



**Commonwealth Edison**

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October 3, 1984

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D. C. 20005

SUBJECT: Byron Generating Station Units 1 and 2, Technical  
Specifications, NRC Docket Nos. ~~50~~-454 and 50-455

Dear Mr. Denton:

The continuing review of the Byron Station Technical Specifications has identified additional changes as noted on the enclosed attachments. It is requested that these changes be incorporated into the final draft of the Technical Specifications dated August 27, 1984, from B.J. Youngblood to D. Farrer.

Very truly yours,

Dennis L. Farrar  
Director, Nuclear Licensing

cc: Byron Resident Inspector  
Senior Tech Spec Coordinator  
Calvin Moon

*Boo!*  
*1/1*

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A PDR

ATTACHMENT 29

Byron Station proposes to modify Technical Specification 3/4.7.5 "Ultimate Heat Sink" as indicated on the attached page.

JUSTIFICATION

These revisions are requested based on discussions held on 9/27/84 between Gary Staley (NRC - Environmental and Hydrologic Engineering Branch) and Sargent & Lundy Engineering concerning Minimum Rock River flow and corresponding Rock River level.

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PLANT SYSTEMS

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3/4.7.5 ULTIMATE HEAT SINK

LIMITING CONDITION FOR OPERATION

3.7.5 The ultimate heat sink (UHS) shall be OPERABLE with:

- a. An essential service water pump discharge water temperature of less than or equal to 98°F, and
- b. A minimum Rock River water level at or above ~~700~~ <sup>670.6</sup> feet Mean Sea Level, USGS datum, at the Byron Screenhouse, with two essential service water make-up pumps OPERABLE, and
- c. Two deep wells OPERABLE ~~with the Rock River water level at or above 700 feet Mean Sea Level USGS datum, at the Byron Screenhouse.~~

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

- a. With the essential service water pump discharge water temperature not meeting the above requirement, be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. ~~With the minimum Rock River water level not meeting the above requirement, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.~~
- c. With <sup>only</sup> essential service water make-up pump OPERABLE restore two essential service water make-up pumps to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- d. With <sup>only</sup> ~~one~~ <sup>OPERABLE</sup> deep well ~~inoperable~~, restore <sup>two</sup> ~~both~~ deep wells to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.7.5.1 The UHS shall be determined OPERABLE at least once per 24 hours by verifying the essential service water pump discharge water temperature and the Rock River water level to be within their limits.

4.7.5.2 The deep wells shall be demonstrated OPERABLE:

- a. At least once per 31 days by starting each pump and operating it for at least 15 minutes and verifying that each valve (manual, power-operated, or automatic) in the flow path is in its correct position, and
- b. At least once per 18 months by cycling each testable valve in the flow path through at least one complete cycle of full travel.

b. With Rock River water level less than 670.6', verify Rock River flow is greater than 700 cfs and Rock River level is greater than 664.7'. Otherwise, be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours and implement proper plant procedures.

ATTACHMENT 35

Byron Station proposes to modify Table 2.2-1, Table Notations (pages 2-7 and 2-8) as indicated on the attached copies.

Justification

These revisions are requested based on recent changes to the Setpoint-Study as provided by Westinghouse letter CBW-4769 (8/17/84) W. E. Kortier to J. D. Deress.



TABLE 2.2-1 (Continued)

## TABLE NOTATIONS

NOTE 1: OVERTEMPERATURE  $\Delta T$ 

$$\Delta T \frac{(1 + \tau_1 S)}{(1 + \tau_2 S)} \left( \frac{1}{1 + \tau_3 S} \right) \leq \Delta T_0 [K_1 - K_2 \frac{(1 + \tau_4 S)}{(1 + \tau_5 S)} [T \left( \frac{1}{1 + \tau_6 S} \right) - T'] + K_3(P - P') - f_1(\Delta T)]$$

- Where:
- $\Delta T$  = Measured  $\Delta T$  by RTD Manifold Instrumentation,
  - $\frac{1 + \tau_1 S}{1 + \tau_2 S}$  = Lead-lag compensator on measured  $\Delta T$ ,
  - $\tau_1, \tau_2$  = Time constants utilized in lead-lag compensator for  $\Delta T$ ,  $\tau_1 = 8$  s,  
 $\tau_2 = 3$  s,
  - $\frac{1}{1 + \tau_3 S}$  = Lag compensator on measured  $\Delta T$ ,
  - $\tau_3$  = Time constants utilized in the lag compensator for  $\Delta T$ ,  $\tau_3 = 0$  s,
  - $\Delta T_0$  = Indicated  $\Delta T$  at RATED THERMAL POWER,
  - $K_1$  = ~~1.48~~ 1.164
  - $K_2$  = 0.0265/°F,
  - $\frac{1 + \tau_4 S}{1 + \tau_5 S}$  = The function generated by the lead-lag compensator for  $T_{avg}$  dynamic compensation,
  - $\tau_4, \tau_5$  = Time constants utilized in the lead-lag compensator for  $T_{avg}$ ,  $\tau_4 = 33$  s,  
 $\tau_5 = 4$  s,
  - $T$  = Average temperature, °F,
  - $\frac{1}{1 + \tau_6 S}$  = Lag compensator on measured  $T_{avg}$ .

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TABLE 2.2-1 (Continued)

TABLE NOTATIONS (Continued)

NOTE 1: (Continued)

- $\tau_0$  = Time constant utilized in the measured  $T_{avg}$  lag compensator,  $\tau_0 = 0$  s.
- $T'$   $\leq$  588.4°F (Nominal  $T_{avg}$  at RATED THERMAL POWER),
- $K_3$  = 0.00134,
- $P$  = Pressurizer pressure, psig,
- $P'$  = 2235 psig (Nominal RCS operating pressure),
- $S$  = Laplace transform operator,  $s^{-1}$ ,

and  $f_1(\Delta I)$  is a function of the indicated difference between top and bottom detectors of the power-range neutron ion chambers; with gains to be selected based on measured instrument response during plant STARTUP tests such that:

(i) for  $q_t - q_b$  between  $-\infty\%$  and  $+10\%$ ,  $f_1(\Delta I) = 0$ , where  $q_t$  and  $q_b$  are percent RATED THERMAL POWER in the top and bottom halves of the core respectively, and  $q_t + q_b$  is total THERMAL POWER in percent of RATED THERMAL POWER;

~~(ii) for each percent that the magnitude of  $q_t - q_b$  exceeds 42%, the  $\Delta I$  Trip Setpoint shall be automatically reduced by 2.86% of its value at RATED THERMAL POWER, and~~

(iii) for each percent that the magnitude of  $q_t - q_b$  exceeds  $+10\%$ , the  $\Delta I$  Trip Setpoint shall be automatically reduced by  $\frac{2.86\%}{2.0\%}$  of its value at RATED THERMAL POWER.

NOTE 2: The channel's maximum Trip Setpoint shall not exceed its computed Trip Setpoint by more than 3.3% of  $\Delta T$  span.

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## ATTACHMENT 36

Byron Station proposes to modify Table 3.3-6 Table Notations (pg 3/4 3-41) as shown on the attached copy.

### Justification

Currently ACTION STATEMENT 29 requires that if both channels are inoperable, a portable monitor be provided and in accordance with ACTION b of Specification 3.9.12 all operations involving movement of fuel or loads over the storage pool be suspended.

This change is based upon conversation with Fred Anderson (NRC) on 9/27/84. When a portable monitor is used, there is no means to automatically place the Fuel Handling Building Exhaust System in the emergency mode and exhaust through the HEPA and charcoal filters. Therefore, at least one Fuel Handling Building Exhaust filter plenum must be operating in the emergency mode whenever a portable monitor is used. The change proposed would require that if both channels were inoperable a portable monitor would be provided and the Fuel Handling Building Exhaust System would be placed in operation in the emergency mode. It is not necessary to suspend movement of fuel or loads over the storage pool because the radiation monitors have been replaced by a portable monitor. Only if the Fuel Handling Building Exhaust System could not be placed in operation then the requirements of ACTION b of Specification 3.9.12 would be met.

TABLE NOTATIONS

- \*With new fuel or irradiated fuel in the fuel storage areas or fuel building.
- \*\*Trip Setpoint is to be established such that the actual submersion dose rate would not exceed 10 mR/hr in the containment building. For containment purge or vent the Setpoint value may be increased up to twice the maximum concentration activity in the containment determined by the sample analysis performed prior to each release in accordance with Table 4.11-2 provided the value does not exceed 10% of the equivalent limits of Specification 3.11.2.1.a in accordance with the methodology and parameters in the ODCM.

ACTION STATEMENTS

- ACTION 26 - With less than the Minimum Channels OPERABLE requirement, operation may continue provided the containment purge valves are maintained closed.
- ACTION 27 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, within 1 hour isolate the Control Room Ventilation System and initiate operation of the Control Room Make-up System.
- ACTION 28 - Must satisfy the ACTION requirement for Specification 3.4.6.1.
- ACTION 29 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, ACTION a. of Specification 3.9.12 must be satisfied. With both channels inoperable, provide an appropriate portable continuous monitor with the same Alarm Setpoint in the fuel pool area and satisfy ACTION b. of Specification 3.9.12 with one Fuel Handling Building Exhaust filter plenum in operation. Otherwise satisfy ACTION b. of Specification 3.9.12.

## ATTACHMENT 37

Byron Station proposes to change the definition of DIGITAL CHANNEL OPERATIONAL TEST (page 1-2) and Table Notations (1) and (2) of Tables 4.3-8 (page 3/4 3-65) and 4.3-9 (page 3/4 3-74) and the Bases (page B3/4 3-3) as shown on the attached pages.

### Justifications

Standard Technical Specifications do not define a DIGITAL CHANNEL OPERATIONAL TEST or describe what will be required in table notations for a DIGITAL CHANNEL OPERATIONAL TEST. The current versions in the table notations were originally taken from the requirements and definitions of an ANALOG CHANNEL OPERATIONAL TEST. As such, they are ambiguous and open to various interpretations when applied to a digital system. To avoid this ambiguity and possible misinterpretation, the proposed changes clearly state what is meant by a DIGITAL CHANNEL OPERATIONAL TEST and what the requirements of this test will be.



INITIATIONS

CONTAINMENT INTEGRITY

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1.7 CONTAINMENT INTEGRITY shall exist when:

- a. All penetrations required to be closed during accident conditions are either:
  - 1) Capable of being closed by an OPERABLE containment automatic isolation valve system, or
  - 2) Closed by manual valves, blind flanges, or deactivated automatic valves secured in their closed positions, except as provided in Table 3.6-1 of Specification 3.6.3.
- b. All equipment hatches are closed and sealed,
- c. Each air lock is in compliance with the requirements of Specification 3.6.1.3,
- d. The containment leakage rates are within the limits of Specification 3.6.1.2, and
- e. The sealing mechanism associated with each penetration (e.g., welds, bellows, or C-rings) is OPERABLE.

CONTROLLED LEAKAGE

1.8 CONTROLLED LEAKAGE shall be that seal water flow supplied to the reactor coolant pump seals.

CORE ALTERATION

1.9 CORE ALTERATION shall be the movement or manipulation of any component within the reactor vessel with the vessel head removed and fuel in the vessel. Suspension of CORE ALTERATION shall not preclude completion of movement of a component to a safe conservative position.

DIGITAL CHANNEL OPERATIONAL TEST

*data base manipulation*

*Software*

1.10 A DIGITAL CHANNEL OPERATIONAL TEST shall consist of exercising the digital computer hardware using diagnostic programs and injecting simulated process data into the channel to verify OPERABILITY of alarm and/or trip functions.

DOSE EQUIVALENT I-131

1.11 DOSE EQUIVALENT I-131 shall be that concentration of I-131 (microCurie/gram) which alone would produce the same thyroid dose as the quantity and isotopic mixture of I-131, I-132, I-133, I-134, and I-135 actually present. The thyroid dose conversion factors used for this calculation shall be those listed in Table III of TID-14844, "Calculation of Distance Factors for Power and Test Reactor Sites."

TABLE 4.3-8 (Continued)

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TABLE NOTATIONS

- (1) The DIGITAL CHANNEL OPERATIONAL TEST shall also demonstrate that automatic isolation of this pathway and control room alarm annunciation occur if any of the following conditions exists:
  - a. Instrument indicates measured levels above the Alarm/Trip Setpoint, or
  - ~~b. Circuit failure, or~~
  - ~~c. Instrument indicates a downscale failure, or~~
  - ~~d. Instrument controls not set in operate mode.~~

} See INSERT  
①
- (2) The DIGITAL CHANNEL OPERATIONAL TEST shall also demonstrate that control room alarm annunciation occurs if any of the following conditions exists:
  - a. Instrument indicates measured levels above the Alarm Setpoint, or
  - ~~b. Circuit failure, or~~
  - ~~c. Instrument indicates a downscale failure, or~~
  - ~~d. Instrument controls not set in operate mode.~~

} See INSERT  
①
- (3) The initial CHANNEL CALIBRATION shall be performed using one or more of the reference standards certified by the National Bureau of Standards (NBS) or using standards that have been obtained from suppliers that participate in measurement assurance activities with NBS. These standards shall permit calibrating the system over its intended range of energy and measurement range. For subsequent CHANNEL CALIBRATION, sources that have been related to the initial calibration shall be used.
- (4) CHANNEL CHECK shall consist of verifying indication of flow during periods of release. CHANNEL CHECK shall be made at least once per 24 hours on days on which continuous, periodic, or batch releases are made.

TABLE 4.3-9 (Continued)

TABLE NOTATIONS

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\* At all times.

\*\* During WASTE GAS HOLDUP SYSTEM operation.

- (1) The DIGITAL CHANNEL OPERATIONAL TEST shall also demonstrate that automatic isolation of this pathway and control room alarm annunciation occur if any of the following conditions exists:
- a. Instrument indicates measured levels above the Alarm/Trip Setpoint, or
  - ~~b. Circuit failure, or~~
  - ~~c. Instrument indicates a downscale failure, or~~
  - ~~d. Instrument controls not set in operate mode.~~
- } SEE INSERT  
①
- (2) The DIGITAL CHANNEL OPERATIONAL TEST shall also demonstrate that control room alarm annunciation occurs if any of the following conditions exists:
- a. Instrument indicates measured levels above the Alarm Setpoint, or
  - ~~b. Circuit failure, or~~
  - ~~c. Instrument indicates a downscale failure, or~~
  - ~~d. Instrument controls not set in operate mode.~~
- } SEE INSERT  
①
- (3) The initial CHANNEL CALIBRATION shall be performed using one or more of the reference standards certified by the National Bureau of Standards (NBS) or using standards that have been obtained from suppliers that participate in measurement assurance activities with NBS. These standards shall permit calibrating the system over its intended range of energy and measurement range. For subsequent CHANNEL CALIBRATION, sources that have been related to the initial calibration shall be used.
- (4) The CHANNEL CALIBRATION shall include the use of standard gas samples containing hydrogen and nitrogen.
- (5) The CHANNEL CALIBRATION shall include the use of standard gas samples containing oxygen and nitrogen.

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## INSERT ①

1)

- b. MONITOR LOSS OF COMMUNICATIONS (ALARM ONLY), OR
- c. DETECTOR LOSS OF COUNTS, OR
- d. DETECTOR CHECK SOURCE TEST FAILURE, OR
- e. INSTRUMENT LOSS OF POWER, OR
- f. DETECTOR CHANNEL OUT OF SERVICE, OR
- g. MONITOR LOSS OF SAMPLE FLOW.

2)

- b. MONITOR LOSS OF COMMUNICATIONS, OR
- c. DETECTOR LOSS OF COUNTS, OR
- d. DETECTOR CHECK SOURCE TEST FAILURE, OR
- e. INSTRUMENT LOSS OF POWER, OR
- f. DETECTOR CHANNEL OUT OF SERVICE
- g. MONITOR LOSS OF SAMPLE FLOW.



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Engineered Safety Features Actuation System Interlocks

The Engineered Safety Features Actuation System interlocks perform the following functions:

- P-4 Reactor tripped - Actuates Turbine trip, closes main feedwater valves on  $T_{avg}$  below Setpoint, prevents the opening of the main feedwater valves which were closed by a Safety Injection or High Steam Generator Water Level signal, allows Safety Injection block so that components can be reset or tripped.  
Reactor not tripped - prevents manual block of Safety Injection.
- P-11 On increasing pressure P-11 automatically reinstates Safety Injection actuation on low pressurizer pressure and low steamline pressure and automatically blocks steamline isolation on negative steamline pressure rate. On decreasing pressure; P-11 allows the manual block of Safety Injection low pressurizer pressure and low steamline pressure and allows steamline isolation on negative steamline pressure rate to become active upon manual block of low steamline pressure SI.
- P-12 On increasing reactor coolant loop temperature, P-12 automatically provides an arming signal to the Steam Dump System. On decreasing reactor coolant loop temperature, P-12 automatically removes the arming signal from the Steam Dump System.
- P-14 An increasing steam generator water level, P-14 automatically trips all feedwater isolation valves and inhibits feedwater control valve modulation.

3/4.3.3 MONITORING INSTRUMENTATION3/4.3.3.1 RADIATION MONITORING FOR PLANT OPERATIONS TRIP FUNCTION

The OPERABILITY of the radiation monitoring instrumentation for plant operations ensures that: (1) the associated ACTION will be initiated when the radiation level monitored by each channel or combination thereof reaches its setpoint, (2) ~~the specified coincidence logic is maintained,~~ and (3) sufficient redundancy is maintained to permit a channel to be out-of-service for testing or maintenance. The radiation monitors for plant operations senses radiation levels in selected plant systems and locations and determines whether or not predetermined limits are being exceeded. If they are, ~~the signals are combined into logic matrices sensitive to combinations indicative of various accidents and abnormal conditions. Once the required logic combination is completed,~~ the system sends actuation signals to initiate alarms <sup>and</sup> automatic isolation action and actuation of Emergency Exhaust or Ventilation Systems. The radiation monitor Setpoints given in the requirements are assumed to be values established above normal background radiation levels for the particular area.



ATTACHMENT 38

Byron Station proposes to modify Table 3.3-11 Fire Detection Instruments (page 3/4 3-59), Table 3.7-5 Fire Hose Stations (pages 3/4 7-37 and 3/4 7-38) and Table 3.8-1 Containment Penetration Conductor Overcurrent Protective Devices (pages 3/4 8-19 to 3/4 8-27) as indicated on the attached copies.

Justification

These changes are requested based on recent review by Byron Station as part of the Technical Specification certification process.

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TABLE 3.3-11 (Continue)

FIRE DETECTION INSTRUMENTS

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| <u>INSTRUMENT LOCATION</u> | <u>INSTRUMENT TYPE*</u> | <u>TOTAL NUMBER OF INSTRUMENTS</u> |              |              |
|----------------------------|-------------------------|------------------------------------|--------------|--------------|
|                            |                         | <u>Heat</u>                        | <u>Flame</u> | <u>Smoke</u> |
| 6. Station Battery Room    |                         |                                    |              |              |
| Zone 67 Elev 451           | Detection               |                                    |              | 13           |
| 7. Diesel Generator Room   |                         |                                    |              |              |
| Zone 37 Elev 401           | Suppression             | 4                                  |              |              |
| Zone 38 Elev 401           | Suppression             | 4                                  |              |              |
| Zone 71 Elev 401           | Detection               |                                    | 1            |              |
| Zone 72 Elev 401           | Detection               |                                    | 1            |              |
| 8. Diesel Fuel Storage     |                         |                                    |              |              |
| Zone 39 Elev 401           | Suppression             | 1                                  |              |              |
| Zone 40 Elev 401           | Suppression             | 1                                  |              |              |
| Zone 27 Elev 383           | Suppression             | 3                                  |              |              |
| Zone 28 Elev 383           | Suppression             | 3                                  |              |              |
| Zone 10 Elev 383           | Detection               |                                    |              | 6            |
| 9. Safety Related Pumps    |                         |                                    |              |              |
| Zone 41 Elev 383           | Suppression             | 2                                  |              |              |
| Zone 42 Elev 383           | Suppression             | 1                                  |              |              |
| Zone 16 Elev 364           | Detection               |                                    |              | 2            |
| Zone 18 Elev 364           | Detection               |                                    |              | 2            |
| Zone 19 Elev 364           | Detection               |                                    |              | 3            |
| Zone 20 Elev 346           | Detection               |                                    |              | 3            |
| Zone 21 Elev 346           | Detection               |                                    |              | 3            |
| Zone 52 RSH                | Suppression             | 3                                  |              |              |
| 10. Fuel Storage           |                         |                                    |              |              |
| Zone 39 Elev 401           | Detection               |                                    |              |              |
| Zone 38 Elev 426           | Detection               |                                    | 3            | 29           |

TABLE NOTATIONS

\*A single detector in a zone marked "Detection" will alarm in the Main Control Room. A single detector in a zone marked "Suppression" will initiate suppression and alarm in the Main Control Room.

\*\*These are Containment Ventilation temperature switches. Upon receipt of a Hi-Hi temperature, suppression must be manually initiated. These switches are not 720 supervised.

\*\*\*The fire detection instruments located within the containment are not required to be OPERABLE during the performance of Type A containment leakage rate tests.

TABLE 3.7-5 (Continued)

FIRE HOSE STATIONS

| LOCATION  | ELEVATION | HOSE RACK REEL | ANGLE VALVE        |
|---|-----------|----------------|--------------------|
| Aux. Bldg. (Continued)                              |           |                |                    |
| M-18: By Aux. Feedwater motor driven pump 1A        | 387       | 108            | OFFP383            |
| N-23: By remote shutdown panel U-1                  | 387       | 111            | OFFP376            |
| Q-15: By 480V MCC 132X3                             | 387       | 113            | OFFP382            |
| V-18: By letdown heat exchanger                     | 387       | 114            | OFFP379            |
| P-7: West Wall 6.9 kV switchgear room               | 455       | 20             | OFFP324            |
| L-11: In UC HVAC Rm OA of LCSR C-1                  | 455       | 22             | OFFP332 ← INSERT A |
| M-8: South wall of battery room                     | 451       | 279            | OFFP638            |
| M-26: South wall of battery room                    | 451       | 280            | OFFP639            |
| M-18: North wall U-1 AB by door                     | 444       | 238*           | OFFP463            |
| L-7: East wall LCSR A-1                             | 443       | 207*           | OFFP330            |
| M-10: In the southeast corner of LCSR B-1           | 443       | 208*           | OFFP327            |
| P-10: In the southwest corner of LCSR B-1           | 443       | 209*           | OFFP325            |
| M-13: South wall of LCSR C-1                        | 443       | 210*           | OFFP326            |
| P-13 <del>P-15</del> : West wall of LCSR D-1        | 443       | 211*           | OFFP328            |
| S-21: By cabinet 2RY01EC (elec. pen. area)          | 431       | 229            | OFFP454            |
| S-24: By U-2 cont. shield wall (elec pen. area)     | 431       | 230            | OFFP455 ← INSERT B |
| S-12: By U-1 cont. shield wall (elec pen. area)     | 431       | 237            | OFFP462 ← INSERT C |
| P-11: Outside Laundry Room                          | 430       | 52             | OFFP313            |
| Q-19: By U-2 VCT valve aisle                        | 430       | 54             | OFFP342            |
| P-24: By radwaste evaporator                        | 430       | 55             | OFFP343            |
| V-17: By east door to decon/change area             | 430       | 58             | OFFP319            |
| V-17: By west door to decon/change area             | 430       | 61             | OFFP320 ← INSERT D |
| L-11: By waste oil tank room                        | 405       | 90             | OFFP315            |
| P-18: By elevator                                   | 405       | 91             | OFFP318            |
| P-23: By spent resin pumps                          | 405       | 92             | OFFP349            |
| Q-11: By laundry tanks                              | 405       | 93             | OFFP314            |
| S-21: East of U-2 hydrogen recombiner               | 405       | 94             | OFFP348            |
| V-21: West of U-2 hydrogen recombiner               | 405       | 95             | OFFP345            |
| V-15: West of U-1 hydrogen recombiner control panel | 405       | 96             | OFFP316            |

\*Fire hoses that do not supply the primary means of fire suppression.

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TABLE 3.7-5 (Continued)

## FIRE HOSE STATIONS

| LOCATION   | ELEVATION | HOSE RACK REEL | ANGLE VALVE |
|--|-----------|----------------|-------------|
| Aux. Bldg. (Continued)   |           |                |             |
| S-15: East of U-1 hydrogen recombiner  | 405       | 97             | OFP317      |
| N-11: By the recycle holdup tanks  | 368       | 130            | OFP373      |
| M-13 <del>M-14</del> : By the U-1 stairs   | 368       | 131            | OFP374      |
| P-13 <del>P-14</del> : By panel 1PL84JB  | 368       | 132            | OFP369      |
| L-20: By the U-2 stairs  | 368       | 133            | OFP355      |
| P-21: By the blowdown condenser  | 368       | 134            | OFP356      |
| L-25: By the PW <del>W</del> pumps <span style="margin-left: 20px;">} M/U</span> | 368       | 135            | OFP361      |
| N-25: By chemical drain tank   | 368       | 136            | OFP357      |
| S-18: By panel 1PL86J  | 368       | 138            | OFP362      |
| Q-11: By Aux. Bldg. floor drain tanks  | 368       | 139            | OFP368      |
| U-15: By U-1 spray add tank  | 368       | 140            | OFP372      |
| P-11: By recycle evaporator feed pumps   | 350       | 151            | OFP381      |
| M-13: By U-1 stairs  | 350       | 152            | OFP370      |
| N-23: By gas decay tanks   | 350       | 154            | OFP352      |
| Q-19: By "B" Aux. Bldg. Equip. drain tank  | 350       | 155            | OFP365      |
| Q-17: By "A" Aux. Bldg. Equip. drain tank  | 350       | 156            | OFP371      |
| Q-13: By collection sump pumps   | 350       | 157            | OFP380      |
| S-18: Between moderating heat exchangers   | 350       | 158            | OFP354      |
| V-18: Between BR chiller units   | 350       | 161            | OFP353      |
| W-15: By CS pump 1A  | 350       | 163            | OFP367      |
| M-13: By leak detection sump   | 334       | 165            | OFP448      |
| P-18: By elevator pit  | 334       | 166            | OFP449      |
| Fuel Hand. Bldg.   |           |                |             |
| Z-15: South of decon. area   | 430       | 170            | OFP389      |
| X-21: North of spent fuel pool   | 430       | 171            | OFP386      |
| Z-15: By 480V MCC 134X6  | 405       | 172            | OFP388      |
| AA-19: Outside FC pump room  | 405       | 173            | OFP387      |
| Cont. #1   |           |                |             |
| R-17: By reactor head assembly area  | 430       | 62             | 1FP163      |
| R-2: By accumulator tank IC  | 430       | 63             | 1FP154      |

← INSERT E

← INSERT F

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Inserts to pages 3/4 7-37 and 3/4 7-38

| <u>LOCATION</u>                                     | <u>ELEVATION</u> | <u>HOSE<br/>RACK<br/>REEL</u> | <u>ANGLE VALVE</u> |
|---|------------------|-------------------------------|--------------------|
| Aux. Bldg.  |                  |                               |                    |
| <u>INSERT A</u>                                     |                  |                               |                    |
| L-25: By OE : HVAC room                             | 455              | 27                            | OFP335             |
| <u>INSERT B</u>                                     |                  |                               |                    |
| S-15: By Pzr htr. transformer<br>(elec. pen. area)  | 431              | 236                           | OFP461             |
| <u>INSERT C</u>                                     |                  |                               |                    |
| Q-10: Back of Div. 11 swgr room                     | 430              | 283                           | OFP640             |
| <u>INSERT D</u>                                     |                  |                               |                    |
| S-15: By Pzr. htr. transformer<br>(elec. pen. area) | 419              | 174                           | OFP 322            |
| Q-10: By electrical penetration area                | 419              | 205                           | OFP321             |
| <u>INSERT E</u>                                     |                  |                               |                    |
| V-18: By U-2 cent. chg. pump room                   | 368              | 141                           | OFP366             |
| <u>INSERT F</u>                                     |                  |                               |                    |
| P-18: By 1B SX pump room                            | 334              | 167                           | OFP351             |
| M-23: By 1B SX pump room                            | 334              | 168                           | OFP350             |



TABLE 3.8-1  
CONTAINMENT PENETRATION CONDUCTOR  
OVERCURRENT PROTECTIVE DEVICES

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| <u>PROTECTIVE DEVICE<br/>NUMBER AND LOCATION</u>          | <u>DEVICE</u>     |
|---|-------------------|
| 1. 6.9 kV Switchgear                                      |                   |
| 1RC01PA-RCPA<br>Bus 157 Cub 1                             | Primary           |
| Bus 157 Norm. Feed<br>ACB 1571                            | Backup            |
| Bus 157 Emerg. Feed<br>ACB 1572                           | Backup            |
| 1RC01PB-RCPB<br>Bus 156 Cub 2                             | Primary           |
| Bus 156 Norm. Feed<br>ACB 1561                            | Backup            |
| Bus 156 Emerg. Feed<br>ACB 1562                           | Backup            |
| 1RC01PC-RCPC<br>Bus 158 Cub 5                             | Primary           |
| Bus 158 Norm. Feed<br>ACB 1582                            | Backup            |
| Bus 158 Emerg. Feed<br>ACB 1581                           | Backup            |
| 1RC01PD - RCPD<br>Bus 159 Cub 5                           | Primary           |
| Bus 159 Norm. Feed<br>ACB 159 <del>2</del>                | Backup            |
| Bus 159 Emerg. Feed<br>ACB 159 <del>1</del>               | Backup            |
| 2. 480V Switchgear  |                   |
| 1RY03EA - Pzr.<br>Htr. Backup Group A<br>Compt. A1-A6, B1 | Primary<br>Backup |
| 1RY03EB - Pzr.<br>Htr. Backup Group B<br>Compt. B1-B6, A1 | Primary<br>Backup |

X

X

X

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TABLE 3.8-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR  
OVERCURRENT PROTECTIVE DEVICES

| <u>PROTECTIVE DEVICE<br/>NUMBER AND LOCATION</u>                                | <u>DEVICE</u>     |
|---|-------------------|
| 2. 480V Switchgear (Continued)  |                   |
| 1RY03EC - Pzr.<br>Htr. Backup Group C<br>Compt. A1-A6 <del>31</del>             | Primary<br>Backup |
| 1RY03ED - Pzr.<br>Htr. Backup Group D<br>Compt. B1-B6 <del>A1</del>             | Primary<br>Backup |
| 3. 480V A.C. Ckt. Bkrs.   |                   |
| 1VP01CA - RCFC Fan<br>1A Low Speed Feed<br>Bkr Swgr 131X<br>Cub 4C              | Primary           |
| Hi Speed Feed Bkr<br>Swgr 131X Cub 5C   | Primary           |
| 1VP01CC - RCFC Fan<br>1C Low Speed<br>Feed Bkr Swgr<br>131X Cub <del>1</del> 2C | Primary           |
| Hi Speed Feed Bkr<br>Swgr 131X Cub <del>5</del> 3C                              | Primary           |
| Bus 131X Norm.<br>Feed 141 Swgr.,<br>Cub <del>14, 19</del><br>ACB 1415X         | Backup            |
| 1VP01CB - RCFC Fan 1B<br>Low Speed Feed Bkr<br>Swgr 132X Cub 4C                 | Primary           |
| Hi Speed Feed Bkr<br>Swgr 132X Cub 5C   | Primary           |
| 1VP01CD - RCFC Fan 1D<br>Low Speed Feed Bkr<br>Swgr 132X Cub 2C                 | Primary           |

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TABLE 3.8-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR

OVERCURRENT PROTECTIVE DEVICES

| <u>PROTECTIVE DEVICE<br/>NUMBER AND LOCATION</u>                        | <u>DEVICE</u>     |
|---|-------------------|
| 3. 48QV A.C. Ckt. Bkrs. (Continued)                                     |                   |
| Hi Speed Feed Bkr<br>Swgr 132X Cub 3C                                   | Primary           |
| Bus 132X Norm. Feed<br>142 Swgr., Cub 14,<br>ACB <del>1423X</del> 1425X | Backup            |
| 4. 480V Molded Case Ckt. Bkts. (MCCB)                                   |                   |
|   | <u>MCC 133X4</u>  |
| 1RC01PA-A<br>Cub B1   | Primary<br>Backup |
| 1RC01PA-B<br>Cub B2   | Primary<br>Backup |
| 1HC22G<br>Cub B3  | Primary<br>Backup |
| 1FH03G<br>Cub B4  | Primary<br>Backup |
| 1VP05CA<br>Cub C1   | Primary<br>Backup |
| 1RF03P<br>Cub C2  | Primary<br>Backup |
| 1RC01PD-A<br>Cub D1   | Primary<br>Backup |
| 1RC01PD-B<br>Cub D2   | Primary<br>Backup |
| 1RF02PB<br>Cub D4   | Primary<br>Backup |
| 1RF01P<br>Cub D5  | Primary<br>Backup |

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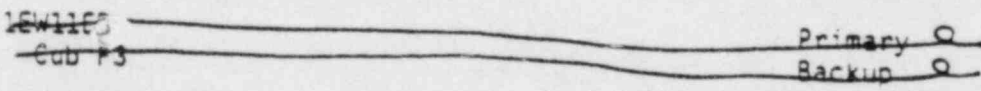
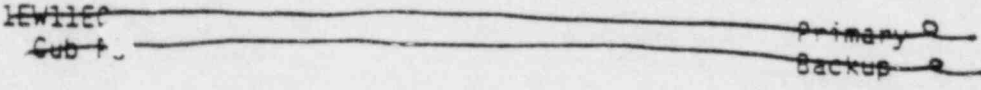

TABLE 3.8-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR  
OVERCURRENT PROTECTIVE DEVICES

PROTECTIVE DEVICE  
NUMBER AND LOCATION

DEVICE

4. 480V Molded Case Ckt. Bkts. (MCCB) (Continued)

|                               |  |                               |              |
|-------------------------------|--|-------------------------------|--------------|
|                               |  | <u>MCC 133X4</u>              | X            |
| 1RE01PA<br>Cub D6             |  | Primary<br>Backup             |              |
| 1VP02CA<br>Cub E1             |  | Primary<br>Backup             |              |
| 1VP04CA<br>Cub E2             |  | Primary<br>Backup             |              |
| 1VP04CC<br>Cub F1             |  | Primary<br>Backup             |              |
| 1EW11EA, B, C<br>Cub F3       |  | Primary<br>Backup             | X            |
| <del>1EW11EB<br/>Cub F3</del> |  | <del>Primary<br/>Backup</del> | <del>X</del> |
| <del>1EW11EC<br/>Cub F3</del> |  | <del>Primary<br/>Backup</del> | <del>X</del> |
| 1IC02EA<br>Cub F5             |  | Primary<br>Backup             |              |
| 1IC02EB<br>Cub G1             |  | Primary<br>Backup             |              |
| 1IC02EC<br>Cub G2             |  | Primary<br>Backup             |              |
| 1IC02EF<br>Cub A1             |   | Primary<br>Backup             | X            |
| 1IC02EE<br>Cub A2             |  | Primary<br>Backup             |              |
| 1IC02ED<br>Cub A3             |  | Primary<br>Backup             |              |

MCC 134X5

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TABLE 3.8-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR  
OVERCURRENT PROTECTIVE DEVICES

| <u>PROTECTIVE DEVICE<br/>NUMBER AND LOCATION</u>  | <u>DEVICE</u>                 |   |
|---|-------------------------------|---|
| 4. 480V Molded Case Ckt. Bkts. (MCCB) (Continued) |                               |   |
|   | <del>MCC 133x4</del><br>133x5 | X |
| 1<br>FH02J<br>Cub G1                              | Primary<br>Backup             | X |
| 1<br>FH03J<br>Cub G2                              | Primary<br>Backup             | X |
| 1RC01PB-B<br>Cub B1                               | Primary<br>Backup             |   |
| 1RE01PB<br>Cub B3                                 | Primary<br>Backup             |   |
|   | <del>MCC 134x5</del>          | X |
| 1RC01PC-A<br>Cub C1                               | Primary<br>Backup             |   |
| 1RC01PC-B<br>Cub C2                               | Primary<br>Backup             |   |
| 1VP05CB<br>Cub J1                                 | Primary<br>Backup             |   |
| 1RC01PB-A<br>Cub C3                               | Primary<br>Backup             |   |
| 1HC65 <sup>G</sup> -A<br>Cub D1                   | Primary<br>Backup             | X |
| 1VP02CB<br>Cub F1                                 | Primary<br>Backup             |   |
| 1RC01R-A<br>Cub F2 A & B                          | Primary<br>Backup             | X |
| 1RF02PA<br>Cub G3                                 | Primary<br>Backup             |   |
| 1EW12EA, B, C<br>Cub F3 A & B                     | Primary<br>Backup             | X |



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TABLE 3.8-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR  
OVERCURRENT PROTECTIVE DEVICES

PROTECTIVE DEVICE  
NUMBER AND LOCATION

DEVICE

4. 480V Molded Case Ckt. Bkts. (MCCB) (Continued)

MCC 134X5

~~1EW12EB  
Cub F3~~ Primary ~~e~~  
Backup ~~e~~

~~1EW12EC  
Cub F3~~ Primary ~~e~~  
Backup ~~e~~

1VP04CB  
Cub F4 Primary  
Backup

1VP04CD  
Cub F5 Primary  
Backup

1SI8808C  
Cub A2 Primary  
Backup

MCC 132X2A

MCC 132X2  
Cub B2

1SI8808B  
Cub A3 Primary  
Backup

1RH8702B  
Cub B1 Primary  
Backup

1RH8701B  
Cub B3 Primary  
Backup

MCC 132X2

1CV8112  
Cub B4 Primary  
Backup

1OG079  
Cub C1 Primary  
Backup

1W0056A  
Cub C2 Primary  
Backup

1OG080  
Cub C3 Primary  
Backup

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TABLE 3.8-1 (Continued)

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CONTAINMENT PENETRATION CONDUCTOR  
OVERCURRENT PROTECTIVE DEVICES

PROTECTIVE DEVICE  
NUMBER AND LOCATION

DEVICE

4. 480V Molded Case Ckt. Bkts. (MCCB) (Continued)

MCC 132X2

1RY8000B  
Cub C4  
Primary  
Backup

<sup>c</sup>  
~~1RY8003C~~  
Cub ~~E5~~ D5  
Primary  
Backup

~~1RP06E~~  
~~Cub E1~~ <sup>a</sup>  
~~Primary~~ <sup>e</sup>

1RC8003B  
Cub D4  
Primary  
Backup

~~1RL43J~~  
~~Cub E2~~  
~~Primary~~ <sup>a</sup>  
~~Backup~~ <sup>e</sup>

1RC8002A  
Cub G1  
Primary  
Backup

1RC8002B  
Cub G2  
Primary  
Backup

1RC8002C  
Cub G3  
Primary  
Backup

1RC8002D  
Cub G4  
Primary  
Backup

MCC 131X2A

1SI8808D  
Cub A2  
Primary  
Backup

1SI8808A  
Cub A3  
Primary

~~Cub B2~~ <sup>a</sup>  
~~(MCC 131 x 2)~~ <sup>a</sup>  
Backup

MCC 131X2

1RC8001A  
Cub G1  
Primary  
Backup

MCC 131X2  
Cub B2

**FINAL DRAFT**

TABLE 3.8-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR  
OVERCURRENT PROTECTIVE DEVICES

| <u>PROTECTIVE DEVICE<br/>NUMBER AND LOCATION</u>  | <u>DEVICE</u>                    |
|---|----------------------------------|
| 4. 480V Molded Case Ckt. Bkts. (MCCB) (Continued) |                                  |
|   | 131X2<br><del>MCC 132x2A e</del> |
| 1RC8001B<br>Cub G2                                | Primary<br>Backup                |
| 1RC8001C<br>Cub G3                                | Primary<br>Backup                |
| 1RC8001D<br>Cub G4                                | Primary<br>Backup                |
| 1RH8701A<br>Cub B1                                | Primary<br>Backup                |
| 1RH8702A<br>Cub B4                                | Primary<br>Backup                |
| 1LL42J<br>Cub C1                                  | Primary<br>Backup                |
| 1VQ001A<br>Cub C3                                 | Primary<br>Backup                |
| 1VQ002A<br>Cub F1                                 | Primary<br>Backup                |
| 1RC8003D<br>Cub C4                                | Primary<br>Backup                |
| 1RC8003A<br>Cub C5                                | Primary<br>Backup                |
| 1OG057A<br>Cub D1                                 | Primary<br>Backup                |
| 1CC9416<br>Cub D3                                 | Primary<br>Backup                |
| 1CC9438<br>Cub D4                                 | Primary<br>Backup                |
| 1OG081<br>Cub E2                                  | Primary<br>Backup                |

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**FINAL DRAFT**

TABLE 3.8-1 (Continued)

CONTAINMENT PENETRATION CONDUCTOR

OVERCURRENT PROTECTIVE DEVICES

| <u>PROTECTIVE DEVICE<br/>NUMBER AND LOCATION</u>  | <u>DEVICE</u>                                      |
|---|--|
| 4. 480V Molded Case Ckt. Bkts. (MCCB) (Continued) |  |
| G<br>1HC01 <del>8</del> - Cub B2<br>Cub B1        | <u>MCC 133X6</u><br>Primary<br>Backup              |
| 2<br>1LL04E - Cub C <del>2</del><br>Cub C1        | Primary<br>Backup                                  |
| 1VP03CA<br>Cub A3                                 | Primary<br>Backup                                  |
| 1VP03CD<br>Cub C4                                 | Primary<br>Backup                                  |
| <del>1CC9414<br/>Cub B4</del>                     | <del><u>MCC 132X5</u><br/>Primary<br/>Backup</del> |
| 1LL05E - Cub B2<br>Cub B1, <del>B2</del>          | <u>MCC 134X7</u><br>Primary<br>Backup              |
| 1VP03CB<br>Cub A3                                 | Primary<br>Backup                                  |
| 1VP03CC<br>Cub B4                                 | Primary<br>Backup                                  |
| 1W0056B <del>4</del><br>Cub A <del>2</del>        | <u>MCC 131X2B</u><br>Primary<br>Backup             |
| 1RY8000A<br>Cub A5                                | Primary<br>Backup                                  |

ATTACHMENT 39

Byron Station proposes to change Surveillance Requirement 4.8.1.1.2.f 7) (page 3/4 8-5) as indicated on the attached copy.

Justification

The maximum loading on the diesel generator has been limited to 6050 kW per vendor recommendations. The 6050kW (+0,-150kW) establishes a bandwidth in order to compensate for grid fluctuations.



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# FINAL DRAFT

## ELECTRICAL POWER SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

- 5) Verifying that on an ESF Actuation test signal without loss of ESF bus voltages, the diesel generator starts on the auto-start signal and operates on standby for greater than or equal to 5 minutes. The generator voltage and frequency shall be  $4160 \pm 420$  volts and  $60 \pm 1.2$  Hz within 10 seconds after the auto-start signal; the generator steady state generator voltage and frequency shall be maintained within these limits during this test;
- 6) Simulating a loss of ESF bus voltage in conjunction with an ESF Actuation test signal, and
- a) Verifying deenergization of the ESF busses and load shedding from the ESF busses;
  - b) Verifying the diesel starts on the auto-start signal, energizes the ESF busses with permanently connected loads within 10 seconds, energizes the auto-connected emergency (accident) loads through the LOCA sequencer and operates for greater than or equal to 5 minutes while its generator is loaded with emergency loads. After energization, the steady-state voltage and frequency of the ESF busses shall be maintained at  $4160 \pm 420$  volts and  $60 \pm 1.2$  Hz during this test; and
  - c) Verifying that all automatic diesel generator trips, except engine overspeed and generator differential, are automatically bypassed upon loss-of-voltage on the emergency bus concurrent with a Safety Injection Actuation signal.
- 7) Verifying the diesel generator operates for at least 24 hours. During the first 2 hours of this test, the diesel generator shall be loaded to ~~greater than or equal to 6050 kW~~ <sup>(+0, -150kW)</sup> and during the remaining 22 hours of this test, the diesel generator shall be loaded to greater than or equal to 5500 kW. The generator voltage and frequency shall be  $4160 \pm 420$  volts and  $60 \pm 1.2$  Hz within 10 seconds after the start signal; the steady-state generator voltage and frequency shall be maintained within these limits during this test. Within 5 minutes after completing this 24-hour test, perform Specification 4.8.1.1.2f.6b);\*
- 8) Verifying that the auto-connected loads to each diesel generator do not exceed the 2000-hour rating of 5935 kW;

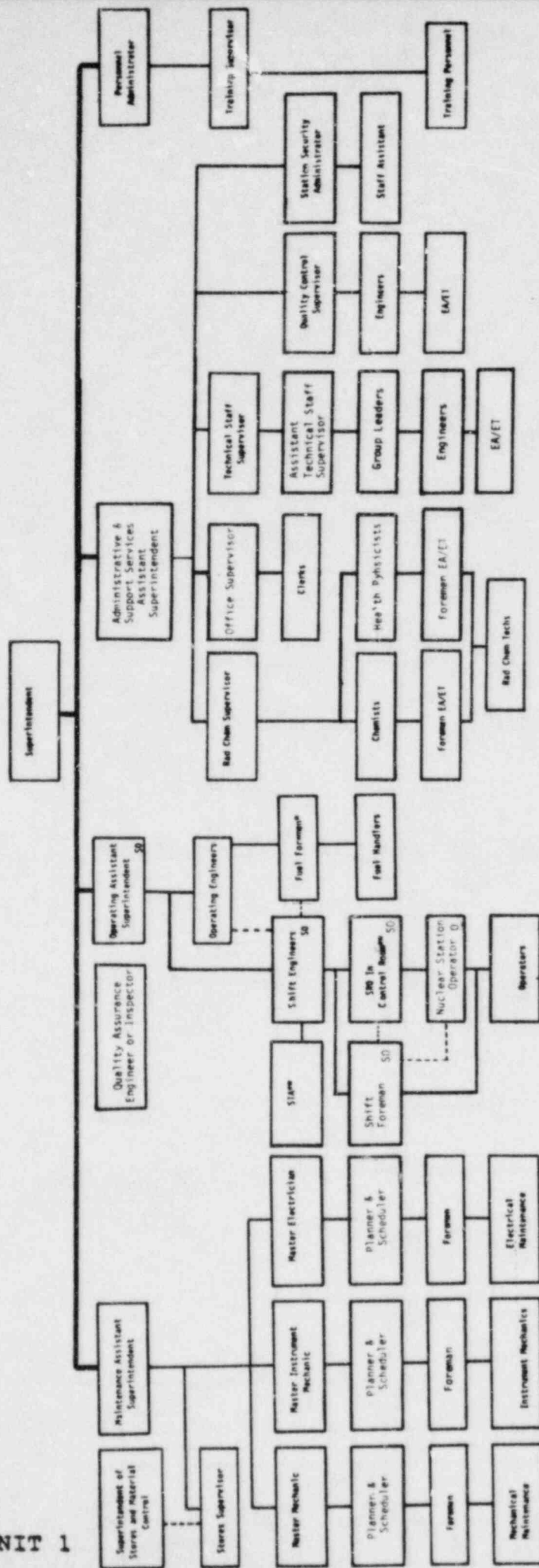
\*If Specification 4.8.1.1.2f.6b) is not satisfactorily completed, it is not necessary to repeat the preceding 24-hour test. Instead, the diesel generator may be operated at 5500 kW for 1 hour or until operating temperature has stabilized.

## ATTACHMENT 41

Byron Station proposes to modify Technical Specification Figure 6.2-2, UNIT ORGANIZATION (pg 6-4), as attached.

### Justification

This revision to Figure 6.2-2 is to resolve a Byron Station senior resident NRC inspector open item 454/84-42-01; 455/84-29-01. This figure is representative of the unit organization.



0 - Reactor Operator's License  
 SO - Senior Reactor Operator's License  
 \* - The Fuel Handling Foreman shall have a limited or a full Senior Operator's License  
 \*\* - May be filled by a SCRE

-----Administrative  
 -----Functional

Figure 6.2-2  
 UNIT ORGANIZATION

## ATTACHMENT 42

Byron Station proposes to modify Table 3.12-1(pg 3/4 12-4), T.S. 3/4.12.3 (pg 3/4 12-14), T.S. 6.5.2 b1) (pg 6-12), T.S. 6.9.1.6 (pg 6-19), T.S. 6.9.1.7 (pg 6-21) and T.S. 6.14.2a (pg 6-25) as shown on the attached pages.

### Justification

These changes are requested based on recent review by Byron Station as part of the Technical Specification certification process.

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TABLE 3.12-1 (Continued)

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

| EXPOSURE PATHWAY<br>AND/OR SAMPLE                  | NUMBER OF<br>REPRESENTATIVE<br>SAMPLES AND<br>SAMPLE LOCATIONS <sup>(1)</sup>   | SAMPLING AND<br>COLLECTION FREQUENCY  | TYPE AND FREQUENCY<br>OF ANALYSIS  |
|--|---|---|--|
| 2. Airborne<br><br>Radioiodine and<br>Particulates | <p>Samples from five locations:</p> <p>Three samples from close to the three SITE BOUNDARY locations, in different sectors, of the highest calculated annual average ground level D/Q;</p> <p>One sample from the vicinity of a community having the highest calculated annual average ground-level D/Q; and</p> <p>One sample from a control location, as for example 10 to 30 km distant and in the least prevalent wind direction.</p> | <p>Continuous sampler operation with sample collection weekly, or more frequently if required by dust loading.</p>      | <p>Radioiodine Cannister:<br/>I-131 analysis weekly, MAY THROUGH OCTOBER, bi-weekly NOVEMBER THROUGH APRIL.</p> <p>Particulate Sampler:<br/>Gross beta radioactivity analysis following filter change;<sup>(3)</sup> and gamma isotopic analysis<sup>(4)</sup> of composite (by location) quarterly.</p> |
| 3. Waterborne<br>a. Surface <sup>(5)</sup>         | <p>One sample upstream.<br/>One sample downstream.</p>  | <p>Composite sample over 1-month period. <del>by</del> by WEEKLY GRAB SAMPLES.</p>                                      | <p>Gamma isotopic analysis<sup>(4)</sup> monthly. Composite for tritium analysis quarterly.</p>  |
| b. Ground  | <p>Samples from one or two sources<sup>(5)</sup> only if likely to be affected</p>  | <p>Quarterly.</p>   | <p>Gamma isotopic<sup>(4)</sup> and tritium analysis quarterly.</p>  |
| c. Drinking  | <p>One sample of each community drinking water supply downstream of the plant within 10 kilometers.</p>   | <p>Composite sample over 2-week period<sup>(6)</sup> when I-131 analysis is performed, monthly composite otherwise.</p> | <p>I-131 analysis on each composite when the dose calculated for the consumption of the water is greater than 1 mrem per year.<sup>(8)</sup> Composite for gross beta and gamma isotopic analyses<sup>(4)</sup> monthly. Composite for tritium analysis quarterly.</p>                                   |
|  | <p>One sample from a control location.</p>  |   |  |

BYRON - UNIT 1

3/4 12-4

10/1/84  
ADD 2-1-84

x

x



~~10/1/84~~  
10/1/84

RADIOLOGICAL ENVIRONMENTAL MONITORING

3/4.12.3 INTERLABORATORY COMPARISON PROGRAM

**FINAL DRAFT**

LIMITING CONDITION FOR OPERATION

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3.12.3 Analyses shall be performed on radioactive materials, supplied as part of an Interlaboratory Comparison Program that has been approved by the Commission, that correspond to samples required by Table 3.12-1.

APPLICABILITY: At all times.

ACTION:

- a. With analyses not being performed as required above, report the corrective actions taken to prevent a recurrence to the Commission in the Annual Radiological Environmental Operating Report pursuant to Specification 6.9.1.6.
- b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

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4.12.3 The Interlaboratory Comparison Program shall be described in the ODCM. A summary of the results obtained as part of the above required Interlaboratory Comparison Program shall be included in the Annual Radiological Environmental Operating Report pursuant to Specification 6.9.1.6.

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ADMINISTRATIVE CONTROLS

6.13 PROCESS CONTROL PROGRAM (PCP)

6.13.1 The PCP shall be approved by the Commission prior to implementation.

6.13.2 Licensee-initiated changes to the PCP:

- a. Shall be submitted to the Commission in the Semiannual Radioactive Effluent Release Report for the period in which the change(s) was made. This submittal shall contain:
  - 1) Sufficiently detailed information to totally support the rationale for the change without benefit of additional or supplemental information;
  - 2) A determination that the change did not reduce the overall conformance of the solidified waste product to existing criteria for solid wastes; and
  - 3) Documentation of the fact that the change has been reviewed and found acceptable by the Onsite Review and Investigative Function.
- b. Shall become effective upon review and acceptance by the Onsite Review and Investigative Function in accordance with Specification 6.5.2.

6.14 OFFSITE DOSE CALCULATION MANUAL (ODCM)

6.14.1 The ODCM shall be approved by the Commission prior to implementation.

6.14.2 Licensee-initiated changes to the ODCM:

- a. Shall be submitted to the Commission <sup>within 180 days of the effective date of the change(s).</sup> ~~in the Semiannual Radioactive Effluent Release Report for the period in which change(s) was made effective.~~ This submittal shall contain:
  - 1) Sufficiently detailed information to totally support the rationale for the change without benefit of additional or supplemental information. Information submitted should consist of a package of those pages of the ODCM to be changed with each page numbered, dated and containing the revision number, together with appropriate analyses or evaluations justifying the change(s);
  - 2) A determination that the change will not reduce the accuracy or reliability of dose calculations or Setpoint determinations; and
  - 3) Documentation of the fact that the change has been reviewed and found acceptable by the Onsite Review and Investigative Function.
- b. Shall become effective upon review and acceptance by the Onsite Review and Investigative Function in accordance with Specification 6.5.2.

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ADMINISTRATIVE CONTROLS

OFFSITE (Continued)

h) Instrumentation and Control

Engineering graduate or equivalent with at least 5 years of experience in instrumentation and control design and/or operation.

i) Metallurgy

Engineering graduate or equivalent with at least 5 years of experience in the metallurgical field.

- 3) The Supervisor of the Offsite Review and Investigative Function shall have experience and training which satisfy ANSI N18.1-1971 requirements for plant managers.

ONSITE

6.5.2 The Onsite Review and Investigative Function shall be supervised by the Station Superintendent.

a. Onsite Review and Investigative Function

The Station Superintendent shall: (1) provide directions for the Review and Investigative Function and appoint the Technical Staff Supervisor, or other comparably qualified individual as the senior participant to provide appropriate directions; (2) approve participants for this function; (3) assure that at least two participants who collectively possess background and qualifications in the subject matter under review are selected to provide comprehensive interdisciplinary review coverage under this function; (4) independently review and approve the findings and recommendations developed by personnel performing the Review and Investigative Function; (5) report all findings of noncompliance with NRC requirements, and provide recommendations to the Division Vice President and General Manager - Nuclear Stations and the Supervisor of the Offsite Review and Investigative Function; and (6) submit to the Offsite Review and Investigative Function for concurrence in a timely manner, those items described in Specification 6.5.1a which have been approved by the Onsite Review and Investigative Function.

b. Responsibility

The responsibilities of the personnel performing this function are:

**STATION SPECIFIC PORTIONS OF**

- 1) Review of: (1) procedures required by Specification 6.8.1 and changes thereto, (2) all programs required by Specification 6.8.4 and changes thereto, and (3) any other proposed procedures or changes thereto as determined by the ~~Plant~~ <sup>Station</sup> Superintendent to affect nuclear safety; x
- 2) Review of all proposed tests and experiments that affect nuclear safety; x

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**FINAL DRAFT**

ADMINISTRATIVE CONTROLS

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REPORTING REQUIREMENTS (Continued)

ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT\*

6.9.1.6 Routine Annual Radiological Environmental Operating Reports covering the operation of the Unit during the previous calendar year shall be submitted prior to May 1 of each year. The initial report shall be submitted prior to May 1 of the year following initial criticality.

The Annual Radiological Environmental Operating Reports shall include summaries, interpretations, and an analysis of trends of the results of the radiological environmental surveillance activities for the report period, including a comparison with preoperational studies, with operational controls as appropriate, and with previous environmental surveillance reports, and an assessment of the observed impacts of the plant operation on the environment.

~~The reports shall also include the results of the Land Use Census required by Specification 3.12.2.~~ *It shall also include a listing of new locations for dose calculation and/or environmental monitoring identified by the land use census pursuant to Specification 3.12.2*

The Annual Radiological Environmental Operating Reports shall include the results of analysis of all radiological environmental samples and of all environmental radiation measurements taken during the period pursuant to the locations specified in the tables and figures in the ODCM, as well as summarized and tabulated results of these analyses and measurements in the format of the table in the Radiological Assessment Branch Technical Position, Revision 1, November 1979. In the event that some individual results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted as soon as possible in a supplementary report.

The reports shall also include the following: a summary description of the Radiological Environmental Monitoring Program; at least two legible maps\*\* covering all sampling locations keyed to a table giving distances and directions from the centerline of one reactor; the results of licensee participation in the Interlaboratory Comparison Program and the corrective actions being taken if the specified program is not being performed as required by Specification 3.12.3; reasons for not conducting the Radiological Environmental Monitoring Program as required by Specification 3.12.1, and discussion of all deviations from the sampling schedule of Table 3.12-1; discussion of environmental sample measurements that exceed the reporting levels of Table 3.12-2 but are not the result of plant effluents, pursuant to Specification 3.12.1; and discussion of all analyses in which the LLD required by Table 4.12-1 was not achievable.

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\*A single submittal may be made for a multiple unit station.

\*\*One map shall cover stations near the SITE BOUNDARY; a second shall include the more distant stations.



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**FINAL DRAFT**

ADMINISTRATIVE CONTROLS

REPORTING REQUIREMENTS (Continued)

"Measuring, Evaluating, and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents from Light-Water-Cooled Nuclear Power Plants," Revision 1, June 1974, with data summarized on a quarterly basis following the format of Appendix B thereof. For solid wastes, the format for Table 3 in Appendix B shall be supplemented with three additional categories: class of solid wastes (as defined by 10 CFR Part 61), type of container (e.g., LSA, Type A, Type B, Large Quantity), and SOLIDIFICATION agent or absorbent (e.g., cement, urea formaldehyde).

The Semiannual Radioactive Effluent Release Reports shall include a list and description of unplanned releases from the site to UNRESTRICTED AREAS of radioactive materials in gaseous and liquid effluents made during the reporting period.

The Semiannual Radioactive Effluent Release Reports shall include any changes made during the reporting period to the PCP ~~and to the ODCM~~, pursuant to Specifications 6.13 and 6.14 respectively, as well as any major changes to Liquid, Gaseous or Solid Radwaste Treatment Systems, pursuant to Specification 6.15. ~~It shall also include a listing of new locations for dose calculations and/or environmental monitoring identified by the land use census pursuant to Specification 3.12.2.~~

\*  
Sentence moved to pg 6-19

The Semiannual Radioactive Effluent Release Reports shall also include the following: an explanation as to why the inoperability of liquid or gaseous effluent monitoring instrumentation was not corrected within the time specified in Specifications 3.3.3.10 or 3.3.3.11, respectively; and description of the events leading to liquid holdup tanks or gas storage tanks exceeding the limits of Specification 3.11.1.4 or 3.11.2.6, respectively.

MONTHLY OPERATING REPORT

6.9.1.8 Routine reports of operating statistics and shutdown experience, including documentation of all challenges to the PORVs or RCS safety valves, shall be submitted on a monthly basis to the Director, Office of Resource Management, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, with a copy to the Regional Administrator of the NRC Regional Office, no later than the 15th of each month following the calendar month covered by the report.

RADIAL PEAKING FACTOR LIMIT REPORT

6.9.1.9 Changes to the  $F_{xy}$  limits for Rated Thermal Power ( $F_{xy}^{RTP}$ ) shall be provided to the NRC Regional Administrator with a copy to Director of Nuclear Reactor Regulation, Attention: Chief, Core Performance Branch, U. S. Nuclear Regulatory Commission, Washington, D. C. 20555 for all core planes containing Bank "D" control rods and all unrodded core planes and the plot of predicted ( $F_q^T \cdot P_{Rel}$ ) vs Axial Core Height with the limit envelope at least 60 days prior to cycle initial criticality unless otherwise approved by the Commission by letter. In addition, in the event that the limit should change requiring a new