>X</u>		
b. Latest revision used in production	<u>X</u>			6. Excess penetrant removal adequate	<u>X</u>		
c. Available in workshop	<u>X</u>			7. Application of developer adequate	<u>X</u>		
C. EQUIPMENT				8. Time of examination proper	<u>X</u>		
1. Type	<u>Penetrant and developer (brush type)</u>			9. Cleaning rag or brush proper	<u>X</u>		
2. Condition good	<u>X</u>			G. INTERPRETATION			
D. MATERIAL				1. In accordance with applicable requirements	<u>X</u>		
1. Cleaner				2. Relevant indications			
a. Type	<u>Water</u>			a. Marked	<u>None</u>		
b. Certified	<u>N/A</u>			b. Documented	<u>X</u>		
c. Used properly	<u>X</u>			c. Removed	<u>X</u>		
2. Penetrant							
a. Type	<u>Water-washable</u>						
b. Certified	<u>X</u>						
c. Used properly	<u>X</u>						
3. Developer							
a. Type	<u>Water-washable</u>						
b. Certified	<u>X</u>						
c. Used properly	<u>X</u>						
4. Type material tested							
	<u>Carbon Steel Welds</u>						

CAUTION: FILM
REMOVED

Re. 27/73

SURVEILLANCE OF LIQUID PENETRANT TESTING

CLIENT Florida Power Corporation

UNIT Crystal River #3

PREPARED BY C. R. Hoffman

SWEET 2 OF 2

DATE February 18, 1972 CONTRACTOR Chicago Bridge & Iron Company

ITEM AND/OR SYSTEM TESTED: Fillet welds of structural channels welded to contain-
ment bottom plates.

YES NO

3. Non-relevant indications explored

4. Hold tape applied when necessary

NA

W. REPAIRS

1. Made to appear
inoperative

None

2. History

2. He examined and satisfactory

00000000

L. REPORTS (Continued)

1. All required data

YES NO

2. Examinor's signature

12

3. Test results and factory

100

J. NON-CONFORMANCE

1. Contractor taking immediate action

2. All non-conforming conditions satisfactorily resolved.



3. DON'T talk to me

Index

4. DDA's method

1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 26

COMMENTS:

Comments: The examinations relative to this report were acceptable and in accordance with the vendor's approved procedure.

FOR THE SUPPLEMENTARY SHEET (ANNEX) IS A FOR ADDITIONAL COMMENTS

0400414 11 30
0270

ATTACH 'B'

SNES 90-0532

Pg. 28/73

CHILBERT ASSOCIATES, INC.
QUALITY ASSURANCE DEPARTMENT
TRIP REPORT

Client: Chicago Bridge & Iron Company
Birmingham, Alabama

DATE: December 8, 1970

PURPOSE OF TRIP:

To perform final inspection of some containment liner shell plates, test channels and angles and miscellaneous iron before shipment of these materials from the vendor's plant to Crystal River Unit #3 of Florida Power Corporation; and to review radiography and other work in progress.

SUMMARY:

The identification numbers of the containment liner shell plates to be shipped were listed and then traced to the certified heat numbers of the specific mill test reports. All were correct. These identification numbers are assigned by CB & I as serial numbers of the plates and will be transferred on as-built drawings when erected. The test channels and angles are rolled to approximate radii and approximate lengths as they will later be subject to final changes during installation. A "Certificate of Inspection" was issued and given to Mr. Vance Donahoe, Quality Assurance Coordinator. This certificate will be sent to the job site with other CB & I documentation.

Radiographs for the following containment penetrations were checked and read. These radiographs represent the welds required during sleeve fabrication:

Penetrations: 131C, 217BC, 216BC, 205BC, 214BC, 204, 375, 323, 201, 108, 107, 106, 105, 343, 342, 329, 347, 120, 119, 344.

Welding repairs were required for several of the above penetration fabrications and these original, repair and final films will be filed for documentation in their specific folders. All of the above final films were punched for QAI acceptance and the radiography document stamped for QAI acceptance.

Shop operations were observed and plans made for another inspection trip prior to a shipment of ring #1 and #2 shell plates and penetrations that is to be shipped on December 21, 1970. This trip will be planned for December 17th or 18th.

Prepared by:

C. E. Hoffmann
C. E. Hoffmann
Vendor Inspector
Quality Assurance

Reviewed by:

F. S. Adams
F. S. Adams
Project Engineer
Quality Assurance

CRV/all

ELBERT ASSOCIATES, INC.
QUALITY ASSURANCE INSPECTION REPORT
VENDOR FABRICATED ITEMS

CLIENT: Florida Power Corporation
DIV: Central Plant, Unit #1

ATTACH 'B'
SALES 90-0532
RG. 29/73

DATE: December 9, 1979

INSPECTOR: E. E. Hoffman

QUEST NO. 1

CONTRACTOR: Chicago Bridge & Iron Co.

ITEM: Case Compressor Tank, No. 11

Plates, 1/2" Carbon Steel

PURCHASE ORDER # 275-310

IDENTIFICATION NO. 004749

Serial No's. 8, 9, 10, 11, 12 & 13

A. FABRICATION AND INSPECTION CRITERIA

1. DRAWING NO. & REV. NO.

SMC Rev. No. 11, Rev. 1 and

Rev. 15, Rev. 11, 15, Rev. 11

15, Rev. 11, 15, Rev. 11

2. PROCEDURE (SA & VISION)

Procedure No. 1, 11, 15

3. APPLICABLE CODES & SPECIFICATIONS

SAE No. 2066

ASME, Section III, Class 3

B. CERTIFICATION

1. LIST ITEMS REQUIRING

MATERIAL CERTIFICATION

CERTIFICATION
DATES & NOS.

AS REQUIRED BY SPEC.
YES NO

ASTM NO.

GRAY IRON, F20000

Serial No. 11, 15, 11, 15

Serial No. 11, 15, 11, 15

Serial No. 11, 15, 11, 15

Serial No. 11, 15, 11, 15

Serial No. 11, 15, 11, 15

Serial No. 11, 15, 11, 15

Serial No. 11, 15, 11, 15

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Serial No. 11, 15, 11, 15

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Serial No. 11, 15, 11, 15

Serial No. 11, 15, 11, 15

Serial No. 11, 15, 11, 15

Serial No. 11, 15, 11, 15

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Serial No. 11, 15, 11, 15

Serial No. 11, 15, 11, 15

Serial No. 11, 15, 11, 15

Serial No. 11, 15, 11, 15

Serial No. 11, 15, 11, 15

2. MEASURING EQUIPMENT (LIST)

None

None

None

None

None

None

None

None

None

None

None

None

None

None

None

None

None

None

None

None

None

None

3. TEST EQUIPMENT (LIST)

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

C. QUALIFICATION

TEST RESULTS ON RECORD

YES

NO

YES

NO

CERTIFIED

NO

1. WELDING PROCEDURES

WELDER

WELD OPERATOR

WELD EQUIPMENT

WELD PERSONNEL

DATE/04/73

11-10-73

OLBERT ASSOCIATES INC.
QUALITY ASSURANCE INSPECTION REPORT
VENDOR FABRICATED ITEMS

Client Florida Power Corporation
Unit Crystal River Unit #1

DATE December 9, 1979 SHEET NO 1 OF 1
INSPECTOR S. E. Hoffman CONTRACTOR Chicago Bridge & Iron Company
ITEM NAME Reinforcement Steel Beam PURCHASE ORDER 79-100 REV. 0
Flange End Channels and Angles IDENTIFICATION NO. Q81 Flange End 11-11
Angles Serial No. 9, 10, 11, 12, 13

D. IN-PROCESS INSPECTIONS

1. RADIOGRAPHY
2. ULTRASONIC
3. LIQUID PENETRANT
4. MAGNETIC PARTICLE
5. EDDY CURRENT
6. SPARK TESTING
7. WELDING
8. WELD AREAS
 - a. PLATE ALIGNMENT
 - b. JOINT PREP
 - c. CLEANLINESS (JOINT)
 - d. FITUP
 - e. WELD APPEARANCE
9. WELD MATERIALS
 - a. RECEIPT OF
 - b. STORAGE
 - c. INSURANCE
 - d. WELD STATION CONTROL
 - e. WELD METAL TRACEABLE TO JOINT
 - f. RECYCLE & BAKE OUT

BY	PROCEDURE	RECORDS COMPLETE		MATERIALS & COMPT. APP.	
		YES	NO	YES	NO
	1. RADIOGRAPHY	N/A			
	2. ULTRASONIC	N/A			
	3. LIQUID PENETRANT	N/A			
	4. MAGNETIC PARTICLE	N/A			
	5. EDDY CURRENT	N/A			
	6. SPARK TESTING				
	7. WELDING				
	8. WELD AREAS				
	a. PLATE ALIGNMENT				
	b. JOINT PREP				
	c. CLEANLINESS (JOINT)				
	d. FITUP				
	e. WELD APPEARANCE				
	9. WELD MATERIALS				
	a. RECEIPT OF				
	b. STORAGE				
	c. INSURANCE				
	d. WELD STATION CONTROL				
	e. WELD METAL TRACEABLE TO JOINT				
	f. RECYCLE & BAKE OUT				

10. DETAILS - SUB-ASSEMBLIES - ASSEMBLIES LIST NAME AND/OR IDENTIFICATION NO.

a. <u>Shell Flange</u>	b. _____
c. <u>End Channels</u>	d. _____
e. <u>End Angles</u>	f. _____
g. _____	h. _____

IN COMPLIANCE WITH

- CONNECTIONS
- SURFACE FINISH
 - DRAWING NOTES
 - MATERIAL TESTS
 - JOINT TESTS
 - HYDRO-STATIC TESTS
 - HEAT TREATING
 - CONFIGURATION
 - FINAL ASSY. LOCATION
 - FITUP
 - WELD APPEARANCE

	YES					NO				
CONNECTIONS										
SURFACE FINISH										
DRAWING NOTES										
MATERIAL TESTS										
JOINT TESTS										
HYDRO-STATIC TESTS										
HEAT TREATING										
CONFIGURATION										
FINAL ASSY. LOCATION										
FITUP										
WELD APPEARANCE										

QA/0017-11.0
11-10-80

R. 2/73

ATTACH '0'

SMS

90-0532

OLBERT ASSOCIATES, INC.
QUALITY ASSURANCE INSPECTION REPORT
VENDOR FABRICATED ITEMS

CLIENT Florida Power Corporation
UNIT Central River Bridge #3

DATE December 9, 1979

INSPECTOR P. E. Williams

ITEM NAME Compliance Minor Shell

Plating, Test Channels and
Angles

SHEET NO. 1

CONTRACTOR Chicago Bridge & Iron Company

PURCHASE ORDER 211-1101

REV. 2

IDENTIFICATION NO. QMSI Plating Unit 11-11

Serial No's. 8, 9, 10, 11, 12, 13

E. FINAL INSPECTION

COMPLIANCE
YES NO

1. DIMENSIONS PER DWG. X

2. CONFIGURATION PER DWG. X

3. GENERAL CONDITIONS
ACCEPTABLE X

4. CLEANLINESS AS REQ. X

5. IDENTIFICATION

a. METHOD PER CODE X

b. EQUIPMENT NO. PER
ENG. DWG. OR
PURCHASE ORDER N/A

c. METCHES IDENTIFYING
LOCATION OF PLATE
MATERIALS COMPLETE N/A

6. REPAIR DOCUMENTS
AVAILABLE N/A

7. NOT RECORDS AVAILABLE N/A

8. PAINT

a. MIN. THICKNESS N/A

b. PER SPEC. N/A

9. DEFECTS

a. RESOLVED N/A

b. REPORTS COMPLETE N/A

10. TESTS

a. PERFORMED ACCORDING
TO CODES N/A

b. RESULTS RECORDED N/A

c. RESULTS ACCEPTABLE N/A

F. PACKAGING

COMPLIANCE
YES NO

1. CLEANLINESS

a. PER SPECIFICATION N/A

b. PER CODE N/A

2. PROTECTIVE MEASURES

a. SURFACES PRIMED
WHERE REQUIRED N/A

b. SURFACES REQUIRING
FIELD WELDING N/A

(1) UNPAINTED 2"
EITHER SIDE OF
WELD N/A

(2) RUST PREVENTA-
TIVE APPLIED N/A

3. BAKKED SURFACES

(1) UNPAINTED N/A

(2) RUST PREVENTA-
TIVE APPLIED N/A

COMPLIANCE
YES NO

3. IDENTIFICATION

a. COMPATIBLE WITH
DRAWING, PURCHASE
ORDER AND PACKING
LIST X

b. ALL REQUIRED TAGS
AFFIXED N/A

4. PLASTICS UNPAINTED N/A

5. CORROSION RESISTANT
METALS UNPAINTED N/A

6. OPENINGS

(1) PLUGGED N/A

(2) PLUGS ADEQUATE
DEBRISANTS N/A

(3) ADDED N/A

7. SHIPPING CONTAINERS
AND/OR COVERS
ADEQUATE TO PRE-
CLUDE N/A

(1) DAMAGE N/A

(2) CONTAMINATION N/A

(3) CORROSION N/A

COMPLIANCE
YES NO

COMPLIANCE
YES NO

8. REQUIRED INSPECTION
STAMPS AFFIXED N/A

9. STAMPING IN ACCORDANCE
WITH THE CODE X

EN 704 (P) 11.01
11-14-98

12/31/79
ATTACH 'B'
SUES
90-0632

N/A For
this
Report

N/A For
this
Report

CLBERT ASSOCIATES, INC.
QUALITY ASSURANCE INSPECTION REPORT
VENDOR FABRICATED ITEMS

CLIENT Florida Power Corporation
UNIT Crystal River Unit #2

DATE December 3, 1978 SHEET NO. 1 OF 1
INSPECTOR C. E. Hoffman CONTRACTOR Malcom Bridge & Iron Company
ITEM NAME Reinforced Steel Shell PURCHASE ORDER 23-310 REV. 1
Plates and Channels and IDENTIFICATION NO. OMI Plans Book 11-11
Angles Serial No's. 8, 9, 10, 11, 12, 13
COMPLIANCE
Q. SHIPPING YES NO YES NO
1. AUTHORIZATION TO SHIP SECTIONS OR INCOMPLETE ITEMS ON RECORD X 4. TEST REPORTS COMPLETE None
2. EQUIPMENT THOROUGHLY DRIED N/A 5. FINAL ACCEPTANCE REPORT SUPPLIED TO VENDOR X
3. INSPECTION REPORTS COMPLETE X 6. VENDOR AUTHORIZED TO SHIP X

COMMENTS:

The shell plates with identities as noted were issued to the noted Unit No. 2 and relevant RTN's.

Test channels and angles are fabricated to suit conditions encountered at job site. That is, variations in fitting. Raw material was also sent to job site.

A "Certificate of Inspection" was given to OMI at Birmingham but this will be forwarded with other shipping papers by mail to job site.

Shore material was shipped via truck. Freight arrived Birmingham about noon December 3rd.

Prepared by:

C. E. Hoffman
Welding Inspector
Quality Assurance

Approved by:

F. E. Jones
Senior Engineer
Quality Assurance

OMI/ack

NOTE: USE SUPPLEMENTARY SHEET QAI/QA (P) 11.5 FOR ADDITIONAL COMMENTS.

CM/QAI/11.5
11-12-78

12.32/73
APR 8'
41ES
86-0532

ATTACH 'B'

SUES 90-0532

Re. 33/73

GILBERT ASSOCIATES, INC.
QUALITY ASSURANCE DEPARTMENT
CERTIFICATE OF INSPECTION

CLIENT Florida Power Corporation UNIT Crystal River Unit #3

ITEMS Sump, bottom, knuckle and toricon- ORDER NO. PR3-1108
cal plates, test channels, engines.

IDENTIFICATION NO. [Signature]

VENDOR Chicago Bridge & Iron Co., Birmingham, Alabama

APPLICABLE DRAWING NO. AND REVISION CS & I Drawings 2 Rev. 2, 3 Rev. 2, 4 Rev. 1, 5 Rev. 2,
6 Rev. 2, 7 Rev. 3, 8 Rev. 2, 10 Rev. 2, 11 Rev. 3
(ENGINEERING, VENDOR, ETC.)

APPLICABLE DOCUMENT NO. AND REVISION

(REQUIREMENT OUTLINE, SPECIFICATIONS) CAT SP-5566

CERTIFICATION IS HEREBY GIVEN THAT THE ITEMS LISTED ABOVE HAVE BEEN
INSPECTED AND FOUND TO MEET THE APPLICABLE REQUIREMENTS EXCEPT AS
NOTED BELOW. THIS CERTIFICATION SHALL NOT RELIEVE THE CONTRACTOR
OF HIS RESPONSIBILITY FOR CONFORMING TO APPLICABLE REQUIREMENTS AND
SHALL NOT BE CONSIDERED A WAIVER OF WARRANTY OR OTHER RIGHTS.

EXCEPTIONS None

REMARKS: Above plates were accepted and verbally released for shipment. Receiving
inspection should check for damage during shipment.

By: [Signature]

VERIFIED INSPECTOR
QUALITY ASSURANCE

DATE: November 16, 1970

GA/PA/7/ 11.25
11-19-70

ATTACH 'B'

Subs No 532

Ac. 34/73

GILBERT ASSOCIATES, INC.
QUALITY ASSURANCE DEPARTMENT
CERTIFICATE OF INSPECTION

CLIENT Florida Power Corporation UNIT Crystal River Unit #3

ITEMS 5 - 3/8" Shell Plates ORDER NO. _____
Test Channels, Angles, and Bars PRJ-1108

IDENTIFICATION NO. Pc. Mark 11-M Serial No.'s 8, 9, 10, 11, 14 and 15

VENDOR Chicago Bridge and Iron Company, Birmingham, Alabama

APPLICABLE DRAWING NO. AND REVISION

(ENGINEERING, VENDOR, ETC.) CBAI DWG. 11, Rev. 5, Pc. Mark 11-11,
(Dwg. No.'s 13 Rev. 1, 14 Rev. 1, 15 Rev. 1, 16 Rev. 2)

APPLICABLE DOCUMENT NO. AND REVISION

(REQUIREMENT OUTLINE, SPECIFICATION) GAL/SP-5566

CERTIFICATION IS HEREBY GIVEN THAT THE ITEMS LISTED ABOVE HAVE BEEN
INSPECTED AND FOUND TO MEET THE APPLICABLE REQUIREMENTS EXCEPT AS
NOTED BELOW. THIS CERTIFICATION SHALL NOT RELIEVE THE CONTRACTOR
OF HIS RESPONSIBILITY FOR CONFORMING TO APPLICABLE REQUIREMENTS AND
SHALL NOT BE CONSIDERED A WAIVER OF WARRANTY OR OTHER RIGHT.

EXCEPTIONS: None

REMARKS: Items should be checked for shipping damage at job site.

BY: [Signature]

VENDOR INSPECTOR
QUALITY ASSURANCE

DATE: December 8, 1971

REVISIONS
11/2/71