

PRIORITY 1

(ACCELERATED RIDS PROCESSING)

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9503140155 DOC. DATE: 95/03/09 NOTARIZED: NO DOCKET #
 FACIL: 50-259 Browns Ferry Nuclear Power Station, Unit 1, Tennessee 05000259
 AUTH. NAME AUTHOR AFFILIATION
 SALAS, P. Tennessee Valley Authority
 RECIP. NAME RECIPIENT AFFILIATION
 Document Control Branch (Document Control Desk)

SUBJECT: Requests relief from ASME Section XI B&PV Code requirement to perform as-found testing prior to mod of MSRVs installed in BFN Unit 1. Request for Relief PV-36 for as-found testing of currently installed Unit 1 MSRVs encl.

DISTRIBUTION CODE: A047D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 5
 TITLE: OR Submittal: Inservice/Testing/Relief from ASME Code - GL-89-04

NOTES:

| | RECIPIENT ID CODE/NAME | COPIES LTTR ENCL | RECIPIENT ID CODE/NAME | COPIES LTTR ENCL |
|-----------|---------------------------|---------------------|---------------------------|---------------------|
| | PD2-4 | 1 1 | PD2-4-PD | 1 1 |
| | WILLIAMS, J. | 1 1 | | |
| INTERNAL: | ACRS | 6 6 | AEOD/SPD/RAB | 1 1 |
| | FILE CENTER 01 | 1 1 | NRR/DE/EMCB | 1 1 |
| | NRR/DE/EMEB | 1 1 | NUDOCS-ABSTRACT | 1 1 |
| | OGC/HDS3 | 1 0 | RES/DSIR/EIB | 1 1 |
| EXTERNAL: | LITCO BROWN, B | 1 1 | LITCO RANSOME, C | 1 1 |
| | NOAC | 1 1 | NRC PDR | 1 1 |

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK, ROOM P1-37 (EXT. 504-2083) TO ELIMINATE YOUR NAME FROM DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

TOTAL NUMBER OF COPIES REQUIRED: LTTR 20 ENCL 19

MAY

P
R
I
O
R
I
T
Y

1

D
O
C
U
M
E
N
T



Tennessee Valley Authority, Post Office Box 2000, Decatur, Alabama 35609

10 CFR 50.55a(a)(3)(i)

March 9, 1995

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Gentlemen:

In the Matter of)
Tennessee Valley Authority)

Docket No. 50-259

**BROWNS FERRY NUCLEAR PLANT (BFN) - UNIT 1 - AMERICAN SOCIETY
OF MECHANICAL ENGINEERS (ASME) SECTION XI INSERVICE TEST
(IST) PROGRAM - RELIEF REQUEST (RR) PV-36**

In accordance with the provisions of 10 CFR 50.55a(a)(3)(i), TVA requests relief from the ASME Section XI Boiler and Pressure Vessel Code requirement to perform as-found testing prior to modification of the Main Steam Relief Valves (MSRV) currently installed in Unit 1. Unit 1 has been shutdown since 1985 and as-found testing of the MSRVs will not provide useful data. Following planned modifications, the MSRVs will be tested and recertified prior to use as required by Technical Specifications. TVA plans to use the valves as replacements for Units 2 and 3 and as spares for future use. As outlined in the enclosed Request for Relief, TVA has determined that this testing will provide an acceptable level of quality and safety.

Enclosed is TVA's Request for Relief (PV-36) for as-found testing of the currently installed Unit 1 MSRVs. TVA requests review and approval of the Request for Relief by September 1, 1995 to support modification and testing of the MSRVs prior to the next Unit 2 refueling outage that is currently scheduled for April 1996. Approval of the Request for Relief will result in a cost savings of approximately \$27,000 based on testing costs.

9503140155 950309
PDR ADOCK 05000259
P PDR

AOA 7
11

U.S. Nuclear Regulatory Commission
Page 2
March 9, 1995

There are no commitments contained in this letter. If you have any questions, please contact me at (205) 729-2636.

Sincerely,



Pedro Salas
Manager of Site Licensing

Enclosure

cc (Enclosure):

Mr. Mark S. Lesser, Acting Branch Chief
U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

NRC Resident Inspector
Browns Ferry Nuclear Plant
Route 12, Box 637
Athens, Alabama 35611

Mr. J. F. Williams, Project Manager
U.S. Nuclear Regulatory Commission
One White Flint, North
11555 Rockville Pike
Rockville, Maryland 20852

ENCLOSURE

TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT (BFN)
UNIT 1

REQUEST FOR RELIEF PV-36

System: Main Steam (MS) (01)

Drawing: 1-47E801-1

Components: Main Steam Relief Valves (MSRVs) PCV-01-04, 05, 19, 23, 30, 31, 41, 42, and 179 currently installed on Unit 1. Serial numbers of the nine MSRV pilot valves affected by this Relief Request are 1017, 1027, 1060, 1064, 1068, 1072, 1075, 1078, and 1084.

Category: C

Class: 1

Function: Provide a relief function to prevent overpressurization of the nuclear system. Additionally, the MSRVs (six valves) provide automatic depressurization for small breaks in the nuclear system so that the Low Pressure Core Injection mode of the Residual Heat Removal system and the Core Spray system can operate to protect the fuel barrier.

Code Requirement: American National Standards Institute/American Society of Mechanical Engineers (ANSI/ASME) OM-1-1981, Section 3.3 - Periodic testing of all pressure relief devices is a requirement. No maintenance, adjustment, disassembly, or other activity that could affect as-found set pressure or seat tightness is permitted prior to testing.

Basis for Relief: Background

Each unit at BFN contains 13 MSRVs, six of which are also designated as Automatic Depressurization System (ADS) valves. The MSRVs are Target Rock Model Number 7567F two-stage valves. The MSRV pilot valves on Unit 1 were installed during the Unit 1 Cycle 4 (U1C4) refueling outage in 1983. Unit 1 was subsequently shutdown during Cycle 5 in

March 1985 and has remained in this condition since then. Since the shutdown, four MSRV pilot valves have been removed for other use, leaving nine MSRV pilot valves currently installed on Unit 1.

Current plans are to use the Unit 1 MSRV pilot valves as replacements for Units 2 and 3 and as spares for future use. Before the Unit 1 MSRV pilot valves can be used, planned modifications to address Environmental Qualification concerns are required to be performed. Following modification, the MSRV pilot valves must then be tested for set pressure and leakage for certification prior to use.

In accordance with the requirements of ANSI/ASME OM-1-1981, Section 3.3, as-found set pressure and seat leakage testing must be performed prior to any maintenance, adjustment, disassembly, or other activity that could affect set pressure or seat tightness. Therefore, set pressure and leakage testing must be performed prior to the planned modifications as well as following the modifications.

Technical Specifications (TSs)

Surveillance Requirements for the MSRVs are listed in Unit 1 TS 4.6.D. This TS does not require as-found testing of the MSRVs prior to modification but requires bench-checking as follows:

Approximately one-half of all relief valves shall be bench-checked or replaced with a bench-checked valve each operating cycle. All 13 valves will have been checked or replaced upon the completion of every second cycle.

This relief request does not affect compliance with TS 4.6.D. The nine remaining MSRVs installed on Unit 1 will be bench-checked as required by TS 4.6.D.1 prior to re-use.

Justification for Relief

BFN requests a one time relief from the requirement to perform as-found testing of the nine MSRV pilot valves prior to the planned modifications. BFN believes that as-found testing of the MSRV pilot valves after ten years of unit shutdown will not provide information more useful than the information currently available.

Historical as-found testing of Target Rock two-stage safety relief valves by BFN and other plants has provided ample data for review. It is not expected that the data from the as-found testing could be correlated to existing data due to the long outage time (ten years) prior to testing. Additionally, data from as-found testing of these nine MSRV pilot valves could not be accurately applied to MSRV pilot valve performance during the previous operating cycle.

The MSRV pilot valves will be tested for setpoint and seat leakage as required by OM-1-1981 and BFN TSs 1.0.MM & 4.6.D.1 prior to installation (post-modification). The operability of the MSRV pilot valves will be confirmed by testing during startup of the unit on which the MSRV pilot valves are installed as required by TSs. These requirements will provide an acceptable level of quality and safety.

Based on these reasons, there is no increased risk to the public for this Request for Relief.

This is a one time request for relief from as-found testing prior to modifications of the nine MSRVs currently installed on Unit 1. As-found testing of the other MSRVs pilot valves at BFN is not affected.

**Alternative
Testing:**

The nine MSRV pilot valves removed from Unit 1 will be tested for setpoint and seat leakage following modification and prior to re-use of these valves. This testing will ensure that the operation of these valves is in accordance with ASME and plant TS requirements.

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

| Condition | Control (%) | MCI (%) | AD (%) |
|-----------|-------------|---------|--------|
| 1 | 95 | 85 | 75 |
| 2 | 90 | 80 | 70 |
| 3 | 85 | 75 | 65 |
| 4 | 85 | 75 | 65 |

1



•

•

• • •

2

2

•

•

2

•

•

1