UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

PUBLIC SERVICE COMPANY OF COLORADO

DOCKET NO. 50-267

FORT ST. VRAIN NUCLEAR GENERATING STATION

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 22
License No. DPR-34

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The applications for amendment by Public Service Company of Colorado (the licensee) dated March 23, 1976, March 7, 1979, August 13, 1979, August 29, 1979, September 28, 1979 and January 11, 1980, comply with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.D(2) of facility Operating License No. DPR-34 is hereby amended to read as follows:

   (2) Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 22, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. The license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Robert L. Tedesco, Assistant Director
for Licensing
Division of Licensing

Attachment:
Changes to the
Technical Specifications

Date of Issuance: August 19, 1980

ATTACHMENT

AMENDMENT NO. 22 TO

FACILITY OPERATING LICENSE DPR-34

DOCKET NO. 50-267

Remove existing pages 4.2-4, 4.2-21, 4.3-9, 4.3-10, 4.3-11, 4.6-2, 4.10-1, 4.10-2, 4.10-3, 5.2-10, 5.2-11, 5.2-21, 5.4-3, 5.4-11, 5.10-1, 5.10-2, 5.10-3, 6.1-3, 7.1-1, 7.1-2, 7.1-3, 7.1-4, 7.1-5, 7.1-6, 7.1-7, 7.1-9, 7.1-10, 7.1-11, 7.1-12, 7.1-13, 7.2-1, 7.4-1, and 7.4-2.

Also, add pages 4.2-4a, 4.3-12, 4.10-4, 4.10-5, 4.10-6, 4.10-7, 4.10-8, 4.10-9, 5.2-10a, 5.2-10b, 5.2-10c, 5.2-21(a), 5.2-22, 5.10-4, 5.10-5, and 5.10-6 which contain new material.

any normal operating conditions. For further explanation see FSAR Sections 1.4, 10.3 and 14.4.

Specification LCO 4.2.6 - Fire Water System/Fire Suppression Water System, Limiting Condition for Operation

The reactor shall not be operated at power unless the fire water system is operable including the following:

a) Both fire water pump pits are operable.

b) Both the motor driven and engine driven fire pumps are operable and there is at least 325 gallons of fuel for the engine driven pump in storage.

c) The discharge of both the fire water pumps is aligned to the fire water header.

d) An operable flow path shall exist from the fire water pump discharges to those fixed water spray systems, fire hose stations, and yard fire hydrants required to be operable in Specifications LCO 4.10.5, LCO 4.10.7, and LCO 4.10.8.

Basis for Specification LCO 4.2.6

The operability of the fire suppress on systems ensures that adequate fire suppression capability is available to confine and extinguish fires occurring in any portion of the facility where safety related equipment is located. The fire suppression system consists of the water system, spray and/or sprinklers, carbon dioxide, Halon, fire hose stations, and yard fire hydrants. The collective capability of the fire suppression systems is adequate to minimize potential damage to safety related equipment.

Basis for Specification LCO 4.2.6 (continued)

In addition to the fire suppression function either of the fire pumps operating in conjunction with either fire water booster pump provides adequate capacity to operate a circulator water turbine and supply emergency cooling water for safe shutdown cooling. With the 325 gallons of fuel in storage, the engine driven fire pump can operate at rated conditions for 24 hours which is adequate time to have more fuel delivered to the site. For further explanation, see Final Safety Analysis Report, Sections 1.4, 10.3, and 14.4.

Specification LCO 4.2.7 - PCRV Pressurization Limiting Conditions for Operation

The PCRV shall not be pressurized to more than 100 psia unless:

a) The PCRV safety valve installation is operable, and there is less than 5 psig between the rupture disc and relief valve, and both inlet block valves are locked open.

*b) All primary and secondary penetration closures and hold down plates are in place and operable, per Specification LCO 4.2.9.

*c) The interspaces between the primary and secondary penetration closures are maintained at a pressure greater than primary system pressure with purified helium gas.

*During the initial low power physics testing ($\leq$ 0.1% of rated thermal power) with the PCRV pressurized and when helium circulators C and D are in the pre-nuclear Pelton wheel configuration, exceptions to provisions b) and c) of this LCO will be the installation of the secondary closures and pressurization of the primary secondary closure interspace of C and D helium circulator penetrations.

Specification LCO 4.2.17 - Diesel-Driven Generator for ACM, Limiting Conditions for Operation

The reactor shall not be operated at power unless the ACM diesel-generator is operable, including the following:

1. One fuel oil transfer pump from the fuel oil storage tanks to the diesel fuel oil day tank is operable.

2. The associated switchgear and motor control center are operable.

3. There are at least 10,000 gallons of fuel total in storage.

The diesel-generator set may be inoperable for up to 7 consecutive days per month or a total of 21 days in a three month period for performance of maintenance, with the reactor at power.

Basis for Specification LCO 4.2.17

The ACM diesel-generator provides power independently of the plant electrical distribution network to various valves, lighting, and pieces of equipment. That equipment provides an alternate means of maintaining PCRV cooling during the Loss of Forced Circulation situation described in the Final Safety Analysis Report, Section 14.10.

The 10,000 gallons of fuel provides for 108 hours operation of the generator with full ACM load, which is adequate time for obtaining additional fuel from off site sources.

Specification LCO 4.2.18 - Primary Coolant Depressurization Limiting Condition for Operation

The reactor shall not be operated at power unless a flow path for depressurization of the primary system exists that includes the HTFA, Helium Purification Cooler, Helium Purification Dryer, Low Temperature Gas-to-Gas Exchanger, LTA, and associated valves and piping to the reactor building exhaust ducting.

Basis for Specification LCO 4.2.18

In the event that permanent loss of forced circulation occurs, it is necessary to depressurize the primary coolant system. Start of depressurization following onset of loss of circulation is initiated as a function of prior power levels, 2 hours from full power operation, and is completed in approximately seven hours. Depressurization is completed by venting the purified gas to the atmosphere.

TABLE 4.3.10-1

CLASS I HYDRAULIC SNUBBERS

Turbine Water Drain Snubbers

TWDS-1	TWDS-6
TWDS-2	TWDS-7
TWDS-3	TWDS-8
TWDS-4	TWDS-9
TWDS-5	TWDS-10

Cold Reheat Snubbers - Circulator

CRS-C1-1	CRS-C3-1
CRS-C1-2	CRS-C3-2
CRS-C1-3	CRS-C3-3
CRS-C1-4	CRS-C3-4
CRS-C1-5	CRS-C3-5
CRS-C1-6	CRS-C3-6
CRS-C2-1	CRS-C4-1
CRS-C2-2	CRS-C4-2
CRS-C2-3	CRS-C4-3
CRS-C2-4	CRS-C4-4
CRS-C2-5	CRS-C4-5
CRS-C2-6	CRS-C4-6

Cold Reheat Snubbers

CRS-29	CRS-262	CRS-589
CRS-31	CRS-297	CRS-591
CRS-72	CRS-317-1	CRS-632
CRS-76	CRS-317-2	CRS-636
CRS-104	CRS-371	CRS-664
CRS-114	CRS-372	CRS-674
CRS-144	CRS-474	CRS-707
CRS-146	CRS-476	CRS-742
CRS-187	CRS-517	CRS-751
CRS-191	CRS-521	CRS-752
CRS-219	CRS-549	CRS-821
CRS-229	CRS-556-1	CRS-822
	CRS-556-2	

TABLE 4.3.10-1 (continued)

CLASS I HYDRAULIC SNUBBERS (continued)

Hot Reheat Snubbers

HRS-23	HRS-128	HRS-246	HRS-356
HRS-24	HRS-129	HRS-278	HRS-357
HRS-26	HRS-131	HRS-279	HRS-378
HRS-58	HRS-158	HRS-281	HRS-379
HRS-59	HRS-159	HRS-289	HRS-381
HRS-61	HRS-161	HRS-314	HRS-413
HRS-69	HRS-193	HRS-315	HRS-414
HRS-94	HRS-194	HRS-318	HRS-416
HRS-95	HRS-196	HRS-321	HRS-421
HRS-98	HRS-201	HRS-324	HRS-422
HRS-101	HRS-202	HRS-348	HRS-428
HRS-103	HRS-205	HRS-349	HRS-985
HRS-104	HRS-243	HRS-351	HRS-990
HRS-105	HRS-244		

Main Steam Snubbers

MSS-9	MSS-118	MSS-194	MSS-321
MSS-16	MSS-120-1	MSS-201	MSS-339
MSS-17	MSS-120-2	MSS-204	MSS-346
MSS-18	MSS-120-3	MSS-206	MSS-347
MSS-19	MSS-125	MSS-222	MSS-348
MSS-27	MSS-126	MSS-239	MSS-356
MSS-29		MSS-246	
MSS-44	MSS-135-1	MSS-247	MSS-369
MSS-51	MSS-139	MSS-248	MSS-376
MSS-52	MSS-145-1	MSS-249	MSS-377
MSS-54	MSS-145-2	MSS-257	MSS-379
MSS-61	MSS-145-3	MSS-258	
MSS-64	MSS-146	MSS-274	
MSS-74	MSS-147	MSS-281	MSS-414
MSS-81	MSS-149	MSS-284	MSS-421
MSS-82		MSS-291	MSS-422
MSS-84		MSS-304	MSS-424
MSS-109	MSS-184	MSS-311	MSS-431
MSS-116	MSS-191	MSS-312	MSS-433
MSS-117	MSS-192	MSS-314	MSS-822-1

TABLE 4.3.10-1 (continued)

CLASS I HYDRAULIC SNUBBERS (continued)

Boiler Feed Snubbers Generators

BFS-B1-1	BFS-B1-4	BFS-B2-1	BFS-B2-4
BFS-B1-2	BFS-B1-5	BFS-B2-2	BFS-B2-5
BFS-B1-3	BFS-B1-6	BFS-B2-3	BFS-B2-6

Boiler Feed Snubbers

BFS-54	BFS-421	BFS-526	BFS-577
BFS-138	BFS-422	BFS-528	BFS-614
BFS-139	BFS-425	BFS-529	BFS-641
BFS-142	BFS-434-1	BFS-530	BFS-679
BFS-149	BFS-434-2	BFS-532	BFS-711
BFS-152	BFS-434-3	BFS-534	BFS-763
BFS-153	BFS-435	BFS-536	BFS-764
BFS-297	BFS-437	BFS-537	BFS-796
BFS-352	BFS-451	BFS-553-1	BFS-820
BFS-397	BFS-477	BFS-553-2	BFS-823
BFS-398	BFS-479	BFS-556	BFS-824
BFS-400	BFS-498	BFS-563	BFS-843
BFS-402	BFS-500	BFS-564	BFS-844
BFS-412	BFS-501	BFS-566	BFS-870
BFS-416	BFS-516	BFS-572	BFS-871
BFS-420	BFS-523	BFS-573	

Boiler Feed Snubbers - Emergency

BFS-14E	BFS-89E	BFS-219E	BFS-399E
BFS-15E	BFS-122E	BFS-228E	BFS-405E
BFS-16E	BFS-141E	BFS-229E	BFS-414E
BFS-26E	BFS-142E	BFS-243E	BFS-417E
BFS-29E	BFS-143E	BFS-244E	BFS-419E
BFS-30E	BFS-158E	BFS-245E	BFS-421E
BFS-31E	BFS-167E	BFS-257E	BFS-422E
BFS-47E	BFS-181E	BFS-260E	BFS-423E
BFS-53E	BFS-197E	BFS-263E	BFS-430E
BFS-56E	BFS-203E	BFS-264E	BFS-431E
BFS-57E	BFS-204E	BFS-268E	BFS-432E
BFS-74E	BFS-210E	BFS-269E	BFS-442E
BFS-76E	BFS-216E		BFS-444E
BFS-77E	BFS-218E	BFS-398E	

TABLE 4.3.10-1 (continued)

CLASS I HYDRAULIC SNUBBERS (continued)

Hydraulic Oil Snubbers

HOS-1	HOS-22	HOS-48	
HOS-2	HOS-23	HOS-49	HOS-71
HOS-3	HOS-24	HOS-50	HOS-72
HOS-4-1	HOS-25	HOS-51	HOS-73
HOS-4-2	HOS-27	HOS-52	HOS-74
HOS-5	HOS-28	HOS-53	HOS-75
HOS-6	HOS-29	HOS-54	HOS-76
HOS-7	HOS-30	HOS-55	HOS-77
HOS-8	HOS-31	HOS-56	HOS-78
HOS-9	HOS-33	HOS-57	HOS-79
HOS-10	HOS-34	HOS-58	HOS-80
HOS-11	HOS-35	HOS-59	HOS-81
	HOS-36	HOS-60	HOS-82
HOS-13	HOS-37	HOS-61	HOS-83
HOS-14	HOS-38	HOS-63	HOS-84
HOS-15	HOS-39	HOS-64	HOS-85
HOS-16	HOS-40	HOS-65	HOS-86
HOS-17	HOS-41	HOS-66	HOS-87
HOS-18	HOS-42		HOS-88
HOS-19	HOS-45		HOS-89
HOS-20	HOS-46		HOS-90
HOS-21			

Emergency Condensate Snubbers

ECS-1	ECS-3	ECS-5	ECS-7
ECS-2	ECS-4	ECS-6	

Vent Stack Snubbers

VSS-101	VSS-107	VSS-113	VSS-119
VSS-102	VSS-108	VSS-114	VSS-120
VSS-104	VSS-110	VSS-116	VSS-122
VSS-105	VSS-111	VSS-117	VSS-123

c) The auxiliary power 480 V a-c essential buses 1A, 1B and 1C must be operable.

Each essential bus may be inoperable for 12 hours provided the following conditions are satisfied:

1. Only one 480 V essential bus is inoperable at a time.
2. 4160 V a-c bus 1B is operable.
3. Engine Driven Fire Pump is operable.
4. Emergency Condensate Header is operable.
5. The diesel-generator set(s) supplying the remaining operable 480 V a-c essential buses are operable.
6. All equipment supplied by the operable esse[illegible]ses, associated with Safe Shutdown Cooling must be operable.
7. Reactor building exhaust fans supplied from the operable essential buses must be operable.

d) Both the diesel-generator sets are operable, including the following:

1. One fuel oil transfer pump from the diesel fuel oil storage tank to the diesel fuel oil day tanks.
2. One starting air compressor and receiver per diesel-generator set.
3. Associated automatic load shedding, load programming, and auto diesel-generator set starting equipment.
4. 325 gallons of fuel in each day tank.

One diesel generator set may be inoperable for up to 7 days (total for both) during any month provided the

4.10 Fire Suppression Systems - Limiting Conditions for Operation

Applicability

Applies to the minimum operable equipment for the plant fire suppression system.

Objective

To ensure that the capability for suppressing any fire involving safety related equipment is maintained.

Specification LCO 4.10.1 - Room Isolation Dampers, Three Room Control Complex, Limiting Condition for Operation

The HVAC Room Isolation Dampers of the control room, auxiliary electric room and the 480 volt switchgear room, shall be operable during reactor power operation. If the dampers become inoperable and cannot be made operable within 72 hours, the reactor shall be shut down in an orderly manner.

Basis for Specification LCO 4.10.1

The HVAC room isolation dampers for the control room, auxiliary electric room and the 480 volt switchgear room, provide the required area isolation for maintaining an effective concentration of Halon after actuation of the Halon fire suppression system.

Specification LCO 4.10.2 - Halon Fire Suppression System, Three Room Control Complex, Limiting Condition for Operation

The Halon Fire Suppression system for the control room, auxiliary electric room, and the 480 volt switchgear room shall be operable during reactor power operation. If the Halon system becomes inoperable and cannot be made operable within 72 hours the reactor shall be shut down in an orderly manner.

Basis for Specification LCO 4.10.2

The Halon system provides fire suppression capability for the control room, auxiliary electric room, and the 480 volt switchgear room. Halon is a non-toxic, halogenated chemical fire suppressant. The Halon system is a total flooding extinguishing system divided into three sections. One section supplies the 480 volt switchgear room, the second section supplies the control room, and the third the auxiliary electric room. Total flooding of these areas will extinguish an active fire without requiring abandonment of the area.

The auxiliary electric room Halon System Section is automatically initiated by the simultaneous actuation of a detector in zone #2 and #3 of Table 4.10-3; the 480 volt room Halon System Section is automatically initiated by the simultaneous actuation of a detector in fire detection zone #5 and #6 of Table 4.10-3.

The Halon System Section for the 480 volt switchgear room may be manually initiated by a switch located just outside the door of the room. The Halon System for the auxiliary electric room may be manually initiated by a switch located just outside of the room. The Halon System Section of the control room is manually initiated by a switch located in the control room. In the event that electrical power is not available to initiate Halon System operation, each Halon storage bottle is provided with a manually operated release mechanism which will release the bottle contents when operated.

Specification LCO 4.10.3 - Smoke Detectors and Alarms for Three Room Control Complex and Congested Cable Areas, Limiting Condition for Operation

The reactor shall not be operated at power unless the minimum number of smoke detectors for each of the zones listed in Table 4.10-3 are operable. If the minimum number of detectors of each zone are not operable, the following actions shall be taken:

An individual shall be designated to inspect the area or areas with inoperable detectors once per hour.

The inoperable detectors shall be made operable within thirty (30) days or the reactor shall be shut down in an orderly manner.

Basis for Specification LCO 4.10.3

The smoke detection and alarm system provides detection and alarm capability for the control room, auxiliary electric room, the 480 volt switch gear room, the congested cable areas located at the "G" and "J" column rows and selected reactor building HVAC return air ducts in various areas which are not normally manned.

In additionthe system will automatically initiate operation of the Halon fire suppression system in the auxiliary electric room or the 480 volt switch-gear room upon actuation of a detector in both of the zones in each room.

The system alerts the operator to the possibility of a fire in the congested cable areas and to the necessity of investigation of conditions in these areas.

Specification LCO 4.10.4 - Fire Barrier Penetration Seals, Limiting Condition for Operation

All fire barrier penetration seals shall remain intact. If a fire barrier penetration seal is disturbed, a continuous fire watch shall be posted on either side of the disturbed seal.

Basis for Specification LCO 4.10.4

There are a number of fire barrier penetration seals installed between vital plant areas where cables penetrate walls which act as fire stops. In order to prevent the spread of a fire from one vital area to another, cable penetrations have been sealed with various fire retardant materials. If the material of a fire barrier must be disturbed for maintenance, establishing a fire watch on either side of the barrier assures early notification of a potential fire hazard.

Specification LCO 4.10.5 - Fixed Water Spray System, Limiting Condition for Operation

The following fixed water spray or sprinkler systems shall be operable during power operation:

a) The 480 volt switchgear room system.

b) The auxiliary electrical equipment room system.

c) The system serving the congested cable area of the reactor building side of the "J" wall.

d) The system serving the congested cable area of the turbine building side of the "G" wall.

e) The Loop 1 hydraulic power unit system.

f) The Loop 2 hydraulic power unit system.

g) The boiler feed pump 1A system.

h) The boiler feed pump 1C system.

i) Auxiliary boiler room.

j) Reactor plant exhaust filters.

If one or more of the spray systems becomes inoperable, a fire watch shall be established along with backup fire suppression equipment for the affected area or areas. The affected area will be inspected once per hour. If the system or systems can not be made operable within 14 days the reactor shall be shutdown in an orderly manner.

Basis for Specification LCO 4.10.5

The operability of the fire suppression systems ensures that adequate fire suppression capability is available to confine and extinguish fires occurring in any portion of the facility where safety related equipment is located. The fire suppression system consists of the water system, spray and/or sprinklers, carbon dioxide, Halon, fire hose stations, and yard fire hydrants. The collective capability of the fire suppression systems is adequate to minimize potential damage to safety related equipment and is a major element in the facility fire protection program.

In the event that portions of the fire suppression systems are inoperable, alternate backup fire fighting equipment is required to be made available in the affected areas until the inoperable equipment is restored to service.

Specification LCO 4.10.6 - Carbon Dioxide Fire Suppression System, Emergency Diesel Generator Rooms, Limiting Condition for Operation

The carbon dioxide fire suppression system for the emergency diesel generator rooms shall be operable whenever the emergency diesel generators are required to be operable.

If the carbon dioxide fire suppression system becomes inoperable, the following action shall be taken:

An individual shall be assigned to inspect the emergency diesel generator rooms once per hour.

Alternate fire suppression equipment shall be stationed outside the emergency diesel generator rooms.

The carbon dioxide fire suppression system shall be made operable within 30 days or the emergency diesel generators shall be considered inoperable.

Basis for Specification LCO 4.10.6

The carbon dioxide fire suppression system provides for detection and suppression of fires in the emergency diesel generator rooms, areas which are not normally manned, and manual backup fire suppression for the 480 volt room and auxiliary boiler room areas.

In the event part of the carbon dioxide fire suppression system becomes inoperable the hourly inspections and portable fire fighting equipment made available will minimize the possibility of fire damage to safety related equipment.

Specification LCO 4.10.7 - Fire Hose Stations, Limiting Condition for Operation

The fire hose stations listed in Table 4.10-7 shall be operable whenever the equipment they protect is required to be operable.

If one or more of these fire hose stations should become inoperable, an alternate fire hose shall be laid out to the unprotected area from an operable fire hose station.

Fire hose stations may be added to Table 4.10-7 without prior License Amendment provided a revision to Table 4.10-7 is included with a subsequent License Amendment request.

Basis for Specification LCO 4.10.7

The fire water system is the plant's primary fire suppression system and provides the final backup to all other fire suppression systems. The fire water hoses, or laid out alternates, provide adequate protection for required equipment to minimize damage in case of a fire.

TABLE 4.10-7

HOSE STATION NO.	BUILDING	ELEVATION
TH 6	Turbine	4829
TH 7	Turbine	4829
TH 8	Turbine	4829
TH 9	Turbine	4829
TH 10	Turbine	4811
TH 11	Turbine	4811
TH 12	Turbine	4811
TH 13	Turbine	4811
TH 1	Turbine	4791
TH 2	Turbine	4791
TH 3	Turbine	4791
TH 4	Turbine	4791
TH 5	Turbine	4791
ACH 3	Access Bay	4885
ACH 4	Access Bay	4885
ACH 6	Access Bay	4864
ACH 7	Access Bay	4864
ACH 8	Access Bay	4846

TABLE 4.10-7 (continued)

HOSE STATION NO.	BUILDING	ELEVATION
ACH 5	Access Bay	4885
ACH 2	Access Bay	4940
ACH 1	Access Bay	4960
RH 39	Reactor	4916
RH 40	Reactor	4916
RH 38	Reactor	4906
RH 34	Reactor	4881
RH 35	Reactor	4881
RH 36	Reactor	4881
RH 37	Reactor	4881
RH 30	Reactor	4864
RH 31	Reactor	4864
RH 32	Reactor	4864
RH 33	Reactor	4864
RH 28	Reactor	4854
RH 29	Reactor	4849
RH 26	Reactor	4839
RH 27	Reactor	4839
RH 22	Reactor	[illegible]
RH 23	Reactor	4829
RH 24	Reactor	4829
RH 25	Reactor	4829
RH 20	Reactor	4811
RH 21	Reactor	4811

TABLE 4.10-7 (continued)

HOSE STATION NO.	BUILDING	ELEVATION
RH 18	Reactor	4801
RH 19	Reactor	4801
RH 15	Reactor	4791
RH 16	Reactor	4791
RH 17	Reactor	4791
RH 13	Reactor	4781
RH 14	Reactor	4781
RH 10	Reactor	4771
RH 12	Reactor	4771
RH 9	Reactor	4769
RH 11	Reactor	4769
RH 6	Reactor	4759
RH 7	Reactor	4759
RH 5	Reactor	4756
RH 8	Reactor	4756
RH 1	Reactor	4740
RH 2	Reactor	4740
RH 3	Reactor	4740
RH 4	Reactor	4740

Specification LCO 4.10.8 - Yard Fire Hydrants and Hydrant Hose Houses, Limiting Conditions for Operation

The following yard fire hydrants and associated hydrant hose houses shall be operable during power operation:

a) Number 1 northeast of the circulating water valve pit.

b) Number 3 north of the circulating water cooling tower.

c) Number 6 south of the circulating water cooling tower.

d) Number 7 southeast of the service water cooling tower.

e) Number 11 southeast of the turbine building.

If one or more of the yard fire hydrants or associated hydrant hose houses become inoperable, locate sufficient additional lengths of 2 1/2 inch diameter hose in an adjacent operable hydrant hose house to provide service to the unprotected area.

Basis for Specification LCO 4.10.8

The operability of the fire suppression systems ensures that adequate fire suppression capability is available to confine and extinguish fires occurring in any portion of the facility where safety related equipment is located. The fire suppression system consists of the water system, spray and/or sprinklers, carbon dioxide, Halon, fire hose stations, and yard fire hydrants. The collective capability of the fire suppression systems is adequate to minimize potential damage to safety related equipment and is a major element in the facility fire protection program.

In the event that portions of the fire suppression systems are inoperable, alternate backup fire fighting equipment is required to be made available in the affected areas until the inoperable equipment is restored to service.

Basis for Specification SR 5.2.8

During accident conditions described in FSAR Section 10.3.9, the circulator bearing water makeup pump is required to operate intermittently to make up bearing water. The specified testing interval is sufficient to ensure proper operation of the pumps and associated controls.

Specification SR 5.2.9 - He Circulator Bearing Water Accumulators

The helium circulator bearing water accumulators, instrumentation, and controls shall be functionally tested monthly and calibrated annually.

Basis for Specification SR 5.2.9

He Circulator bearing water is normally supplied from the bearing water system and is backed up by the backup bearing water system supplied from the Emergency Feedwater Header. In the event of a failure in both of these systems, the water stored in the bearing water accumulators is adequate to safely shut down both helium circulators in a loop. The monthly test interval and annual calibration interval will assure proper operation of the accumulator controls if they should ever be called upon to function.

Specification SR 5.2.10 - Fire Water System/Fire Suppression Water System, Surveillance Requirement

a) The fire water system shall be verified operable as follows:

1) The motor driven and engine driven fire pumps shall be functionally tested monthly. The associated instruments and controls shall be functionally tested monthly and calibrated annually.

2) The diesel engine fuel shall be inventoried monthly and sampled and tested quarterly.

3) The diesel engine shall be inspected during each refueling shutdown.

4) The diesel engine starting battery and charger shall be inspected weekly for proper electrolyte level and overall battery voltage. The battery electrolyte shall be tested quarterly for proper specific gravity.

5) The batteries, cell plates, and battery racks, shall be inspected each refueling cycle for evidence of physical damage or abnormal degradation. The battery-to-battery and terminal connections shall be verified to be clean, tight, free of corrosion, and coated with anti-corrosion material each refueling cycle.

b) The fire suppression water system shall be verified operable as follows:

1) Monthly by verifying that each valve (manual, power operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.

Specification SR 5.2.10 - Fire Water System/Fire Suppression Water System, Surveillance Requirement (continued)

2) Semi-annually by performance of a fire suppression water system flush.

3) Annually by cycling each testable valve in the fire suppression water system flow path through at least one complete cycle of full travel.

4) Each refueling cycle by performing a fire suppression water system functional test which includes simulated automatic actuation of the system throughout its operating sequence, and:

   (a) Verifying that each automatic valve in the flow path actuates to its correct position.

   (b) Verifying that each fire water pump develops at least 1,500 gpm at a system head of 290 feet.

   (c) Cycling each valve in the flow path that is not testable during plant operation through at least one complete cycle of full travel.

   (d) Verifying that each fire water pump starts sequentially to maintain the fire suppression water system pressure at greater than or equal to 125 psig.

5) Each three years by performing a flow test.

Specification SR 5.2.10 - Fire Water System/Fire Suppression Water System, Surveillance Requirement (continued)

Basis for Specification SR 5.2.10

The fire water pumps are required to supply water for fire suppression and safe shutdown cooling. The specified testing interval is sufficient to ensure proper operation of the pumps and controls. The motor driven pump routinely operates intermittently.

The operability of the fire suppression water system ensures that adequate fire suppression and emergency safe shutdown cooling capability is available. The specified testing interval is sufficient to ensure proper operation of the system when required.

Specification SR 5.2.11 - Primary Reactor Coolant Radioactivity Surveillance

A grab sample of primary coolant shall be analyzed a minimum of once per week during reactor operation for its radioactive constituents and shall be used to calibrate the continuous primary coolant activity monitor.

If the continuous primary coolant activity monitors is inoperable, the primary coolant activity level reaches 25% of the limits of LCO 4.2.8, or the primary coolant acitivity level increases by a factor of 25% over the previous equilibrium value of the same reactor power level, the frequency of sampling and analysis shall be increased to a minimum of once each day until the activity level decreases or reaches a new equilibrium value (defined by four consecutive daily analysis whose results are within $\pm$ 10%) at which time weekly sampling may be resumed.

Basis for Specification SR 5.2.11

The design of the instrumentation is such that under normal operating conditions the activity of the primary coolant is measured and indicated on a continuous basis. The weekly sampling interval provides an adequate check on the continuous monitoring equipment.

Specification SR 5.2.12 - Primary Reactor Coolant Chemical Surveillance

The primary coolant shall be analyzed for chemical constituents a minimum of once per week. If the chemical impurity levels exceed 50 percent of the limits of LCO 4.2.10 or LCO 4.2.11, whichever is applicable, the frequency of sampling and analysis shall be increased to a minimum of once each day until the level decreases or reaches a new equilibrium value (defined by four consecutive daily analysis whose results are within $\pm$ 10%), at which time weekly sampling may be resumed.

Specification SR 5.2.23 - Firewater Booster Pump Surveillance

Each firewater booster pump shall be tested annually by providing motive power to one water turbine drive in conjunction with the performance of SR 5.2.7. In addition each pump shall be functionally tested quarterly. The associated instruments and controls shall functionally be tested quarterly and calibrated annually.

Basis for Specification SR 5.2.23

During accident conditions described in Final Safety Analysis Report, Section 14.4.2.1, one of the firewater booster pumps and one firewater pump are required to provide adequate core cooling. The specified testing interval is sufficient to ensure proper operation of the pump and associated controls.

Specification SR 5.2.24 - Circulating Water Makeup System, Surveillance Requirement

The circulating water makeup system shall be verified operable as follows:

a) The circulating water makeup pond minimum inventory shall be verified daily. The pond level instrumentation shall be functionally tested monthly and calibrated annually.

b) The circulating water makeup pumps shall be functionally tested weekly. The pump controls and instrumentation including the fire water pump pits shall be functionally tested monthly and calibrated annually.

c) The valve lineup of the flow path between the circulating water storage ponds and the fire water pump pits shall be verified correct monthly.

Basis for Specification SR 5.2.24

The circulating water makeup system is required to supply water for fire suppression and safe shutdown cooling. The specified testing interval is sufficient to ensure proper operation of the pumps and controls. The system routinely operates during normal plant operation.

Table 5.4-1

MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS, AND TESTING OF SCRAM SYSTEM

Channel Description	Function	Frequency (1)	Method
1. Manual (Control Room)	a. Test	R	a. Manually trip system
2. Manual (1-49)	a. Test	M	a. Manually trip each channel
3. Start-Up Channel	a. Check	D	a. Comparison of two separate channel indicators
	b. Test	P	b. Internal test signal to verify trips, and alarms
	c. Calibrate	R	c. ~~Internal test signal to verify indication and set trip point~~
4. Linear Power Channel	a. Check	D	a. Comparison of 6 separate channel indicators
	b. Test	M	b. Internal test signal to verify trips, and alarms
	c. Calibrate	D	c. Channel adjusted to agree with heat balance calculation
	d. Calibrate	R	d. Internal Test signals to adjust trips and indications
5. Wide Range Power Channel	a. Check	D	a. Comparison of three separate indicators
	b. Test	P	b. Internal Test signals to verify trips and alarms
	c. Calibrate	M	c. Channel adjusted to agree with heat balance calculation
	d. Calibrate	R	d. Internal Test signals to adjust trips and indications
6. Primary Coolant Moisture (all channels)	a. Check	D	a. Comparison of two separate high level channel mirror temperature indications
	b. Check	D	b. Comparison of six separate low level channel mirror temperature indications

internal test signal shall be checked and calibrated to
ure that its output is in accordance with the design
uirements. This shall be done after completing the
ternal test signal procedure by checking the output
ication when turning the internal test signal switch.

Amendment No. 22

Table 5.4-4

MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND TESTING OF ROD WITHDRAWAL PROHIBIT SYSTEM

Channel Description	Function	Frequency	Method
1. Start Up Channel	a. Check	D	a. Comparison of two separate Channel indicators.
	b. Test	P	b. Internal test signal to verify all trips and alarms.
	c. Calibrate	R	c. The internal test signal shall be checked and calibrated to assure that its output is in accordance with the design requirements. This shall be done after completing the external test signal procedure by checking the output indication when turning the internal test signal switch.
2. Linear Channel	a. Check	D	a. Comparison of 6 separate level indicators.
	b. Test	M	b. Internal test signal to verify trips and alarms.
	c. Calibrate	D	c. Channel adjusted to agree with heat balance calculation.
	d. Calibrate	R	d. Internal test signals to adjust trips and indications.
3. Wide Range Power Channel	a. Check	D	a. Comparison of three separate indicators.
	b. Test	P	b. Internal test signals to verify trips and alarms.
	c. Calibration	M	c. Channel adjusted to agree with heat balance calculation.
	d. Calibration	R	d. Internal test signals to adjust trips and indications.
4. Multiple Rod Pair Withdrawal	a. Test	P	a. Attempt two rod pair withdrawal.
	b. Check	R	b. Simulate current through sensor to verify trip and alarms.

NOTE 1: D - Daily when in use
M - Monthly
R - Once per refueling cycle
P - Prior to each start-up if not done previous week

Amendment No. 22

5.10 Fire Suppression Systems - Surveillance Requirements

Applicability

Applies to the surveillance of the fire suppression and protection systems and equpment.

Objective

To establish the minimum frequency and type of surveillance on the equipment of the fire suppression and protection equipment to assure that the capability exists for suppressing any fire involving safety related equipment.

Specification SR 5.10.1 - Three Room Control Complex HVAC System, Surveillance Requirement

The HVAC isolation dampers and associated fans of the control room, auxiliary electric room, and the 480 volt switchgear room, shall be tested annually to verify correct response to a simulated actuation signal from the Halon Fire Suppression System.

Basis for Specification SR 5.10.1

Annual testing of the room isolation dampers and associated fans of the three-room control complex is sufficient to demonstrate capability to operate when required by the Halon Fire Suppression System. The dampers in the ventilation systems of the control and auxiliary electric rooms, and of the 480 volt switchgear room automatically close upon actuation of the Halon Fire Suppression System for that room. At the same time, the various ventilation fans associated with these areas are also tripped off or prevented from starting. The isolation of the ventilation system concurrent with Halon discharge is required to maintain effective concentrations of Halon in the area of the fire.

Specification SR 5.10.2 - Halon Fire Suppression System, Surveillance Requirements

Operability of the Halon fire suppression system for the control room, auxiliary electric equipment room, and 480 volt switchgear room shall be demonstrated as follows:

a) Quarterly, verify that Halon Storage Cylinder weight is at least 95% of full rated charge.

b) Quarterly, verify that Halon Storage Cylinder pressure is at least 90% of full rated charge.

c) Annually, verify that distribution headers and nozzles are open by flowing clean air at low pressure through the system.

d) Annually, verify response of system to an actuation signal by disconnecting each solenoid coil and measuring the voltage created by the actuating signal.

Basis for Specification SR 5.10.2

Quarterly, check-weighing and pressure verification of the Halon Fire Suppression System cylinders meets the requirements of NFPA Code Section 12A for fire suppression system operability tests. Annual verification that the distribution headers are not plugged demonstrates their ability to distribute Halon when needed to suppress a fire, while measurement of an actuation signal to the solenoid coil of each cylinder release mechanism gives extra assurance that the system will be capable of performing its design function when required.

Specification SR 5.10.3 - Smoke Detectors and Alarm, Surveillance Requirement

The smoke detectors and alarms listed in Table 4.10-3 shall be demonstrated operable as follows:

a) Monthly by functional test of the non-supervised circuits between the local panels and the main control panel.

b) Semi-annually by functional test of the smoke detectors and alarms, and by functional test of supervisory circuits associated with the smoke detector alarms.

Basis for Specification SR 5.10.3

Operability of the fire detection instrumentation ensures that adequate warning capability is available for the prompt detection of fires. This capability is required in order to detect and locate fires in their early stages. Testing at the specified intervals is sufficient to ensure operability of the system.

Specification SR 5.10.4 - Fire Barrier Penetration Seal, Surveillance Requirements

Fire Barrier Penetration Seals shall be visually inspected:

a) Annually, to verify each remains intact, or

b) Immediately following any maintenance which disturbs the retardant material, to verify seal is returned to its previous condition.

Basis for Specification SR 5.10.4

Inspection of penetration seals either annually or following maintenance assures that the Fire Barrier Penetration Seals remain unchanged.

Specification SR 5.10.5 - Breathing Air System, Surveillance Requirement

The operability of the Breathing Air System shall be demonstrated annually, as follows:

a) Functionally test the compressors and air supply piping.

b) Test the quality of the air supplied.

Basis for Specification SR 5.10.5

The Breathing Air System and associated piping supplies compressed air for recharging air cylinders of self-contained breathing apparatus and to the control room for personnel use with approved breathing equipment, in a Halon or toxic gas atmosphere. By functionally testing the system annually, assurance of breathing air availability and quality is provided.

Specification SR 5.10.6, Fixed Water Spray System, Surveillance Requirement

Each of the fixed water spray systems listed in LCO 4.10.5 shall be verified operable as follows:

a) Annually by cycling each valve in the flow path through one complete cycle of full travel.

b) Each refueling cycle by inspection of the flow headers to verify their integrity and inspection of each nozzle to verify no blockage.

c) At least once per three years by performing an air flow test through each open head spray/sprinkler header and verifying each open head spray/sprinkler nozzle is unobstructed.

d) The temperature instruments and controls associated with the reactor plant exhaust filters shall be functionally tested semi-annually.

Basis for Specification SR 5.10.6

Operation of the valves and verification of the flow path at the specified intervals is sufficient to demonstrate capability to operate if required.

Semi-annually testing the temperature instruments and controls associated with the reactor plant exhaust filters is sufficient to ensure operability of the system.

Specification SR 5.10.7 - Carbon Dioxide Fire Suppression System, Surveillance Requirement

The carbon dioxide fire suppression system shall be demonstrated operable as follows:

a) Weekly - verify storage tank level and pressure.

b) Annually:

1) Verify operation of system valves and associated dampers upon actuation signal.

2) Verify flow from each nozzle during a "puff test".

Basis for Specification SR 5.10.7

A weekly check of level and pressure in the carbon dioxide storage tank insures sufficient carbon dioxide for fire suppression and the support equip-

ment is operating properly.

An annual flow check and simulated automatic actuation of the system along with the regular calibration of system instrumentation provides adequate assurance that the system will be ready to suppress any fire that could occur in the emergency diesel generator rooms.

Specification SR 5.10.8 - Fire Hose Stations, Surveillance Requirement

Each of the fire hose stations listed in Table 4.10-7 shall be checked monthly to insure all required equipment is at the station.

The fire hoses at these stations shall be removed for inspection, repacking, and refurbishing as required once per refueling cycle.

These fire hose stations shall be tested for flow and the fire hoses hydrostatically tested once every 3 years.

Basis for Specification SR 5.10.8

These checks of the fire water hose system will demonstrate the system's ability to operate if required.

Specification SR 5.10.9 - Yard Fire Hydrants and Hydrant Hose Houses, Surveillance Requirement

Each of the yard fire hydrants and associated hydrant hose houses listed in LCO 4.10.8 shall be verified operable as follows:

a) Monthly by visual inspection of the hydrant hose house to assure all required equipment is at the hose house.

b) Semi-annually (once during March, April, or May, and once during September, October, or November) by visually inspecting each yard fire hydrant and verifying that the hydrant barrel is dry and that the hydrant is not damaged.

c) Annually by conducting a hose hydrostatic test at a pressure at least 50 psig greater than the maximum pressure available at any yard fire hydrant and by replacement of all degraded gaskets in couplings.

Basis for Specification SR 5.10.9

Inspection and testing at the specified intervals is sufficient to ensure operability of the hydrants and hydrant hose houses when required.

Each fuel element is a hexagonal right prism with nominal dimensions of 14.2 inches across the flats by 31.2 inches high. The fuel beds and coolant channels are distributed on a triangular array of about 3/4 inch Pitch spacing with an ideal ratio of two fuel beds for each coolant channel. The bottom of the fuel beds in the bottom fuel element of the control rod fuel column does not exceed a length of 23.1 inches from the top face of the fuel element.

Fuel

The fuel consists of fissile uranium highly enriched (93.15%) in ^{235}U and fertile thorium. The initial fuel loading is about 773 Kg of uranium and 16,000 Kg of thorium. The initial core is loaded with 13 fuel compositions whose distribution within the core is designed to mock up the fuel content of the equilibrium cycle refueling regions and to shape the radial and axial power distribution. Fuel is designed for up to a six year life. About one-sixth of the core will be replaced at each refueling interval. The fuel loading in a reload segment will be about 200 Kg of uranium and 2300 Kg of thorium.

All uranium and thorium in the reference fuel elements is in the form of heavy metal carbide and pyrocarbon, referred to as coated fuel particles. The coatings form the primary fission product barrier. The coated fuel particles consist of two general types, fissile particles ($TH:UC_2$) and fertile ($TH\ C_2$) particles. The fissile particles shall contain thorium and uranium in a weight ratio of about 3.6 to 1 (+1.2, - 0.2) of thorium to uranium. The fertile particles shall contain only thorium.

7.1 ORGANIZATION, REVIEW AND AUDIT-ADMINISTRATIVE CONTROLS

Applicability

Applies to the lines of authority and responsibility for the operational safety of the facility, and the organization for periodic review and audit of facility operation.

Objectives

To define the principal lines of authority and responsibility for providing continuing review, evaluation and improvement of the plant operational safety.

Specification AC 7.1.1 - Organization, Administrative Controls

The organization and lines of responsibility which govern plant operation shall be as follows:

a. The Operations Manager is directly responsible for overall facility operation and shall delegate in writing this responsibility during his absence.

b. In all matters concerning the Plant Operations Review Committee (PORC), the Administrative Services Manager will report to the Operations Manager.

c. In all matters pertaining to operation and maintenance of the plant and to these Technical Specifications, the Operations Manager shall report to, and be directly responsible to, the Manager, Nuclear Production. The administrative and departmental management organizations are shown in Figures 7.1-1 and 7.1-2.

d. Organization for conduct of operations of the plant is shown in Figure 7.1-3.

1. A licensed senior operator shall be present on site at all times when there is fuel in the reactor.
2. A licensed operator must be in the control room at all times when fuel is in the reactor. During reactor startup, shutdown, and recovery from reactor trip, two licensed operators must be in the control room.
3. ALL CORE ALTERATIONS after the initial fuel loading shall be directly supervised by either a licensed Senior Reactor Operator or Senior Reactor Operator limited to Fuel Handling who has no other concurrent responsibilities during this operation.
4. An operator or technician qualified in radiation protection procedures shall be present at the facility at all times that there is fuel on site.
5. A site Fire Brigade of at least 5 members shall be maintained on site at all times#. The Fire Brigade shall not include (3) members of the minimum shift crew necessary for safe shutdown of the unit and any personnel required for other essential functions during a fire emergency.

#Fire Brigade composition may be less than the minimum requirements for a period of time not to exceed 2 hours in order to accomodate unexpected absence of Fire Brigade members provided immediate action is taken to restore the Fire Brigade to within the minimum requirements.

Upon commencement of commercial operation the staffing of the plant shall be in accordance with American National Standards Institute N18.1-1971, "Selection and Training of Personnel for Nuclear Power Plants"

Each member of the facility staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971 for comparable position, except for the Health Physics Supervisor who shall meet or exceed the qualifications of Regulatory Guide 1.8, September, 1975.

A retraining and replacement training program for the facility staff shall be maintained under the direction of the Training Supervisor and shall meet or exceed the requirements and recommendations of Section 5.5 of ANSI N18.1-1971 and Appendix "A" of 10CFR Part 55. Compliance with Section 5.5 of ANSI N18.1-1971 shall be achieved no later than six months following commencement of commercial operation.

A training program for the Fire Brigade shall be maintained under the direction of the Training Supervisor and shall meet or exceed the requirements of Section 27 of the NFPA Code-1975, except for Fire Brigade training sessions which shall be held at least once per 92 days.

Specification AC 7.1.2 - Plant Operations Review Committee (PORC), Administrative Controls

The organization, responsibilities, and authority of the PORC shall be as follows:

a. Membership

The Plant Operations Review Committee shall be composed of the following:

Chairman: Administrative Services Manager

Operations Manager

Superintendent Operations

Health Physics Supervisor

Results Engineering Supervisor

Reactor Engineer

Technical Services Supervisor

Shift Supervisor

Superintendent Maintenance

Training Supervisor

Scheduling Supervisor

b. Alternates

Alternate members shall be appointed in writing by the PORC Chairman to serve in the absence of a member; however, no more than two alternates shall participate in PORC activities at any one time.

c. Meeting Frequency

The PORC shall meet at least once per calendar month and as convened by the Chairman.

d. Quorum

A quorum shall consist of the Chairman or alternate Chairman, and four members including alternates.

e. Responsibilities

The PORC shall be responsible for:

1. Review of all procedures required by Technical Specification 7.4(a), (b) and (c) and changes thereto, and any other proposed procedures or changes to approved procedures as determined by the Operations Manager or Administrative Services Manager to affect nuclear safety.
2. Review of all proposed tests and experiments that affect nuclear safety.
3. Review of all proposed changes to the Technical Specifications.
4. Review of all proposed changes or modifications to plant systems or equipment that affect nuclear safety.
5. Investigation of all violations of the Technical Specifications including the preparation and forwarding of reports covering the evaluation and recommendations to prevent recurrence to

the Manager, Nuclear Production and to the Chairman of the Nuclear Facility Safety Committee.

6. Review of events requiring 24-hour notification to the Commission.

7. Review of facility operations to detect potential nuclear safety hazards.

8. Performance of special reviews, investigations and reports thereon as requested by the Chairman of the Nuclear Facility Safety Committee.

9. Review of the Plant Security Plan and implementing procedures and submittal of recommended changes to the Chairman of the Fort St. Vrain Security Committee.

f. Authority

The PORC shall:

1. Function to advise the Operations Manager on all matters that affect nuclear safety.

2. Recommend to the Operations Manager, in writing, approval or disapproval of items considered under e.1. through 4. above.

3. Render determinations in writing with regard to whether or not each item considered under e.1. through 5. above constitutes an unreviewed safety question.

4. Provide immediate written notification to the Manager, Nuclear Production and the Chairman of NFSC of disagreement between the

PORC and the Operations Manager; however, the Operations Manager shall have responsibility for resolution of such disagreements pursuant to 1. above.

g. Records

The PORC shall maintain written minutes of each meeting and copies shall be provided to the Manager, Nuclear Production and Chairman of the Fort St. Vrain Nuclear Facility Safety Committee.

Specification AC 7.1.3 - Nuclear Facility Safety Committee (NFSC), Administrative Controls

The organization, responsibilities, and authority of the NFSC shall be as follows:

a. Function

The Nuclear Facility Safety Committee shall function to provide independent review and audit of designated activities in the areas of:

1. Nuclear Power Plant Operations
2. Nuclear Engineering
3. Chemistry and Radiochemistry
4. Metallurgy
5. Instrumentation and Control
6. Radiological Safety
7. Mechanical and Electrical Engineering
8. Quality Assurance Practices
9. (Other appropriate fields associated with the unique characteristics of the nuclear power plant.)

b. Membership

The NFSC shall be composed of the following:

Chairman: Vice President Production

Nuclear Project Manager

Manager of Safety and Security

Quality Assurance Manager

Manager Nuclear Production

Consultants, as required and appointed by the Chairman

c. Alternates

Alternate members shall be appointed in writing by the Chairman; however, no more than two alternates shall participate in NFSC activities at any one time.

d. Consultants

Consultants shall be utilized as determined by the Chairman, NFSC, to provide expert advice to the NFSC.

e. Meeting Frequency

The NFSC shall meet at least once per calendar quarter during the initial year of facility operation following fuel loading and at least once per six months thereafter.

f. Quorum

A quorum of the NFSC shall consist of the Chairman or his designated alternate and a majority of the NFSC members including alternates.

(h) Any indication that there may be a deficiency in some aspect of design or operation of structures, systems, or components, that affect nuclear safety.

(i) Reports and meeting minutes of the PORC.

2. Audits of facility activities shall be performed under the cognizance of the Nuclear Facility Safety Committee. These audits shall encompass:

(a) The conformance of facility operation to all provisions contained within the Technical Specifications and applicable license conditions at least once per year.

(b) The performance, training, and qualifications, of the facility staff at least once per year.

(c) The results of actions taken to correct deficiencies occurring in facility equipment, structures, systems, or method of operation that affect nuclear safety at least once per six months.

(d) The performance of activities required by the Quality Assurance Program to meet the criteria of Appendix "B", 10 CFR 50, at least once per two years.

(e) The facility Emergency Plan and implementing procedures at least once per two years.

(f) The facility Security Plan and implementing procedures at least once per two years.

(g) Any other area of facility operation considered appropriate by the NFSC or the appropriate Vice President.

(h) An audit of the Fire Protection Program including a fire protection and loss prevention inspection shall be performed annually, utilizing qualified off site licensee personnel, an outside fire protection firm, or an outside qualified fire consultant. This audit must be performed by an outside qualified fire consultant at invervals no greater than 3 years.

Authority

The NFSC shall report to a advise the appropriate Vice President on those areas of responsibility specified in g. above.

Records

Records of NFSC activities shall be prepared, approved and distributed as indicated below:

1. Minutes of each NFSC meeting shall be prepared, approved and forwarded to the appropriate Vice President within 30 days following each meeting.
2. Reports of reviews encompassed by Section g. 1. above shall be prepared, approved and forwarded to the appropriate Vice President within 30 days following completion of the review.
3. Audit reports encompassed by Section g. 2. above shall be forwarded to the appropriate Vice President and to the management positions responsible for the areas audited within 30 days after completion of the audit.

PUBLIC SERVICE COMPANY OF COLORADO

EXECUTIVE ORGANIZATION CHART

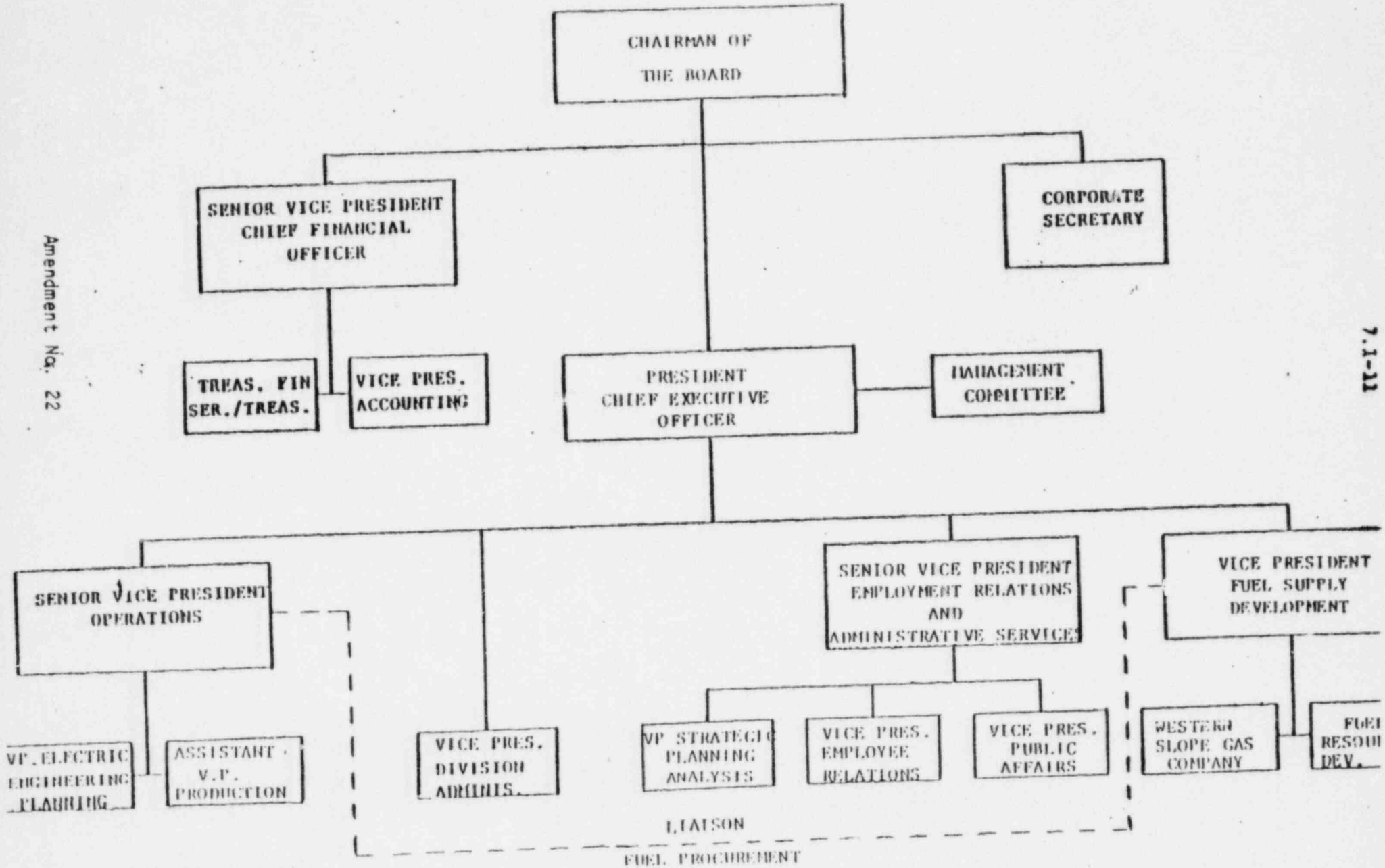

Fig. 7.1-1

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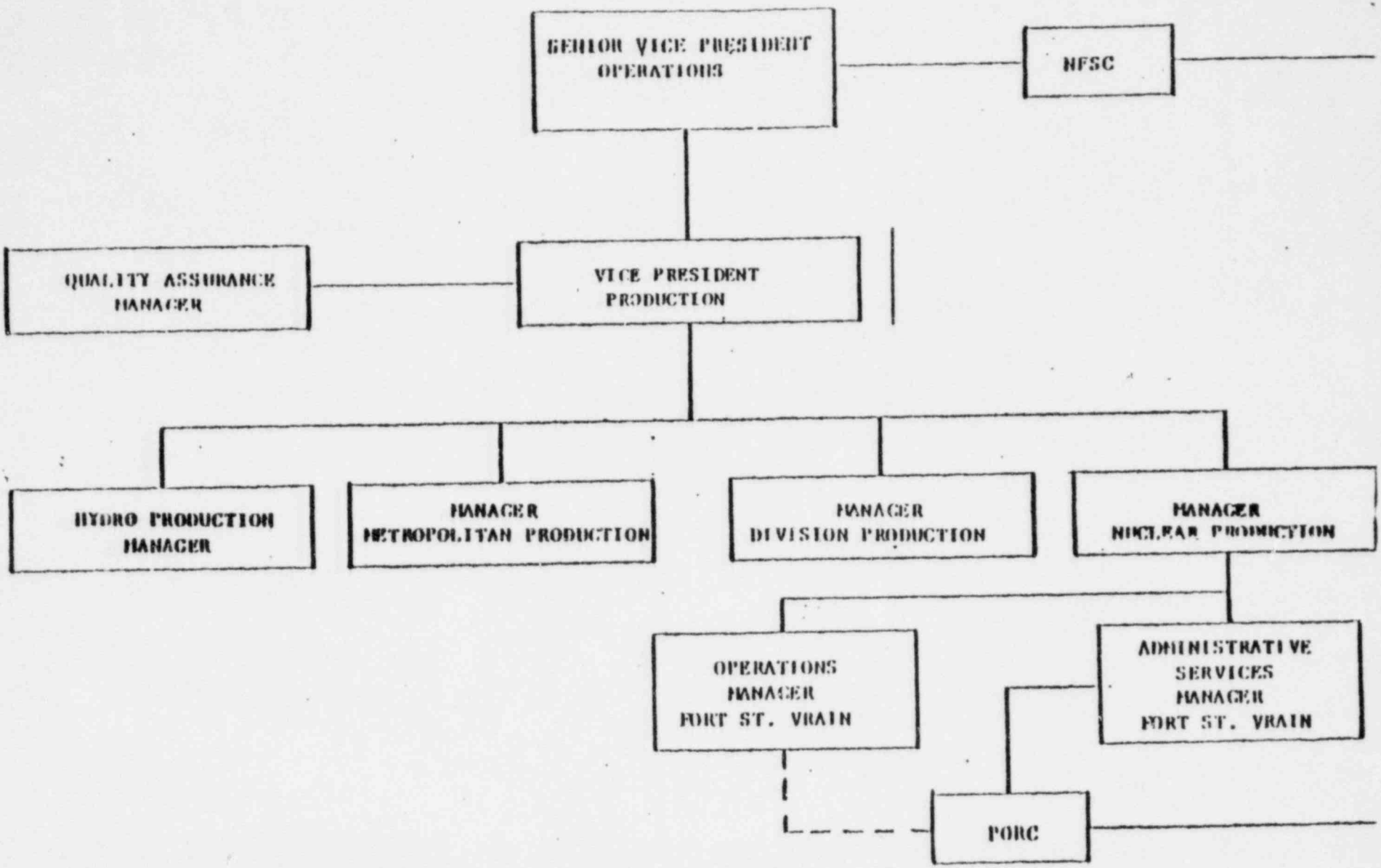
7.1-11

MANAGEMENT ORGANIZATION CHART



NFSC – Nuclear Facility Safety Committee
PORC – Plant Operations Review Committee
Chaired by
Administrative Services Manager;
PORC reports administratively
to Operations Manager

Fig. 7.1-2

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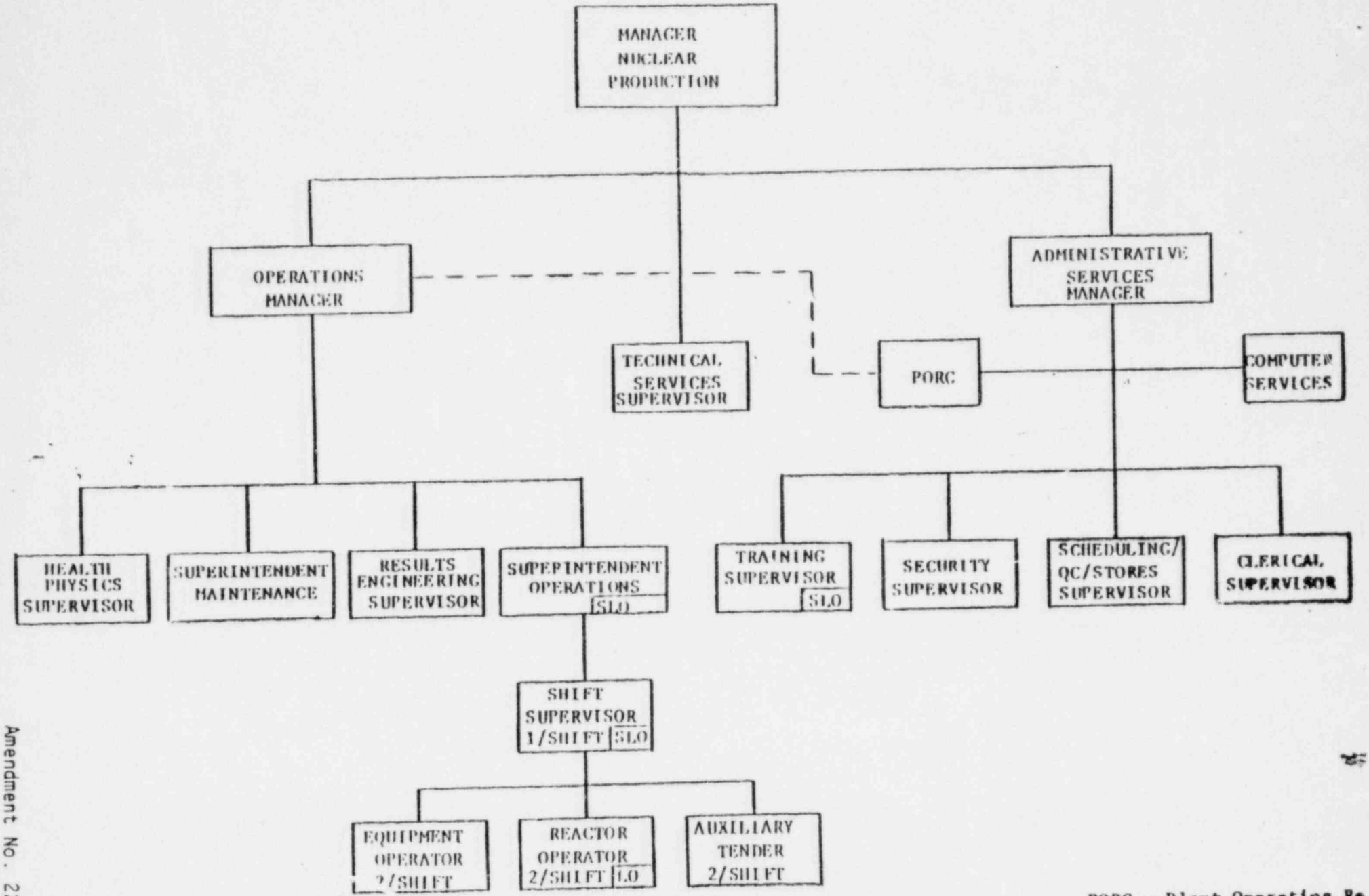
FORT ST. VRAIN NUCLEAR GENERATING STATION

CONDUCT OF OPERATIONS CHART



PORC - Plant Operating Re
Committee

SLO - Senior Licensed Ope

LO - Licensed Operator

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7.2 SAFETY LIMITS, ADMINISTRATIVE CONTROLS

Applicability

Applies to the administrative procedures to be followed in the event that a safety limit is exceeded.

Objectives

To define the administrative procedures which will be followed in the event that a safety limit is exceeded.

Specification AC 7.2 - Action to be Taken if a Safety Limit is Exceeded, Administrative Controls

If a safety limit is exceeded, as defined in Specification SL 3.1 and 3.2, the following action shall be taken:

a. The reactor will be shut down immediately and reactor operations shall not be resumed until approval is received from the NRC.

b. The safety limit violation shall be reported to the Commission, the Manager, Nuclear Production and to the Chairman, NFSC immediately.

c. A Safety Limit Violation Report shall be prepared. The report shall be reviewed by the PORC. This report shall describe (1) applicable circumstances preceding the violation, (2) effects of the violation upon facility components, systems or structures, and (3) corrective action taken to prevent recurrence.

d. The Safety Limit Violation Report shall be submitted to the Commission, the Chairman, NFSC and the Manager, Nuclear Production within ten days of the violation.

7.4 PROCEDURES - ADMINISTRATIVE CONTROLS

Applicability

Applies to administrative procedures which will govern plant operations.

Objective

To ensure that written procedures will be maintained to define requirements for plant operation.

Specification AC 7.4 - Procedures, Administrative Controls

a. Written procedures shall be established, implemented and maintained covering the activities referenced below:

   1. The applicable procedures recommended in Appendix A of Regulatory Guide 1.33, November, 1972.
   2. Refueling operations.
   3. Surveillance and test activities of safety-related equipment.
   4. Security Plan implementation.
   5. Emergency Plan implementation.

b. Procedures and administrative policies of a. above, and changes thereto, shall be reviewed by the PORC and approved by the appropriate Manager prior to implementation and reviewed periodically as set forth in Administrative Procedures.

   Security Plan procedures, and changes thereto, shall be reviewed by the Plant Operations Review Committee and approved by the designated Plant Security Officer prior to implementation.

   Security Plan procedures and changes thereto, shall be reviewed by the Fort St. Vrain Security Committee.

c. Temporary changes to procedures of a. above may be made provided:

1. The intent of the original procedure is not altered.
2. The change is approved by two members of the plant management staff, at least one of whom holds a Senior Reactor Operator's license.
3. The change is documented, reviewed by the PORC and approved by the appropriate manager within 14 days of implementation.

d. Procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and shall be approved, maintained, and adhered to for all operations involving personnel radiation exposure.

Pursuant to 10 CFR 20.103(c)(1) and (3), allowance shall be made for the use of respiratory protective equipment in restricted areas where individuals are exposed to concentrations in excess of the limits specified in Appendix B, Table I, Column 1, of 10 CFR 20, subject to the following conditions and limitations:

1. The limits provided in Section 20.103(a) and (b) shall not be exceeded.
2. If the radioactive material is of such form that intake through the skin or other additional route is likely, individual exposures to radioactive material shall be controlled so that the radioactive content of any critical organ from all routes of intake averaged over 7 consecutive days does not exceed that which would result