FPL Energy
Seabrook Station

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December 11, 2008

SBK-L-08204
Docket No. 50-443

United States Nuclear Regulatory Commission
Attention: Document Control Desk
11555 Rockville Pike
Rockville, MD 20852

**Seabrook Station**
**10 CFR 50.55a Request for Alternative Requirements for ASME Class 1 Upper Level Instrumentation Lines on the Pressurizer**

Pursuant to 10 CFR 50.55a(a)(3)(ii), FPL Energy Seabrook, LLC (FPL Energy Seabrook) requests approval of an alternative to certain ASME Boiler and Pressure Vessel Code, Section III requirements applicable to the reactor coolant pressure boundary Code classification of instrumentation lines connected to the steam filled portion of the pressurizer at Seabrook Station.

Westinghouse Nuclear Safety Advisory Letter (NSAL), NSAL-00-006, "Pressurizer Upper Level Instrument Line Safety Classification," identified an issue regarding the safety classification of the pressurizer upper level instrument lines. The NSAL indicates that a break in an instrument line for the upper (steam side) portion of the pressurizer level instrumentation may result in a rapid depressurization of the Reactor Coolant System (RCS) sufficient to cause an Emergency Core Cooling System (ECCS) actuation. This condition is not consistent with the existing classification of the line as Safety Class 2. Specifically, an instrument line connected to the pressurizer whose break results in an ECCS actuation should be classified as Safety Class 1 in accordance with ANSI N18.2-1973 and 10 CFR 50.55a(c).

The proposed alternative is to allow certain piping, tubing, and valves to remain as designed and constructed to ASME Code Class 2, in lieu of upgrading the current design configuration and replacing these items with items constructed to ASME Section III Subsection NB, Code Class 1 requirements. The replacement of the affected piping, tubing and valves to ASME Boiler and Pressure Vessel Code, Section III, Code Class 1 requirements would be a hardship or unusual difficulty without a compensating increase in the level of quality or safety.

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NRR

The basis supporting this 10 CFR 50.55a request is provided in the Attachment to this submittal. No commitments are identified in this submittal.

The NRC has approved similar relief requests for this condition:

- Comanche Peak Steam Electric Station, Units 1 and 2, by letter dated April 14, 2003 [ADAMS Accession No. ML031040482]
- Wolf Creek Generating Station, Unit 1, by letter dated May 31, 2005 [ADAMS Accession No. ML051520526]

Should you have any questions concerning this issue, please contact Mr. Michal O'Keefe, Licensing Manager, at (603) 773-7745.

Very truly yours,

FPL Energy Seabrook, LLC

Gene St.Pierre
Site Vice President

cc: S. J. Collins, NRC Region I Administrator
G. E. Miller, NRC Project Manager, Project Directorate I-2
W. J. Raymond, NRC Resident Inspector

**Attachment to SBK-L-08204**

**FPL Energy Seabrook, LLC**

**Seabrook Station**
**Unit No.1**

**10 CFR 50.55a Request for Alternative Requirements for ASME Class 1 Upper Level Instrumentation Lines on the Presssurizer**

**--Hardship or Unusual Difficulty without Compensating Increase in Level of Quality or Safety--**

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## 1. ASME Code Components Affected

The components affected by this relief request are some portions of the installed ASME Boiler and Pressure Vessel (B&PV) Code, Section III, Code Class 2 piping, instrumentation tubing, and valves connected to the reactor coolant system (RCS) pressurizer above the normal water level in the pressurizer. The three affected piping and tubing instrumentation paths are shown on Figure 1, Piping and Instrumentation Drawing PID-1-RC-B/D20846, Reactor Coolant System Pressurizer (Updated Safety Analysis Report (UFSAR) Figure 5.1-4). The items affected include the following lines to the pressure and level instrumentation, including associated reducers and fittings (see also Figure 2):

| **P&ID 1-RC-D20846** | | |
|---|---|---|
| **DWG. Location** | **Line(s)** | **Root Valve** |
| E-7 | RC-82-1-2501-3/4"<br>3/4" piping downstream of RC-V129<br>3/4" Pipe Tee (Condensate Pot)<br>1/2" tubing above Condensate Pot<br>1/2" tubing downstream of Condensate Pot (first section) | RC-V129 |
| D-7 | RC-83-1-2501-3/4"<br>3/4" piping downstream of RC-V130<br>3/4" Pipe Tee (Condensate Pot)<br>1/2" tubing above Condensate Pot<br>1/2" tubing downstream of Condensate Pot (first section) | RC-V130 |
| E-4 | RC-86-1-2501-3/4"<br>3/4" piping downstream of RC-V135<br>3/4" Pipe Tee (Condensate Pot)<br>1/2" tubing above Condensate Pot<br>1/2" tubing downstream of Condensate Pot (first section) | RC-V135 |

There are other small lines off of the pressurizer steam space that are ASME Section III, Code Class 2. Westinghouse Nuclear Safety Advisory Letter (NSAL) 07-09, Rev. 01, "Safety Classification of Small Lines Connected to the Pressurizer Steam Space," expanded the scope of NSAL-00-006 to include all instrument lines and other small lines connected to the pressurizer steam space. The NSAL states that "Some Westinghouse and CE NSSS plant designs include a flow restrictor in small lines connected to the pressurizer steam space to reduce the RCS depressurization rate that would occur following a break in a small line connected to the pressurizer steam space." The Seabrook Station design includes flow restrictors (flow orifices of 3/8" or 0.375" diameter), that serve as Code class break locations at these other steam side locations. A Seabrook Station specific Westinghouse calculation dated March 1985 demonstrated that an orifice size of 0.3775 inches provides the necessary restriction for the pressurizer heaters to be capable of generating the heat necessary to avoid a low pressurizer pressure trip or safety injection due to RCS depressurization. Thus, an orifice of this size or smaller (e.g., the specified 0.375" diameter) allows for an orderly shutdown. Therefore, the Code class break to the smaller and lower safety class lines in these locations is acceptable.

Regarding the lines affected by the proposed relief request, the first section of ½-inch instrument tubing downstream of the associated root valves is included within the scope as they would serve as the Code Class 1 required restricting orifice function. The inside diameter of this tubing is 0.37 inches, which is comparable to a 3/8 inch orifice, and thus provides the necessary flow restriction. The instrument tubing beyond this first section of ½ inch tubing would therefore not have to be replaced and is appropriately classified as Code Class 2.

## 2. Applicable ASME Code Edition and Addenda

The original design and analysis of the ASME Section III Code piping and instrument piping (including tubing) systems at Seabrook Station were performed in accordance with the 1971 edition with the Winter 1972 addenda of Section III of the ASME Boiler & Pressure Vessel Code. Subsequent as-built reconciliation analysis was performed to the 1977 edition; plus the 1980 edition through the Winter 1981 addenda for branch qualifications and with the 1983 edition with the Winter 1983 addenda for flange qualifications. Current analyses of ASME Code piping and instrumentation piping are performed to the 1977 edition with the Winter 1977 addenda of Section III. The three root valves included in the scope of this relief request were designed, manufactured and ASME Code stamped in accordance with the 1974 edition with Summer 1975 addenda of Section III, Subsection NC of the ASME B&PV Code. The Code of Construction for the ASME Code piping and instrument piping systems within the scope of this relief request was the 1977 edition with the Winter 1977 addenda.

## 3. Applicable ASME Code Requirement for Which Relief is Requested

10 CFR 50.55a(c) states, in part:

"(c) Reactor coolant pressure boundary.

(1) Components which are part of the reactor coolant pressure boundary must meet the requirements of Class 1 components in Section III of the ASME Boiler and Pressure Code, except as provided in paragraphs (c)(2), (c)(3), and (c)(4) of this section.

(2) Components which are connected to the reactor coolant system and are part of the reactor coolant pressure boundary as defined in §50.2 need not meet the requirements of paragraph (c)(1) of this section, *Provided:*

(i) in the event of postulated failure of the component during normal reactor operation, the reactor can be shut down and cooled down in an orderly manner, assuming makeup is provided by the reactor coolant makeup system . . ."

Section III paragraph NA-2110-(c) of the ASME Code requires that the Owner of a nuclear power plant, or his agent, shall be responsible for applying system safety criteria to classify the equipment in the nuclear power plant to be constructed in accordance with the rules of NA-2120 and NA-2130.

Section III, paragraph NA-2120 states:

> "Construction rules are specified for items which are designated Code Classes 1, 2, 3, CS, and MC. These Code classes are intended to be applied to the classification of items of a nuclear power system and containment system. Within these systems the Code recognizes the different levels of importance associated with the function of each item as related to the safe operation of the nuclear power plant. The Code classes allow a choice of rules that provide assurance of structural integrity and quality commensurate with the relative importance assigned to the individual items of the nuclear power plant."

Section III paragraph NA-2131 requires that Class 1 items be constructed in accordance with the rules of Subsection NB.

## 4. Reason for Request

Westinghouse Nuclear Safety Advisory Letter (NSAL), NSAL-00-006, "Pressurizer Upper Level Instrument Line Safety Classification," was issued April 3, 2000. This letter identified an issue where a break in an instrument line for the upper portion (steam side) of the pressurizer level instrument may result in a rapid depressurization of the RCS sufficient to cause an Emergency Core Cooling system (ECCS) actuation based on low

pressurizer pressure. Westinghouse NSAL 07-09, Rev. 01, "Safety Classification of Small Lines Connected to the Pressurizer Steam Space," expanded the scope of NSAL-00-006 to include all instrument lines and other small lines connected to the pressurizer steam space. This condition is not consistent with the existing classification of the lines as Safety Class 2. Specifically, a break in a small line connected to the pressurizer that results in an ECCS actuation should be classified as Safety Class 1 in accordance with ANSI N18.2-1973 and 10CFR 50.55a(c).

The Class 2 classification of the subject small lines connected to the pressurizer originally provided by Westinghouse at the time of the original design and licensing conflicts with the criterion of classification of Safety Class 1 components. This situation is the result of a change in Westinghouse design. In earlier Westinghouse designs, ECCS actuation would only occur with coincident low pressurizer level and low pressurizer pressure. Post Three Mile Island requirements only require low pressurizer pressure for ECCS actuation. The effect of this change was not addressed when Westinghouse made the change in the Reactor Protection System.

Based on the review of the NSAL-00-006, NSAL-07-09, ANSI 18.2-1973, the regulatory requirements, and the Seabrook Station specific design and analyses, FPL Energy Seabrook concurs that the identified issue applies to the instrument lines for pressure and level attached to the steam space of the pressurizer, up to and including the first tubing section downstream of the condensate pots.

The affected piping, tubing, and valves at Seabrook Station identified in Part 1 of this request were designed and constructed as Code Class 2 in accordance with the rules of ASME Section III, Subsection NC. Replacing the affected piping, tubing, and valves to fully comply with the rules of AMSE Section III Code Class 1 requirements would be a hardship or unusual difficulty because the changes would require substantial resources and excessive personnel radiation exposure.

The replacement of the affected piping, tubing, valves and associated fittings to ASME Boiler and Pressure Vessel Code, Section III, Class 1 requirements would require substantial time, materials, and resources to upgrade plant design configuration and perform plant modification work to replace the affected items. The items that would require replacement are located in highly congested areas with narrow openings in high radiation areas within the pressurizer housing. Access to safely perform the replacement work would require construction of scaffolding/platforms in tightly confined areas within the pressurizer housing, resulting in high personnel radiation exposure. The restricted area for performing the work would also pose difficulties in meeting Code requirements and performing required effective inspections thereof.

The estimated time for the potential removal and re-installation of the affected items is 1,000 man-hours. This includes the necessary prefabrication and preparations outside of the immediate pressurizer areas. The estimated engineering man-hours for revising the

design configuration and issuing design change packages is approximately 1,000 man-hours.

Radiological dose in the area for removal and replacement of the affected items is significant, as it is in proximity to the RCS pressurizer spray line. The high radiological dose would be contrary to the intent of the ALARA radiological control program. Radiation surveys conducted during outages indicate radiation fields of 10 to 200 mR/hr in the area for removal and replacement of the affected items. Projected radiation exposure for removal and replacement of the affected items is approximately 3.9 person-rem. This projection includes the installation and removal of scaffolding, insulation, and temporary shielding, as well as the actual affected items replacement work.

## 5. Proposed Alternative and Basis for Use

The proposed alternative is to allow the piping, tubing, and valves identified in Part 1 to remain as designed and constructed to ASME Code Class 2 in lieu of upgrading the current design configuration and replacing these items with items constructed to ASME Section III Subsection NB, Code Class 1 requirements. The basis for use of this proposed alternative in lieu of meeting ASME Section III, Subsection NB, Code Class 1 is presented in the following paragraphs.

The piping, tubing, and valves listed in Part 1 of this request were constructed as Code Class 2 in accordance with the rules of ASME Section III, Subsection NC. Construction as used in Section III Division 1 included requirements for materials, design, fabrication, examination, testing, inspection, and certification required in the manufacture and installation of items.

Although the items listed in Part 1 meet most of the Section III requirements for Code Class 1 items, they do not meet all Section III requirements for Code Class 1. Because compliance with 10 CFR 50.55a(c)(1) would require that the items meet all the requirements, the items can not be upgraded. For example, the valves do not meet the component certification requirements of Section III, which require that a valve be stamped by an appropriate ASME Certificate Holder with the Code Class 1 identification mark and be certified by an appropriated ASME Certificate Holder on the Section III Code Data Report (Form NPV-1) as being in full compliance with Code Class 1 requirements.

To justify the proposed alternative, a comparison was made between the Section III requirements in Subsection NB for Code Class 1 and Subsection NC for Code Class 2 for the applicable editions and addenda described in Part 2. The comparison looked at each Article of Subsections NB and NC (addressing the subjects of materials, design, fabrication and installation, examination, testing, protection against overpressure, and nameplates, stamping, and reports) and determined whether the differences were technical, quality, or administrative requirements. Differences in administrative

requirements, such as certification and stamping, furnishing of a Stress Report, marking of items, etc., although affecting literal compliance, were determined not to reduce the quality or safety of the items. There were few differences in quality requirements between Code Class 1 and Code Class 2 because most quality requirements are contained in General Requirements Subsection NA and are equally applicable to both Code Class 1 and Code Class 2. No differences in quality requirements were identified that would reduce the quality or safety of the affected items.

For the items identified in Part 1 of this request, there were some differences in technical requirements between Code Class 1 and Code Class 2, regarding the subjects of piping, tubing, and fitting material examination (NB/NC-2510), valve design (NB/NC-3500), and piping design (3600). However, it is concluded that replacing the affected items would provide minimal increase in quality and safety, as demonstrated in the following paragraphs.

Material Examinations

Regarding the subject of piping and tubing material examinations, the differences between the currently installed Code Class 2 items and the Code Class 1 requirements could be eliminated by revising the applicable Design Specifications to include provision from later editions and addenda to Section III that have been approved for use in 10CFR 50.55a. For piping and tubing material examination, the later provision of NB-2510(a) of the Summer 1983 Addenda exempted 1" and less seamless pipe, tubes, and fittings from the examination requirements of NB-2500, making the Code Class 1 rules the same as Code Class 2 and eliminating the technical differences. Since the NRC in 10 CFR 50.55a accepted the Summer 1983 addenda containing these material examination provisions, had the design and construction been completed at a later time, the Code Class 2 installed configuration would meet the Code Class 1 material examination requirements. Therefore, it is concluded that no increase in quality or safety would be realized by revision to Design Specifications or by changing the design Code Class and replacing the piping and tubing items, including fittings.

Piping Design

Regarding the subject of piping design, there are considerable differences between Code Class 1 and Code Class 2 requirements, but these differences were eliminated by the Summer 1975 Addenda change in NB-3630(d). This change allowed 1" and smaller Code Class 1 piping to be designed to NC-3600, making the Code Class 1 rules the same as Code Class 2 and eliminating the technical differences. For Seabrook Station, although the original systems were designed to earlier versions of the code, as-built reconciliation analysis was performed to the 1977 edition; plus the 1980 edition through the Winter 1981 addenda for branch qualifications and with the 1983 edition with the Winter 1983 addenda for flange qualifications. Based on the reconciliation analysis to the later codes as discussed above, the affected piping/tubing/fittings technically meet the requirements of the Code Class 1 rules. Therefore, it is concluded that no increase in

quality or safety would be realized by changing the design Code Class of the piping items, including fittings.

Valve Design

Regarding the subject of valve design, the requirements in NB-3500 are considerably different than the requirements in NC-3500. However, the small valves identified in Part 1 of this request have been evaluated to the applicable requirements in NB-3500. The valves were found to meet the technical requirements of NB-3500 applicable to small valves. Therefore, there are no technical differences between the installed Code Class 2 valves and the requirements for Class 1 valves that would reduce the assurance that the valves will perform their intended function. It is concluded that no increase in quality or safety would be realized by replacing the valves with valves constructed to Class 1 requirements.

Conclusion

From the preceding discussions, it is concluded that for the piping, tubing, and valves and associated fittings listed in Part 1 of this request, the technical, quality, and administrative differences between Section III requirements for Code Class 1 and Code Class 2 construction would have minimal impact on the ability of these items to perform their intended function. However, even if a break should occur, the consequences of such an event would be bounded by the design-basis small break loss-of-coolant accident event for Seabrook Station, which would be mitigated by the ECCS.

As demonstrated in Part 4 of this request, revising the current design configuration and replacing the affected piping, tubing, and valves with items fully meeting Code Class 1 requirements in accordance with Section III, Subsection NB would be a hardship or unusual difficulty. As demonstrated in this Part, revising the current design configuration and replacing the affected piping, tubing, and valves would provide minimal quality and safety benefit. Therefore, in accordance with 10 CFR 50.55a(a)(3)(ii), the basis for the proposed alternative demonstrates that compliance with Code Class 1 requirements of ASME Section III Subsection NB would result in hardship or unusual difficulty without a compensating increase in the level of quality or safety.

## 6. Duration of Proposed Relief Request

FPL Energy Seabrook requests approval of the alternative proposed in Part 5 of this request for the life of the plant (present design life plus, once approved, license renewal). No undue risk to the public health and safety is presented by this request.

## 7. Similar Precedents

- Letter from Robert A. Gramm (NRC) to Mr. C. Lance Terry (TXU Energy) dated 14 April, 2003 for Comanche Peak Comanche Peak Steam Electric Station, Units 1 and 2, by letter dated April 14, 2003 [ADAMS Accession No. ML031040482]

- Letter from Robert A. Gramm (NRC) to Mr. Rick A. Muench (WCNOC) dated 31 May, 2005 for Wolf Creek Generating Station, Unit 1 [ADAMS Accession No. ML051520526]

## 8. References


- Westinghouse Nuclear Safety Advisory Letter NSAL-00-006, "Pressurizer Upper Level Instrument Line Safety Classification," dated April 3, 2000.

- Westinghouse Nuclear Safety Advisory Letter NSAL-07-9, Rev. 1, "Safety Classification of Small Lines Connected to the Pressurizer Steam Space," dated August 11, 2008.

Figure 1

P&ID 1-RC-D20846

Reactor Coolant System Pressurizer

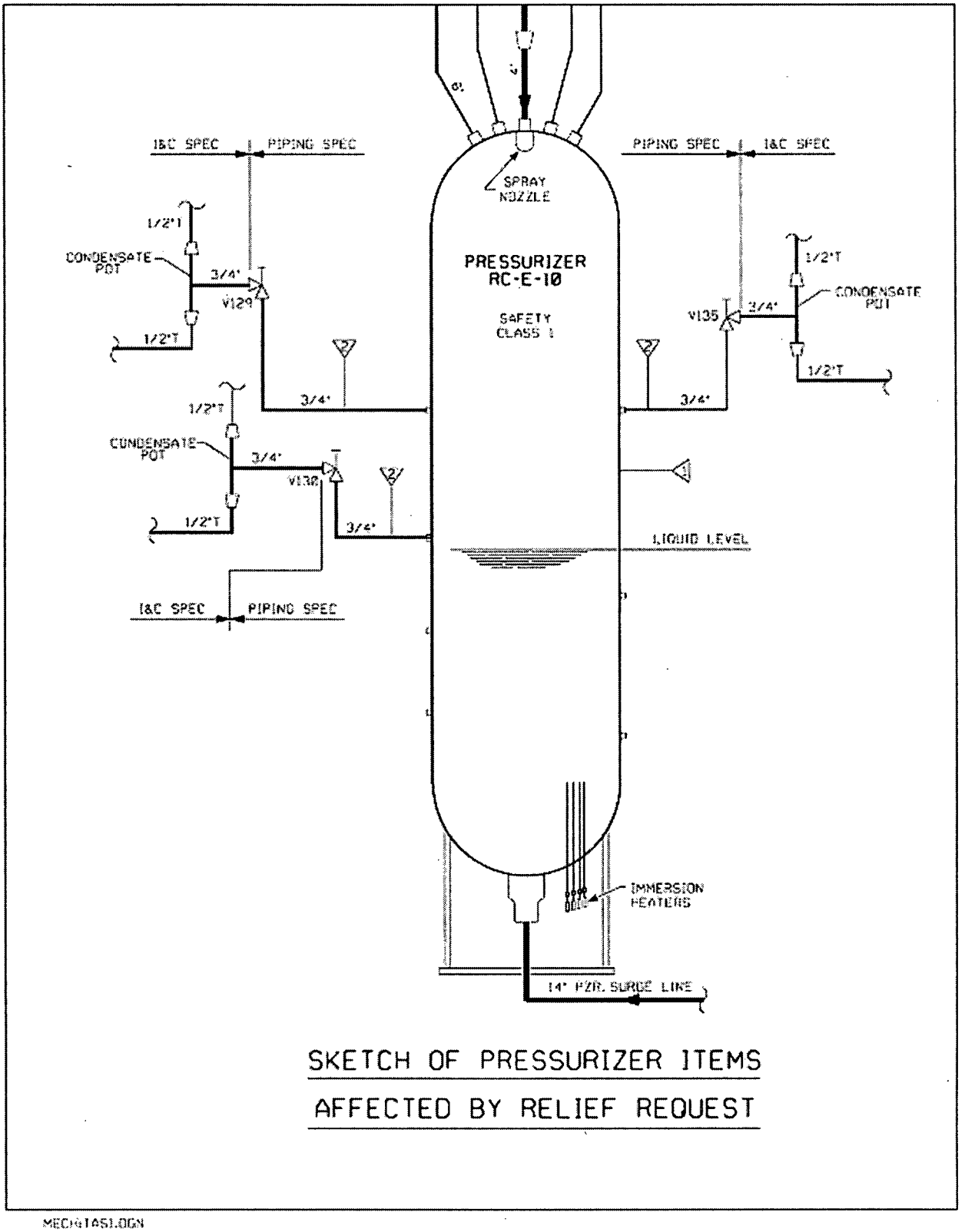
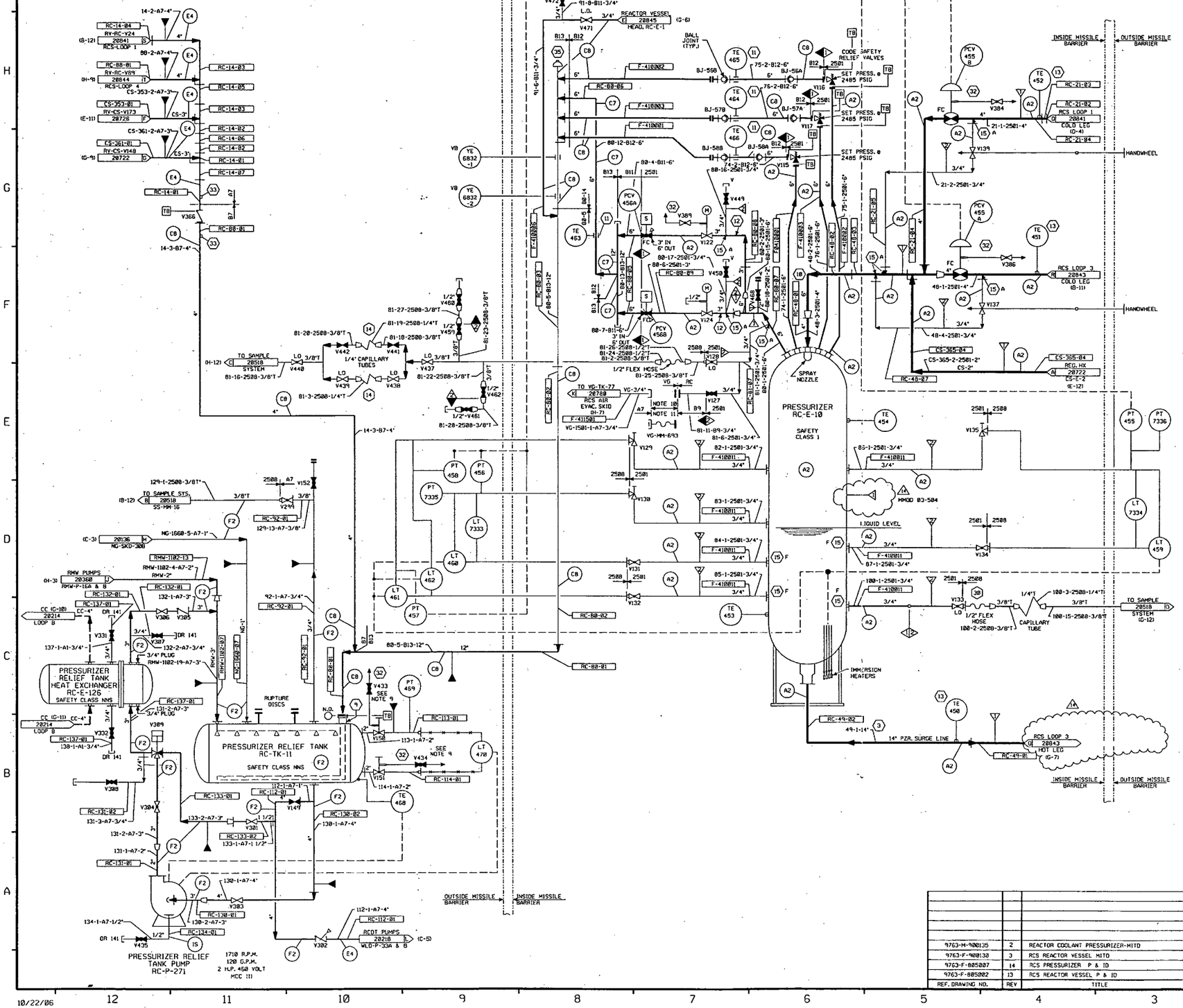

I&C SPEC
PIPING SPEC
PIPING SPEC
I&C SPEC
SPRAY NOZZLE
PRESSURIZER RC-E-10
SAFETY CLASS 1
1/2"T
CONDENSATE POT
3/4"
V129
1/2"T
3/4"
1/2"T
CONDENSATE POT
3/4"
V130
1/2"T
3/4"
I&C SPEC
PIPING SPEC
1/2"T
CONDENSATE POT
V135
3/4"
1/2"T
3/4"
LIQUID LEVEL
IMMERSION HEATERS
14" PZR. SURGE LINE
SKETCH OF PRESSURIZER ITEMS
AFFECTED BY RELIEF REQUEST
MECH1A51.DGN

Figure 2

NHY-P1D2084 6.DGN1

PID- 1-RC-D20846




FOR P&ID REFERENCE DRAWINGS, SYMBOLS AND ABBREVIATIONS REFER TO DRAWINGS P&ID - LEGEND 1 AND P&ID - LEGEND 2

## LEGEND

| | | DESIGN PRESSURE | TEST PRESSURE | MIN. TEST TEMP °F | TEST MEDIUM |
|---|---|---|---|---|---|
| | TEST BOUNDARY | | | | |
| TB | TEMPORARY TEST BOUNDARY | | | | |
| A2 | INTEGRITY TEST | 2485 PSIG | 3186/3292 PSIG | 100 | D.M. WATER |
| C7 | INTEGRITY TEST (IS) | 900 PSIG | 900 PSIG | 100 | D.M. WATER |
| C8 | INTEGRITY TEST (IS) | 600 PSIG | 900 PSIG | 100 | D.M. WATER |
| E4 | INTEGRITY TEST (IS) | 150 PSIG | 225/245 PSIG | 35 | D.M. WATER |
| F2 | INTEGRITY TEST (IS) | 100 PSIG | 150/170 PSIG | 35 | WATER |
| IS | INITIAL SERVICE | | N.O.P. | | |
| N | NO TEST REQUIRED | | | | |

NOTE:
A. VENTS & DRAINS WITH CAPS/BLIND FLANGES ETC. (ASME CL. 2 & 3, NMS) SHALL BE TESTED TO THE LAST ISOLATION VALVE.

NOTES:

1. ⬡ INDICATES GENERAL NOTE NUMBER, REFER TO DRAWING 20848 FOR GENERAL NOTES.
2. WORK THIS DRAWING WITH DRAWINGS 20840 THRU 20845 & 20848.
3. ALL LINES, EQUIPMENT, COMPONENTS AND INSTRUMENTS HAVE SYSTEM PREFIX RC, UNLESS NOTED OTHERWISE.
4. VENT, DRAIN & TEST CONN. CODE BREAKS ARE AT THE DOWNSTREAM END OF THE OUTER ISOLATION VALVE PER 1-NHY-805111 UNLESS NOTED OTHERWISE.
5. △ INDICATES REVISION LEVEL.
6. CLEANLINESS CLASS "B".
7. SO NO. IS NAH/NCH 281.
8. DELETED
9. VALVE STEM LEAK-OFF ISOLATION VALVES V433 & V434 ARE TO BE MAINTAINED CLOSED. VALVE STEM LEAK-OFF TO BE CONSIDERED INOPERABLE.
10. TYGON TUBING(REINFORCED POLYURETHANE "UREBRADE" TUBING TO BE INSTALLED WHEN REQUIRED DURING SHUTDOWN MODE FOR VENTING RC SYSTEM.
11. DURING PRE-OUTAGE PRESSURIZER PURGING, A TEMPORARY SPOOL PIECE, TAG 1-VG-MM-9580, (3/4" SS BRAIDED HOSE WITH A ROTOMETER) TO BE INSTALLED. TEMPORARY SPOOL PIECE WILL BE REMOVED FOLLOWING COMPLETION OF PURGING ACTIVITIES (DCR 97-15).

PORTIONS OF THIS DRAWING ARE

**NUCLEAR SAFETY RELATED**

| REF. DRAWING NO. | REV | TITLE |
|---|---|---|
| 9763-M-900135 | 2 | REACTOR COOLANT PRESSURIZER-MITD |
| 9763-F-900130 | 3 | RCS REACTOR VESSEL MITD |
| 9763-F-885007 | 14 | RCS PRESSURIZER P & ID |
| 9763-F-885002 | 13 | RCS REACTOR VESSEL P & ID |

| REV | DATE | DSGN | CHKD | CE | DESCRIPTION |
|---|---|---|---|---|---|
| 14 | 10/23/06 | BCS | JM | AC | INCORP. MMOD 03-584 DCN- 00, CORRECT CONTINUATION |
| 13 | 5/12/02 | MPW | JM | RRB | INCORP. DCR 02-002 DCN 00 PARTIAL |
| 12 | 12/10-97 | BCS | DWS | ETM | INCORP. DCR 97-16 DCN 00 & 04 |
| 11 | 6/13/97 | DWS | MPW | DMD | INCORP DCR 970008 DCN 00 |
| 10 | 5/20/97 | MPW | DWS | RRB | INCORP. DCR 96-05 CA0 |
| 9 | 5/14/97 | MPW | DWS | WF2 | PARTIAL INCORP. DCR 97-16 CA0 |
| 8 | 12/15/91 | RMC | FCB | BCL | INCORP. MMOD 91-511 CA01 |
| 7 | 9/24/91 | MRB | JM | WLD | INCORP. MMOD 91-592 CA0 |
| 6 | 8/26/91 | MRB | FCB | JW | INCORP. ECA'S 05/8050628 & 88/106542C DELETED: NOTE 8 & "J" DESIGNATION |
| 5 | 12/28/89 | MRB | CCM | MAC | INCORPORATED DCR 86-116 CA 6 MMOD 89-599 CA0 |
| 4 | 12/13/88 | MRB | GPM | MJY | INCORPORATED DRR 88-28 REV 0 REVISED: LEGEND NOTE A DELETED: TEST BOUNDARY SYMBOLS PER LEGEND NOTE A |
| 3 | 12/15/87 | GPM | DWS | PAG | REVD: NOTE 1,2 & 4, RENUMBERED NOTES, LEGEND NOTE A PER 9763-F-900200 & ANSI B31.1 1977 SEC. 137.1.2E, TRANSFERED TECHNICAL NOTES TO GEN. NOTES ON DWG. 1-RC-20848, EQUIP. CL. PER UE&C P&ID, ADDED ALPHA DESIGNATION FOR TEST NOTE, DETAIL LETTER DESIGNATION FOR FLOW RESTRICTOR, CONT. COORDS, ISO DWG NO REF DWG, P&ID REF NOTE DELETED: DUPLICATED INFO OF ASSOC. SYS'S. FLEX HOSES. |
| 2 | 11/6/86 | JDM | PAL | RPC | INCORP ECA 19/118538B |
| 1 | 9/26/86 | PAL | BCL | RRC | INCORP. ECA 19/118341A REV. LEAKOFF CONFIG. FOR VLVS. V122, V124, V150, V151, PCV-455A/C/V-455B ADDED NOTE 8 & 9-LT-7334, PT-458, PT-7335 ARE LOCALLY MNTD. ADDED LINE NUMBERS AND FLANGES; REMOVED NON-APPLICABLE REF. DWGS., ADDED PREFIX FOR "VE" INSTRUMENTS. |
| 0 | 6/27/86 | TAK | BCL | RRC | ISSUED FOR OPERATIONS |

**FPL ENERGY** Seabrook Station

REACTOR COOLANT SYSTEM
PRESSURIZER

PID- 1-RC-D20846

10/22/06