The Light company Houston Lighting & Power P.O. Box 1700 Houston, Texas 77001 (713) 228-9211

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U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

South Texas Project
Unit 1
Docket No. STN 50-498
Draft Revision 2 Technical Specifications (Tech Specs)

Attached are justifications or specific data for some of the proposed Tech Specs for South Texas Project Electric Generating Station. Included with the justifications are markups of the affected sections of the Tech Specs for which we are requesting a change.

We believe that these justifications adequately address the bases for the proposed changes.

If you should have any questions on this matter, please contact Ms. F. A. White at (512) 972-7985.

M. R. Wisenburg
Deputy Project Manager

FAW/ljm

Attachments:
1) Changes to Tech Spec Tables 3.3-3, 4.3-2, 3.3-6 and 4.3-3
2) Changes to Tech Spec 4.3.2.2
3) Changes to Definition 1.10
4) Changes to Tech Spec 4.8.1.1.2.e(3)
5) Changes to Tech Spec 3.4.6.1
6) Changes to Tech Specs 4.4.1.2.2, 4.4.1.3.2 and 3.4.1.4.1b
7) Changes to Tech Spec 3.11.2.6
8) Changes to Tech Spec Tables 3.3-13 and 4.3-9
9) Changes to Tech Spec 4.3.3.10 and Tables 3.3-12 and 4.3-8
10) Changes to Tech Spec 3.11.1.4

L3/NRC/bu

cc:

Regional Administrator, Region IV
Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 1000
Arlington, TX 76011

N. Prasad Kadambi, Project Manager
U.S. Nuclear Regulatory Commission
7920 Norfolk Avenue
Bethesda, MD 20814

Robert L. Perch, Project Manager
U.S. Nuclear Regulatory Commission
7920 Norfolk Avenue
Bethesda, MD 20814

Dan R. Carpenter
Senior Resident Inspector/Operations
c/o U.S. Nuclear Regulatory
Commission
P.O. Box 910
Bay City, TX 77414

Claude E. Johnson
Senior Resident Inspector/STP
c/o U.S. Nuclear Regulatory
Commission
P.O. Box 910
Bay City, TX 77414

M.D. Schwarz, Jr., Esquire
Baker & Botts
One Shell Plaza
Houston, TX 77002

J.R. Newman, Esquire
Newman & Holtzinger, P.C.
1615 L Street, N.W.
Washington, DC 20036

T.V. Shockley/R. L. Range
Central Power & Light Company
P. O. Box 2121
Corpus Christi, TX 78403

M.B. Lee/J. E. Malaski
City of Austin
P.O. Box 1088
Austin, TX 78767

A. vonRosenberg
City Public Service Board
P.O. Box 1771
San Antonio, TX 78296

Brian E. Berwick, Esquire
Assistant Attorney General for
the State of Texas
P.O. Box 12548, Capitol Station
Austin, TX 78711

Lanny A. Sinkin
Christic Institute
1324 North Capitol Street
Washington, D.C. 20002

Oreste R. Pirfo, Esquire
Hearing Attorney
Office of the Executive Legal Director
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Citizens for Equitable Utilities, Inc.
c/o Ms. Peggy Buchorn
Route 1, Box 1684
Brazoria, TX 77422

Advisory Committee on Reactor Safeguards
U.S. Nuclear Regulatory Commission
1717 H Street
Washington, DC 20555

George Smith
Westinghouse Electric Corporation
Monroeville Nuclear Center
P. O. Box 355
Pittsburgh, PA 15230

Changes to Tables 3.3-3, 4.3-2, 3.3-6 and 4.3-3
on
ESFAS Radiation Monitoring

The ESFAS radiation monitors will be addressed in the ESFAS Tech Spec (3/4.3.2) rather than the Radiation Monitoring Tech Spec (3/4.3.3). A setpoint methodology similar to the Westinghouse methodology has been used on the ESFAS radiation monitoring channels, resulting in the provision of TA, Z, S, Trip Setpoint and Allowable Value numbers. The Radiation Monitoring Tech Spec is not set up to address this methodology, resulting actions and provision of numbers. The non-applicability of Specifications 3.0.3 and 3.0.4 was transferred from Specification 3/4.3.3, as Notation (+).

Table 3.3-3

Credit for operation of the RCB Purge monitors (Table 3.3-3 Item 3.b.5) is taken only for the Fuel Handling Accident inside the Containment. The RCB Purge monitors provide indication for the exhaust through the 48 inch purge lines, which must be closed in Modes 1 through 4. Fuel handling at STP may occur in Mode 6 and also in Mode 5, using the in-Containment fuel storage pool. Thus, the applicable Modes are 5 and 6, during core alterations or fuel movement within the containment. The action required was taken directly from Specification 3.9.9.

Note: Operability of the manual actuation and actuation logic and relays is ensured by Surveillance Specification 4.9.9.

Action 27 for Items 10.a and 10.c was developed during an action time consistent with other manual initiations in this table (48 hrs) and the appropriate actions from Specifications 3.7.7.

Action 28 for Item 10.d was developed based upon sensor inoperable action times in this table (1 hr), with consideration of protection needed for the various modes. In Modes 1-4, the system function is to protect the operators against radioactive or chemical release. Any accident which generates an SI signal will send the system into the emergency mode of operation. Other accidents releasing radioactivity or chemicals can be mitigated for the operators by isolating control room makeup. In Modes 5 and 6, the action taken is in accordance with Specification 3.7.7.

Action 29 for Items 11.a and 11.b was developed for Modes 1-4 using an action time (48 hrs) consistent with other manual initiations in this table and knowing that the ECCS pump leakage is a contribution of LOCA doses over the entire assumed 30-day duration. The safety function may be ensured by either filtering the exhaust air from the ECCS pump cubicles or placing the plant in a mode in which operability is not required. With irradiated fuel in the

spent fuel pool, the safety function is filtration of the spent fuel pool exhaust following a fuel handling accident. In this case, releases from the fuel handling accident are complete in a short time frame. Thus, the action needed is immediate, to either stop fuel movement and/or crane operation over the spent fuel pool or put the exhaust air system into the filtration mode of operation.

Action 30 for Item 11.d was developed using the same rationale as Action 29 for irradiated fuel in the spent fuel pool.

Table 4.3-2

The RCB Purge Monitors (Table 4.3-2, item 3.c.4) Surveillance Requirements are specified for Modes 5 and 6 with CORE ALTERATION or movement of irradiated fuel within Containment. This is consistent with the discussion provided in Table 3.3-3 above.

The Control Room and FHB Radioactivity-High Monitors (Table 4.3-2, items 10.d and 11.d, respectively) are specified for all MODES and with irradiated fuel in the spent fuel pool, respectively. Again, this is consistent with the discussion provided in Table 3.3-3 above.

Tables 3.3-6 and 4.3-3

Deletions proposed in these Tables are consistent with the proposed additions to Tables 3.3-3 and 4.3-2 described previously.

Please note that a separate letter requesting exemption of the Criticality Monitors for the Fuel Handling Building under 10CFR Part 50, as was granted under an exemption to 10CFR Part 70.24 in the South Texas SNM License No. SNM-1972 dated December 29, 1986, will be provided, accordingly.

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
3. Containment Isolation (Continued)					
b. Containment Ventilation Isolation					
1) Manual Initiation	2	1	2	1, 2, 3, 4	18
2) Automatic Actuation Logic	2	1	2	1, 2, 3, 4	18
3) Actuation Relays	3	2	3	1, 2, 3, 4	18
4) Safety Injection	See Item 1. above for all Safety Injection initiating functions and requirements.				
5) RCB Purge Radioactivity-High	2	1	2	~~1, 2, 3, 4~~ 5##, 6##	18
4. Steam Line Isolation					
a. Manual Initiation					
1) Individual	2/steam line	1/steam line	2/operating steam line	1, 2, 3	24
2) System	2	1	2	1, 2, 3	23
b. Automatic Actuation Logic and Actuation Relays	2	1	2	1, 2, 3	22

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
9. Engineered Safety Features Actuation System Interlocks (Continued)					
c. Reactor Trip, P-4	4-2/train	2	2	1, 2, 3	23
d. Power Range Neutron Flux Input to Excessive Cooldown Protection, P-15	4	2	3	1, 2, 3	19
10. Control Room Ventilation					
a. Manual Initiation	3(1/train)	2(1/train)	3(1/train)	All	27
b. Safety Injection	See Item 1. above for all Safety Injection initiating functions and requirements.				
c. Automatic Actuation Logic and Actuation Relays	3	2	3	All	27
d. Control Room Intake Air Radioactivity - High	2	1	2	All	28+
11. FHB HVAC					
a. Manual Initiation	3(1/train)	2(1/train)	3(1/train)	1, 2, 3, 4 or with irradiated fuel in spent fuel pool	29

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
11. FHB HVAC (Continued)					
b. Automatic Actuation Logic and Actuation Relays	3	2	3	1, 2, 3, 4 or with irradiated fuel in spent fuel pool	29
c. Safety Injection	See Item 1. above for all Safety Injection initiating functions and requirements.				
d. Spent Fuel Pool Exhaust Radioactivity - High	2	1	2	With irradiated fuel in spent fuel pool	30+

TABLE 3.3-3 (Continued)

TABLE NOTATIONS

*The provisions of Specification 3.0.4 are not applicable.

**Feedwater Isolation only.

***Function is actuated by either actuation train A or actuation train B. Actuation train C is not used for this function.

****Automatic switchover to containment sump is accomplished for each train using the corresponding RWST level transmitter.

#Trip function may be blocked in this MODE below the P-11 (Pressurizer Pressure Interlock) Setpoint.

During Core Alterations or movement of irradiated fuel within the Containment.

###Trip function automatically blocked above P-11 and may be blocked below P-11 when Safety Injection on low steam line pressure is not blocked.

####Trip function is blocked in MODE 1 above the P-15 (Excessive Cooldown Protection) setpoint.

+ The provisions of Specifications 3.03 and 3.04 are not applicable.

ACTION STATEMENTS

ACTION 14 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours; however, one channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.2.1, provided the other channel is OPERABLE.

ACTION 15 - With the number of OPERABLE channels one less than the Total Number of Channels, operation may proceed until performance of the next required ANALOG CHANNEL OPERATIONAL TEST provided the inoperable channel is placed in the tripped condition within 1 hour.

ACTION 16 - (Not Used)

ACTION 17 - With the number of OPERABLE channels one less than the Total Number of Channels, operation may proceed provided the inoperable channel is placed in the bypassed condition and the Minimum Channels OPERABLE requirement is met. One additional channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.2.1.

ACTION 18 - With less than the Minimum Channels OPERABLE requirement, operation may continue provided the containment purge supply and exhaust valves are maintained closed.

ACTION 19 - With the number of OPERABLE channels one less than the Minimum Channels' OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

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TABLE 3.3-3 (Continued)

ACTION STATEMENTS (Continued)

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ACTION 20 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:

a. The inoperable channel is placed in the tripped condition within 1 hour, and

b. The Minimum Channels OPERABLE requirement is met; however, one additional channel may be bypassed for up to 2 hours for surveillance testing of other channels per Specification 4.3.2.1.

ACTION 21 - With less than the Minimum Number of Channels OPERABLE, within 1 hour determine by observation of the associated permissive annunciator window(s) that the interlock is in its required state for the existing plant condition, or apply Specification 3.0.3.

ACTION 22 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, be in at least HOT STANDBY within 6 hours and in at least HOT SHUTDOWN within the following 6 hours; however, one channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.2.1 provided the other channel is OPERABLE.

ACTION 23 - With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within 6 hours and in at least HOT SHUTDOWN within the following 6 hours.

ACTION 24 - With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or declare the associated valve inoperable and take the ACTION required by Specification 3.7.1.5.

ACTION 25 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, be in at least HOT STANDBY within 6 hours; however, one channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.2.1 provided the other channel is OPERABLE.

ACTION 26 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, declare the affected Auxiliary Feedwater Pump inoperable and take ACTION required by Specification 3.7.1.2.

ACTION 27: MODES 1,2,3,4: With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

MODES 5 and 6: With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirement, restore the inoperable Channel to OPERABLE status within 48 hours or initiate and maintain operation of the Control Room Envelope Ventilation System (at 100% capacity) in the recirculation and makeup filtration mode.

ACTION 28: MODES 1,2,3,4: With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirement, within 1 hour isolate the Control Room Envelope and maintain operation of the ventilation system in the filtered recirculation mode.

MODES 5 and 6: With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirement, within 1 hour initiate and maintain operation of the Control Room Envelope Ventilation System (at 100% capacity) in the recirculation and makeup filtration mode.

ACTION 29: MODES 1,2,3,4: With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or either initiate and maintain operation of the FHB exhaust air filtration system (at 100% capacity) or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

With irradiated fuel in the spent fuel pool: With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirement, fuel movement within the spent fuel pool or crane operation with loads over the spent fuel pool may proceed provided the FHB exhaust air filtration system is in operation and discharging through at least one train of HEPA filters and charcoal adsorbers.

ACTION 30: With irradiated fuel in the spent fuel pool: With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirement, fuel movement within the spent fuel pool or crane operation with loads over the spent fuel pool may proceed provided the FHB exhaust air filtration system is in operation and discharging through at least one train of HEPA filters and charcoal adsorbers.

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

CHANNEL FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	DIGITAL OR ANALOG CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MASTER RELAY TEST	SLAVE RELAY TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
3. Containment Ventilation Isolation (Continued)								
2) Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	Q	1, 2, 3, 4
3) Safety Injection	See Item 1. above for all Safety Injection Surveillance Requirements.							
4) RCB Purge Radioactivity-High	S	R	M	N.A.	N.A.	N.A.	N.A.	5(3), 6(3)
4. Steam Line Isolation								
a. Manual Initiation	N.A.	N.A.	N.A.	R	N.A.	N.A.	N.A.	1, 2, 3
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A	N.A	N.A.	M(1)	M(1)	Q	1, 2, 3
c. Steam Line Pressure-Negative Rate-High	S	R	M	N.A.	N.A.	N.A.	N.A.	3
d. Safety Injection	See Item 1. above for all Safety Injection Surveillance Requirements.							

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

CHANNEL FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	DIGITAL OR ANALOG CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MASTER RELAY TEST	SLAVE RELAY TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
10. Control Room Ventilation (Continued)								
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	N.A.	N.A.	All
c. Safety Injection	See Item 1. above for all Safety Injection Surveillance Requirements.							
d. Control Room Intake Air Radioactivity-High	S	R	M	N.A.	N.A.	N.A.	N.A.	ALL
11. FHB HVAC								
a. Manual Initiation	N.A.	N.A.	N.A.	R	N.A.	N.A.	N.A.	1, 2, 3, 4, or with irradiated fuel in the spent fuel pool
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	N.A.	N.A.	1, 2, 3, 4, or with irradiated fuel in the spent fuel pool

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

CHANNEL FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	DIGITAL ANALOG CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MASTER RELAY TEST	SLAVE RELAY TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
11. FHB HVAC (Continued)								
c. Safety Injection	See Item 1. above for all Safety Injection Surveillance Requirements.							
d. Spent Fuel Pool Exhaust Radio-activity-High	S	R	M	N.A.	N.A.	N.A.	N.A.	With irradiated fuel in the spent fuel pool.

TABLE NOTATION

(1) Each train shall be tested at least every 62 days on a STAGGERED TEST BASIS.

(3) During CORE ALTERATIONS or movement of irradiated fuel within the Containment.

TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION FOR PLANT OPERATIONS

FUNCTIONAL UNIT	CHANNELS TO TRIP/ALARM	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ALARM/TRIP SETPOINT	ACTION
1. Containment					
a. Containment Atmosphere Radioactivity-High	1	2	All	≤ [2] mR/h	26
a. b. RCS Leakage Detection					
1) Particulate Radioactivity	N.A.	1	1, 2, 3, 4	N.A.	29
2) Gaseous Radioactivity	N.A.	1	1, 2, 3, 4	N.A.	29
2. Purge and Exhaust Ventilation					
a. Particulate Radioactivity	1	2	All	*	26
b. Gaseous Radioactivity	1	2	All	*	26
3. Fuel Storage Pool Areas					
a. Radioactivity-High					
Gaseous Radioactivity	1	2	**	≤ [2] mR/h	27
b. Criticality-Radiation Level	1	2	***	≤ 15 mR/h	28
4. Control Room					
a. Air Intake-Radiation Level	1/intake	2/intake	All	≤ [2] mR/h	27
b. Control Room Atmosphere Radiation-High	1	2	All	≤ [2] mR/h	27

TABLE 3.3-6 (Continued)

TABLE NOTATIONS

~~* Must satisfy Specification 3.11.2.1 requirements.~~

~~** With irradiated fuel in the fuel storage pool areas.~~

~~*** With fuel in the fuel storage pool areas.~~

ACTION STATEMENTS

NOT USED

ACTION 26 - ~~With less than the Minimum Channels OPERABLE requirement, operation may continue provided the containment purge and exhaust valves are maintained closed.~~

NOT USED

ACTION 27 - ~~With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, within 1 hour isolate the Control Room Emergency Ventilation System and initiate operation of the Control Room Emergency Ventilation System in the recirculation mode.~~

NOT USED

ACTION 28 - ~~With less than the Minimum Channels OPERABLE requirement, operation may continue for up to 30 days provided an appropriate portable continuous monitor with the same Alarm Setpoint is provided in the fuel storage pool area. Restore the inoperable monitors to OPERABLE status within 30 days or suspend all operations involving fuel movement in the fuel storage pool areas.~~

ACTION 29 - Must satisfy the ACTION requirement for Specification 3.4.6.1.

TABLE 4.3-3

RADIATION MONITORING INSTRUMENTATION FOR PLANT OPERATIONS SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
1. Containment				
a. Containment Atmosphere Radioactivity-High	S	R	M	All
b. RCS Leakage Detection				
1) Particulate Radioactivity	S	R	M	1, 2, 3, 4
2) Gaseous Radioactivity	S	R	M	1, 2, 3, 4
2. Purge and Exhaust Ventilation				
a. Particulate Radioactivity	S	R	M	All
b. Gaseous Radioactivity	S	R	M	All
3. Fuel Storage Pool Areas				
a. Radioactivity-High-Gaseous Radioactivity	S	R	M	**
b. Criticality-Radiation Level	S	R	M	*
4. Control Room				
a. Air Intake Radiation Level	S	R	M	All
b. Control Room Atmosphere Radiation-High	S	R	M	All

TABLE NOTATIONS

* With fuel in the fuel storage pool area.
** With irradiated fuel in the fuel storage pool areas.

Changes on Response Time for ESFAS Equipment - Tech Spec 4.3.2.2

ESFAS response time testing on a two-train Westinghouse (W) plant is performed in accordance with the standard Tech Specs which require that "all channels are tested at least once per N times 18 months where N is the total number of redundant channels in a specific ESFAS function". Accordingly, a two-train W plant shows the response time for a three-channel function once per 54 months (3 x 18) and for a four-channel function once per 72 months (4 x 18), all the way from sensor to actuation.

At South Texas, there is no (generic) modification to the number of sensors, and there are two logic trains (R and S); same as the A and B on a W two-train system. However, South Texas has three actuation trains (A,B and C) in contrast to only two actuation trains at a standard two-train W plant.

Inasmuch as the changes in ESFAS response time are expected to be much more significant in the Process Protection System cabinets than in the Solid State Protection System (SSPS), and the SSPS is different only in the actuation trains, HL&P believes that the attached markup specification is acceptable and reasonable.

Please note that in situations where only two actuation trains are used (Containment Ventilation Isolation, Steam Line Isolation, Turbine Trip and Feedwater Isolation) at South Texas, HL&P will revert to the standard W Tech Spec Surveillance Requirements for ESFAS response time testing. We feel that this commitment is adequately stated and required by the first sentence of Surveillance Requirement 4.3.2.2.

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SURVEILLANCE REQUIREMENTS

4.3.2.1 Each ESFAS instrumentation channel and interlock and the automatic actuation logic and relays shall be demonstrated OPERABLE by performance of the ESFAS Instrumentation Surveillance Requirements specified in Table 4.3-2.

4.3.2.2 The ENGINEERED SAFETY FEATURES RESPONSE TIME of each ESFAS function shall be demonstrated to be within the limit at least once per 18 months. Each test shall include at least one train so that: ~~all trains are tested at least once per 36 months and one channel per function so that all channels are tested at least once per N times 18 months where N is the total number of redundant channels in a specific ESFAS function as shown in the "Total No. of Channels" column of Table 3.3-3.~~

a) each logic train is tested at least once per 36 months,
b) each actuation train is tested at least once per 54 months, and
c) one channel per function so that all channels are tested at least once per N times 18 months where N is the total number of redundant channels in a specific ESFAS Function as shown in the "Total No. of Channels" Column of Table 3.3-3

Change to Definition 1.10

DIGITAL CHANNEL OPERATIONAL TEST - The test is performed to ensure that alarm, interlock and/or trip functions occur when the setpoint is exceeded. It is analogous to an ANALOG CHANNEL OPERATIONAL TEST for a digital sensor. The operational test of the sensor may be performed by injecting simulated process data (for example, putting a source next to the detector, causing the counts/min and corresponding microcurie/cc to exceed the setpoint). Alternately, the data base could be manipulated to cause the setpoint to be artificially exceeded (for example, an intermediate conversion factor from counts/min to microcurie/cc could be altered, or the setpoint itself could be changed to verify actuation when the setpoint is exceeded). Note that database manipulation or simulated process data could be used to perform the DIGITAL CHANNEL OPERATIONAL TEST, and after the test has been satisfactorily completed, the system must be restored to its proper pre-set configuration.

CONTAINMENT INTEGRITY

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 ALTERATIONS

1.9 CORE ALTERATIONS shall be the movement or manipulation of any component within the reactor pressure 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

1.10 A DIGITAL CHANNEL OPERATIONAL TEST shall consist of exercising the digital computer hardware using data base manipulation ~~and~~ or injecting simulated process data to verify OPERABILITY of alarm, interlock, 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

Specific Data for Tech Spec 4.8.1.1.2.e(3)

Test Reports for the diesel generator indicated that at 110% power the generator was able to reject the load and maintain the voltage less than 4784 volts. The STS value of 4784 volts is therefore an acceptable value for STP.

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SURVEILLANCE REQUIREMENTS (Continued)

c. By sampling new fuel oil in accordance with ASTN-D4057 prior to addition to storage tanks and:

1) By verifying in accordance with the tests specified in ASTM-D975-81 prior to addition to the storage tanks that the sample has:

a) An API Gravity of within 0.3 degrees at 60°F, or a specific gravity of within 0.0016 at 60/60°F, when compared to the supplier's certificate, or an absolute specific gravity at 60/60°F of greater than or equal to 0.83 but less than or equal to 0.89, or an API gravity of greater than or equal to 27 degrees but less than or equal to 39 degrees;

b) A kinematic viscosity at 40°C of greater than or equal to 1.9 centistokes, but less than or equal to 4.1 centistokes if gravity was not determined by comparison with the supplier's certification;

c) A flash point equal to or greater than 125°F; and

d) A clear and bright appearance with proper color when tested in accordance with ASTM-D4176-82.

2) By verifying within 30 days of obtaining the sample that the other properties specified in Table 1 of ASTM-D975-81 are met when tested in accordance with ASTM-D975-81 except that the analysis for sulfur may be performed in accordance with ASTM-D1552-79 or ASTM-D2622-82.

d. At least once every 31 days by obtaining a sample of fuel oil in accordance with ASTM-D2276-78, and verifying that total particulate contamination is less than 10 mg/liter when checked in accordance with ASTM-D2276-78, Method A;

e. At least once per 18 months, during shutdown, by:

1) Subjecting the diesel to an inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for this class of standby service;

2) Verifying the generator capability to reject a load of greater than or equal to 746 kW while maintaining voltage at 4160 ± 416 volts and frequency at 60 ± 4.5 Hz;

3) Verifying the generator capability to reject a load of 5500 kW without tripping. The generator voltage shall not exceed (4784) volts during and following the load rejection;

Changes to Tech Spec 3.4.6.1

The RCPB leakage detection systems are the following:

a) Containment Atmosphere Radiation Monitor - Noble Gas Channel,
b) Containment Normal Sump Level and Flow Monitoring System and
c) Containment Atmosphere Radiation Monitor - Particulate Channel.

The attached markup provides the same action as the standard Tech Spec when any single one of these systems is inoperable. Action a addresses when either system a or system c is inoperable; action b addresses when system b is inoperable.

The Containment Atmosphere Radiation Monitor has three channels: noble gas, particulate and iodine, all on the same skid, with one sample pump, one microprocessor and the associated tubing, valves and instrumentation. If any of this common equipment (such as the sample pump) becomes inoperable, all three channels would be inoperable making both system a and system c inoperable. While this reduces the number of systems available to continuously monitor for RCPB leakage, the performance of containment atmosphere grab sample analyses and RCS water inventory balances is available to help identify leakage. Action c is thus provided to allow an appropriate repair time for common equipment on the containment atmosphere radiation monitor/skid and still provide appropriate measures to detect RCPB leakage.

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3/4.4.6 REACTOR COOLANT SYSTEM LEAKAGE

LEAKAGE DETECTION SYSTEMS

LIMITING CONDITION FOR OPERATION

3.4.6.1 The following Reactor Coolant System Leakage Detection Systems shall be OPERABLE:

a. The Containment Atmosphere Gaseous Radioactivity Monitoring System,

b. The Containment Normal Sump Level and Flow Monitoring System, and

c. The Containment Atmosphere Particulate Radioactivity Monitoring System.

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

ACTION: REPLACE WITH ATTACHED INSERT

With only two of the above required Leakage Detection Systems OPERABLE, operation may continue for up to 30 days provided grab samples of the containment atmosphere are obtained and analyzed at least once per 24 hours when the required Gaseous or Particulate Radioactive Monitoring System is inoperable; otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.4.6.1 The Leakage Detection Systems shall be demonstrated OPERABLE by:

a. Containment Atmosphere Gaseous and Particulate Monitoring Systems performance of CHANNEL CHECK, CHANNEL CALIBRATION, and DIGITAL CHANNEL OPERATIONAL TEST at the frequencies specified in Table 4.3-3, and

b. Containment Normal Sump Level and Flow Monitoring System performance of CHANNEL CALIBRATION at least once per 18 months.

REVISED ACTION

SPECIFICATION 3.4.6.1

a. With a. or c. of the above required Leakage Detection Systems inoperable, operation may continue for up to 30 days provided grab samples of the containment atmosphere are obtained and analyzed for gaseous and particulate radioactivity at least once per 24 hours when the required Gaseous or Particulate Radioactivity Monitoring System is inoperable; otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With b. of the above required Leakage Detection Systems inoperable be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

c. With a. and c. of the above required Leakage Detection Systems inoperable:

1) Restore either Monitoring System (a. or c.) to OPERABLE status within 72 hours and

2) Obtain and analyze a grab sample of the containment atmosphere for gaseous and particulate radioactivity at least once per 24 hours, and

3) Perform a Reactor Coolant System water inventory balance at least once per 8 hours.

Otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

Changes to Tech Specs 4.4.1.2.2, 4.4.1.3.2 and 3.4.1.4.1b

The above Specifications were revised to indicate that the secondary side water level will be greater than or equal to 10 percent narrow range on the steam generators.

The steam generators (SG) are required OPERABLE in Modes 3, 4 and 5 as indicated in the above Tech Specs. For these modes, the SG operability function is for heat removal through secondary side systems. HL&P considers heat removal through secondary side systems to be satisfied when the SG tubes are completely covered, which prevents steam binding in the tubes.

For the Model E SG, the top of the tubes is shown on the wide range SG water level indicators as 72% and on the narrow range SG water level indicators as 8.4%.

Therefore, the specifications have been marked up conservatively as 10% narrow range, on the basis that four narrow range channels are provided for each SG and that the narrow range indicators are provided on more accessible control room panels.

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HOT STANDBY

LIMITING CONDITION FOR OPERATION

3.4.1.2 At least two of the reactor coolant loops listed below shall be OPERABLE with two reactor coolant loops in operation when the Reactor Trip System breakers are closed and one reactor coolant loop in operation when the Reactor Trip System breakers are open:*

a. Reactor Coolant Loop A and its associated steam generator and reactor coolant pump,

b. Reactor Coolant Loop B and its associated steam generator and reactor coolant pump,

c. Reactor Coolant Loop C and its associated steam generator and reactor coolant pump, and

d. Reactor Coolant Loop D and its associated steam generator and reactor coolant pump.

APPLICABILITY: MODE 3.

ACTION:

a. With less than the above required reactor coolant loops OPERABLE, restore the required loops to OPERABLE status within 72 hours or be in HOT SHUTDOWN within the next 12 hours.

b. With only one reactor coolant loop in operation and the Reactor Trip System breakers in the closed position, within 1 hour open the Reactor Trip System breakers.

c. With no reactor coolant loop in operation, suspend all operations involving a reduction in boron concentration of the Reactor Coolant System and immediately initiate corrective action to return the required reactor coolant loop to operation.

SURVEILLANCE REQUIREMENTS

4.4.1.2.1 At least the above required reactor coolant pumps, if not in operation, shall be determined OPERABLE once per 7 days by verifying correct breaker alignments and indicated power availability.

4.4.1.2.2 The required steam generators shall be determined OPERABLE by verifying secondary side water level to be greater than or equal to ~~[17%]~~ 10% narrow range at least once per 12 hours.

4.4.1.2.3 The required reactor coolant loops shall be verified in operation and circulating reactor coolant at least once per 12 hours.

*All reactor coolant pumps may be deenergized for up to 1 hour provided: (1) no operations are permitted that would cause dilution of the Reactor Coolant System boron concentration, and (2) core outlet temperature is maintained at least 10°F below saturation temperature.

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HOT SHUTDOWN

LIMITING CONDITION FOR OPERATION

4.4.1.3.1 The required reactor coolant pump(s) and/or RHR pump(s) ***, if not in operation, shall be determined OPERABLE once per 7 days by verifying correct breaker alignments and indicated power availability.

4.4.1.3.2 The required steam generator(s) shall be determined OPERABLE by verifying secondary side water level to be greater than or equal to [17]% at least once per 12 hours. 10% narrow range

4.4.1.3.3 *** At least one reactor coolant or RHR loop shall be verified in operation and circulating reactor coolant at least once per 12 hours.

*** OPERABILITY is contingent upon CVB-198 limited to 125 gpm.

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REACTOR COOLANT SYSTEM

COLD SHUTDOWN - LOOPS FILLED

LIMITING CONDITION FOR OPERATION

3.4.1.4.1 At least one residual heat removal (RHR) loop shall be OPERABLE and in operation*, and either:

a. One additional RHR loop shall be OPERABLE**, or

b. The secondary side water level of at least two steam generators shall be greater than ~~17%~~ 10%.

APPLICABILITY: MODE 5 with reactor coolant loops filled***.

ACTION:

a. With two of the RHR loops inoperable and with less than the required steam generator water level, immediately initiate corrective action to return one of the inoperable RHR loops to OPERABLE status or restore the required steam generator water level as soon as possible.

b. With no RHR loop in operation, suspend all operations involving a reduction in boron concentration of the Reactor Coolant System and immediately initiate corrective action to return the required RHR loop to operation.

SURVEILLANCE REQUIREMENTS

4.4.1.4.1.1 The secondary side water level of at least two steam generators when required shall be determined to be within limits at least once per 12 hours.

4.4.1.4.1.2 At least one RHR loop shall be determined to be in operation and circulating reactor coolant at least once per 12 hours.

---

*The RHR pump may be deenergized for up to 1 hour provided: (1) no operations are permitted that would cause dilution of the Reactor Coolant System boron concentration, and (2) core outlet temperature is maintained at least 10°F below saturation temperature.

**Two RHR loops may be inoperable for up to 2 hours for surveillance testing provided the other RHR loop is OPERABLE and in operation.

***A reactor coolant pump shall not be started with one or more of the Reactor Coolant System cold leg temperatures less than or equal to 350°F unless the secondary water temperature of each steam generator is less than 50°F above each of the Reactor Coolant System cold leg temperatures.

Specific Data for Tech Spec 3.11.2.6

The quantity of radioactivity contained in a gas storage tank shall be limited to less than or equal to $1x10^5$ curies of noble gases (considered as Xe-133 equivalent).

This limit was determined in accordance with the Tech specs Bases 3.11.2.6 and is justified in appropriate calculations.

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RADIOACTIVE EFFLUENTS

GAS STORAGE TANKS

LIMITING CONDITION FOR OPERATION

3.11.2.6 The quantity of radioactivity contained in each gas storage tank shall be limited to less than or equal to ~~6.5 x 10^4~~ 1.0×10^5 Curies of noble gases (considered as Xe-133 equivalent).

APPLICABILITY: At all times.

ACTION:

a. With the quantity of radioactive material in any gas storage tank exceeding the above limit, immediately suspend all additions of radioactive material to the tank, within 48 hours reduce the tank contents to within the limit, and describe the events leading to this condition in the next Semiannual Radioactive Effluent Release Report, pursuant to Specification 6.9.1.4.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.2.6 The quantity of radioactive material contained in each gas storage tank shall be determined to be within the above limit at least once per 24 hours when radioactive materials are being added to the tank.

Changes to Tables 3.3-13 and 4.3-9

Unit Vent Monitors for Iodine and Particulate (Items 3b, 3c) have been revised to use the word "sampler". This revision was made to allow the flexibility of using either the detectors or the filter samplers.

Changes to Table 4.3-9 were made to reflect Table 3.3-13 and include the addition of the ANALOG CHANNEL OPERATIONAL TEST, revision of notes and deletion of Note 5 (justification previously provided in the January 13, 1987 letter ST-HL-AE-1882). Table Note 1 is "NOT USED" at South Texas inasmuch as no automatic isolation occurs with the gaseous effluent monitors. Additionally, Table Note 2c was deleted for the same reasons previously described for Table 4.3-8, Note 1c.

TABLE 3.3-13

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

	INSTRUMENT	MINIMUM CHANNELS OPERABLE	APPLICABILITY	ACTION
1.	GASEOUS WASTE PROCESSING SYSTEM Explosive Gas Monitoring System			
	Oxygen Monitor (Process)	1	**	49
2.	Condenser Evacuation System			
	a. Condenser Air Removal System Discharge Header Noble Gas Activity Monitor	1	*	47
	b. Flow Rate Monitor	1	*	46
	c. Sampler Flow Rate Monitor	1	*	46
3.	Unit Vent			
	a. Noble Gas Activity Monitor	1	*	47
	b. Iodine ~~Monitor~~ Sampler	1	*	51
	c. Particulate ~~Monitor~~ Sampler	1	*	51
	d. Flow Rate Monitor	1	*	46
	e. Sampler Flow Rate Monitor	1	*	46

TABLE 3.3-13 (Continued)

TABLE NOTATIONS

* At all times.

** During GASEOUS WASTE PROCESSING SYSTEM operation.

ACTION STATEMENTS

ACTION 45 - (Not used)

ACTION 46 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue for up to 30 days provided the flow rate is estimated at least once per 4 hours.

ACTION 47 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue for up to 30 days provided grab samples are taken at least once per 12 hours and these samples are analyzed for radioactivity within 24 hours.

ACTION 48 - (Not used)

ACTION 49 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, operation of this GASEOUS WASTE PROCESSING SYSTEM may continue provided grab samples are collected at least once per 4 hours and analyzed within the following 4 hours.

ACTION 50 - (Not used)

ACTION 51 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via the affected pathway may continue for up to 30 days provided samples are continuously collected with auxiliary sampling equipment as required in Table 4.11-2.

TABLE 4.3-9

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	SOURCE CHECK	CHANNEL CALIBRATION	ANALOG OR DIGITAL CHANNEL OPERATIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
1. GASEOUS WASTE PROCESSING SYSTEM Explosive Gas Monitoring System					
Oxygen Monitor (Process)	D	N.A.	Q(5)	M	**
2. Condenser Evacuation System					
a. Consenser Air Removal System Discharge Header Noble Gas Activity Monitor	D	M	~~R(2)~~ R(3)	~~Q(1)~~ Q(2)	* 1, 2, 3, 4
b. Flow Rate Monitor	D	N.A.	R	Q	* 1, 2, 3, 4
c. Sampler Flow Rate Monitor	D	N.A.	R	Q	* 1, 2, 3, 4
3. Unit Vent					
a. Noble Gas Activity Monitor	D	M	~~R(2)~~ R(3)	~~Q(1)~~ Q(2)	*
b. Iodine ~~Monitor~~ Sampler	~~D~~ W	~~M~~ N.A.	~~R(2)~~ N.A.	~~Q(1)~~ N.A.	*
c. Particulate ~~Monitor~~ Sampler	~~D~~ W	~~M~~ N.A.	~~R(2)~~ N.A.	~~Q(1)~~ N.A.	*
d. Flow Rate Monitor	D	N.A.	R	Q	*
e. Sampler Flow Rate Monitor	D	N.A.	R	Q	*

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TABLE 4.3-9 (Continued)

TABLE NOTATIONS

* At all times.
** During WASTE GAS HOLDUP SYSTEM operation.

NOT USED
(1) The DIGITAL CHANNEL OPERATIONAL TEST shall also demonstrate that automatic isolation of this pathway and control room alarm annunciation occurs if any of the following conditions exists:

a. Instrument indicates measured levels above the Alarm/Trip Setpoint, or

b. Monitor failure, or

c. Instrument indicates a downscale failure, or

d. Instrument controls not set in operate mode.

(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. Monitor failure, or

~~c. Instrument controls not set in operate mode (CRT indication only).~~

(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.

NOT USED
(4) The CHANNEL CALIBRATION shall include the use of standard gas samples containing a nominal:

a. One volume percent hydrogen, balance nitrogen, and

b. Four volume percent hydrogen, balance nitrogen.

NOT USED
(5) The CHANNEL CALIBRATION shall include the use of standard gas samples containing a nominal:

a. One volume percent oxygen, balance nitrogen, and

b. Four volume percent oxygen, balance nitrogen.

Changes to Tech Spec 4.3.3.10, Tables 3.3-12 and 4.3-8

Surveillance Requirement 4.3.3.10 was amended to include an ANALOG OPERATIONAL Test since the Flow Rate Measurement Devices are analog devices, and thus would require this type of test.

In Tables 3.3-12 and 4.3-8, the Condensate Polisher Discharge, the Turbine/Generator Building Drain Monitors and associated flow measurement device (Items 1b & c, 2b) have been deleted inasmuch as these are Process Monitors and are in areas which are not considered effluent release points at South Texas. Refer to FSAR Section 11.5.3 for a description of the Effluent Monitors and FSAR Section 11.5.4 for the Process Monitors. Also, refer to NUREG-0781, Section 11.5.1 and 11.5.2, "Safety Evaluation Report for South Texas Project Units 1 and 2".

In the Table Notations for Table 4.3-8, Items 1c and 2 have been deleted. Table Notation 1c addresses actuation and annunciation when the instrument controls are not set in the operate mode, which HL&P interprets on the South Texas Digital Radiation Monitoring System as the equivalent of a monitor out of service. When a monitor is identified through the software as being "out of service", the actuations for monitor failure occur; however, control room annunciation may not occur. Accordingly, item 1c has been deleted. The use of item 2 was deleted inasmuch as the radiation monitor listed for this NOTATION does automatically isolate the pathway upon high radiation or monitor failure. (Item 1 is used instead.)

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INSTRUMENTATION

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.10 The radioactive liquid effluent monitoring instrumentation channels shown in Table 3.3-12 shall be OPERABLE with their Alarm/Trip Setpoints set to ensure that the limits of Specification 3.11.1.1 are not exceeded. The Alarm/Trip Setpoints of these channels shall be determined and adjusted in accordance with the methodology and parameters in the OFFSITE DOSE CALCULATION MANUAL (ODCM).

APPLICABILITY: At all times.

ACTION:

a. With a radioactive liquid effluent monitoring instrumentation channel Alarm/Trip Setpoint less conservative than required by the above specification, immediately suspend the release of radioactive liquid effluents monitored by the affected channel, or declare the channel inoperable.

b. With less than the minimum number of radioactive liquid effluent monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 3.3-12. Restore the inoperable instrumentation to OPERABLE status within the time specified in the ACTION, or explain in the next Semiannual Radioactive Effluent Release Report pursuant to Specification 6.9.1.4 why this inoperability was not corrected within the time specified.

c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.10 Each radioactive liquid effluent monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, SOURCE CHECK, CHANNEL CALIBRATION, and DIGITAL CHANNEL OPERATIONAL TEST, as applicable, at the frequencies shown in Table 4.3-8.

ANALOG CHANNEL OPERATIONAL TEST or

TABLE 3.3-12

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

INSTRUMENT	MINIMUM CHANNELS OPERABLE	ACTION
1. Radioactivity Monitors Providing Alarm and Automatic Termination of Release		
a. Liquid Waste Processing Discharge Monitor	1	35
b. Condensate Polisher Discharge Monitor	1	35
c. Turbine/Generator Building Drain Monitor	1	35
2. Flow Rate Measurement Devices		
a. Liquid Waste Processing Discharge Line	1	38
b. Condensate Polishing Discharge Line	1	38

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TABLE 3.3-12 (Continued)

ACTION STATEMENTS

ACTION 35 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue for up to 14 days provided that prior to initiating a release:

a. At least two independent samples are analyzed in accordance with Specification 4.11.1.1.1, and

b. At least two technically qualified members of the facility staff independently verify the release rate calculations and discharge line valving.

Otherwise, suspend release of radioactive effluents via this pathway.

ACTION 36 - (Not Used)

ACTION 37 - (Not Used)

ACTION 38 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue for up to 30 days provided the flow rate is estimated at least once per 4 hours during actual releases. Pump performance curves generated in place may be used to estimate flow.

TABLE 4.3-8

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	SOURCE CHECK	CHANNEL CALIBRATION	DIGITAL CHANNEL OPERATIONAL TEST
1. Radioactivity Monitors Providing Alarm and Automatic Termination of Release				
a. Liquid Waste Processing Discharge Monitor	D	P	R(3)	Q(1)
b. Condensate Polisher Discharge Monitor	D	M	R(3)	Q(1)
c. Turbine/Generator Building Drain Monitor	D	M	R(3)	Q(1)
2. Flow Rate Measurement Devices				
a. Liquid Waste Processing Discharge Line	D(4)	N.A.	R	Q
b. Condensate Polishing Discharge Line	D(4)	N.A.	R	Q

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TABLE 4.3-8 (Continued)

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. Monitor failure, or

~~c. Instrument controls not set in operate mode~~.

NOT USED

(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.

(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.

Justification for Specific Data in Tech Spec 3.11.1.4

An accidental spill of radioactive liquid from a temporary tank may result in surface and/or groundwater release paths. Due to the physical distance of the power block from the nearest surface water supply (Colorado River) only a groundwater release pathway has been considered. In addition to no direct pathways to surface water bodies, the Colorado River is unsuitable as a source of potable water. See FSAR Section 2.4.12.

The accidental spill analysis to the groundwater has been evaluated and is presented in FSAR Section 2.4.13.3.

It was determined that the isotopes present in highest concentrations and with long half-lives, H-3 (tritium), Cd-137, Sr-90 and I-129, were contained within the evaporator concentrates tank (ECT). The total radionuclide concentration in the ECT analysis is 91.3 μCi/cc. With a tank volume of 4,000 gallons, the ECT contains a total quantity of 1380 curies. The results of the accidental spill analysis indicated that by the time the tank spill reached the Colorado River via ground water, the radionuclide concentrations would be below the maximum permissible concentration (MPC) established in 10CFR Part 20, Appendix B, Table II,
Column 2. Therefore, an accidental tank spill into the groundwater from a tank containing 150 curies is enveloped by this previously analyzed event.

LIQUID HOLDUP TANKS*

LIMITING CONDITION FOR OPERATION

3.11.1.4 The quantity of radioactive material contained in each of the following unprotected outdoor tanks shall be limited to less than or equal to 150 Curies, excluding tritium and dissolved or entrained noble gases:

a. Outside temporary tank

APPLICABILITY: At all times.

ACTION:

a. With the quantity of radioactive material in any of the above listed tanks exceeding the above limit, immediately suspend all additions of radioactive material to the tank, within 48 hours reduce the tank contents to within the limit, and describe the events leading to this condition in the next Semiannual Radioactive Effluent Release Report, pursuant to Specification 6.9.1.4.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.1.4 The quantity of radioactive material contained in each of the above listed tanks shall be determined to be within the above limit by analyzing a representative sample of the tank's contents at least once per 7 days when radioactive materials are being added to the tank.

*Tanks included in this specification are those outdoor tanks that are not surrounded by liners, dikes, or walls capable of holding the tank contents and that do not have tank overflows and surrounding area drains connected to the Liquid Radwaste Treatment System.