ATTACHMENT B TO BECo LETTER 91-012

Revised Technical Specification Pages

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
3.7.A Primary Containment (Con't)	4.7.A Primary Containment (Con't)
Primary Containment Integrity	Primary Containment Integrity
2.a Primary containment integrity shall be maintained at all times when the reactor is critical or when the reactor water temperature is above 212°F and fuel is in the reactor vessel except while performing "open vessel" physics test at power levels not to exceed 5 Mw(t).	2.a The primary containment integrity shall be demonstrated by performing Primary Containment Leak Tests in accordance with 10CFR50 Appendix J, with exemptions as approved by the NRC and exceptions as follows:
Primary containment integrity means that the drywell and pressure suppression chamber are intact and that all of the following conditions are satisfied:	(1) The main steam line isolation valves shall be tested at a pressure $\geq$23 psig, and normalized to a value equivalent to 45 psig each operating cycle.
(1) All manual containment isolation valves on lines connected to the reactor coolant system or containment which are not required to be open during accident conditions are closed.	(2) Personnel air lock door seals shall be tested at a pressure $\geq$10 psig each operating cycle. Results shall be normalized to a value equivalent to 45 psig.
(2) At least one door in each airlock is closed and sealed.	If the total leakage rates listed below are exceeded, repairs and retests shall be performed to correct the conditions.
(3) All blind flanges and manways are closed.	(1) All double-gasketed seals: 10% L_t (x)
(4) All automatic primary containment isolation valves and all instrument line flow check valves are operable except as specified in 3.7.A.2.b.	(2) All testable penetrations and isolation valves: 60% L_a (x)
(5) All containment isolation check valves are operable or at least one containment isolation valve in each line having an inoperable valve is secured in the isolated position.	(3) Any one penetration or isolation valve except main steam line isolation valves: 5% L_t (x)
	(4) Any one main steam line isolation valve: 11.5 scf/hr @23 psig.
	where x = 45 psig L_t = .75 L_a L_a = 1.0% by weight of the contained air @ 45 psig for 24 hrs.

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
3.7.A Primary Containment (Con't)	4.7.A Primary Containment (Con't)
Primary Containment Isolation Valves	Primary Containment Isolation Valves
2.b. In the event any automatic Primary Containment Isolation Valve becomes inoperable, at least one containment isolation valve in each line having an inoperable valve shall be deactivated in the isolated condition. (This requirement may be satisfied by deactivating the inoperable valve in the isolated condition. Deactivation means to electrically or pneumatically disarm, or otherwise secure the valve.)*	2.b.1 The primary containment isolation valves surveillance shall be performed as follows: a. At least once per operating cycle the operable primary containment isolation valves that are power operated and automatically initiated shall be tested for simulated automatic initiation and closure times. b. At least once per quarter: 1. All normally open power operated primary containment isolation valves (except for the main steam line power operated isolation valves) shall be fully closed and reopened. 2. Trip the main steam isolation valves individually and verify closure time. c. At least twice per week the main steam line power operated isolation valves shall be exercised by partial closure and subsequent reopening. d. At least once per operating cycle the operability of the reactor coolant system instrument line flow check valves shall be verified.
*Isolation valves closed to satisfy these requirements may be reopened on an intermittent basis under ORC approved administrative controls.	2.b.2 Whenever a primary containment automatic isolation valve, is inoperable, the position of the isolated valve in each line having an inoperable valve shall be recorded daily.

Pages 160 through 164 are deleted

BASES:

3.7.A & 4.7.A Primary Containment

The primary containment leak rate test frequency is based on maintaining adequate assurance that the leak rate remains within the specification. The leak rate test frequency is in accordance with 10CFR50 App. J.

The penetration and air purge piping leakage test frequency, along with the containment leak rate tests, is adequate to allow detection of leakage trends. Whenever a bolted double-gasketed penetration is broken and remade, the space between the gaskets is pressurized to determine that the seals are performing properly. It is expected that the majority of the leakage from valves, penetrations and seals would be into the reactor building. However, it is possible that leakage into other parts of the facility could occur. Such leakage paths that may affect significantly the consequences of accidents are to be minimized. The personnel air lock is tested at 10 psig, because the inboard door is not designed to shut in the opposite direction.

Primary Containment Isolation Valves

Double isolation valves are provided on lines penetrating the primary containment and open to the free space of the containment. Closure of one of the valves in each line would be sufficient to maintain the integrity of the pressure suppression system. Automatic initiation is required to minimize the potential leakage paths from the containment in the event of a loss of coolant accident.

Group 1 - process lines are isolated by reactor vessel low-low water level in order to allow for removal of decay heat subsequent to a scram, yet isolate in time for proper operation of the core standby cooling systems. The valves in group 1 are also closed when process instrumentation detects excessive main steam line flow, high radiation,, low pressure, main steam space high temperature, or reactor vessel high water level.

Group 2 - isolation valves are closed by reactor vessel low water level or high drywell pressure. The group 2 isolation signal also "isolates" the reactor building and starts the standby gas treatment system. It is not desirable to actuate the group 2 isolation signal by a transient or spurious signal.

Group 3 - isolation valves can only be opened when the reactor is at low pressure and the core standby cooling systems are not required. Also, since the reactor vessel could potentially be drained through these process lines, these valves are closed by low water level.

Group 4 and 5 - process lines are designed to remain operable and mitigate the consequences of an accident which results in the isolation of other process lines. The signals which initiate isolation of group 4 and 5 process lines are therefore indicative of a condition which would render them inoperable.

ATTACHMENT C TO BECo LETTER 91-012

Annotated Current Technical Specification Pages

Attachment C

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
3.7.A Primary Containment (Con't)	4.7.A Primary Containment (Con't)
Primary Containment Integrity	Primary Containment Integrity
2.a Primary containment integrity shall be maintained at all times when the reactor is critical or when the reactor water temperature is above 212°F and fuel is in the reactor vessel except while performing "open vessel" physics test at power levels not to exceed 5 Mw(t). Primary containment integrity means that the drywell and pressure suppression chamber are intact and that all of the following conditions are satisfied: (1) All manual containment isolation valves on lines connected to the reactor coolant system or containment which are not required to be open during accident conditions are closed. (2) At least one door in each airlock is closed and sealed. (3) All blind flanges and manways are closed. (4) All automatic primary containment isolation valves and all instrument line flow check valves are operable except as specified in 3.7.A.2.b. (5) All containment isolation check valves are operable or at least one containment isolation valve in each line having an inoperable valve is secured in the isolated position.	2.a The primary containment integrity shall be demonstrated by performing Primary Containment Leak Tests in accordance with 10 CFR 50 Appendix J, ~~as amended thru Sept. 22, 1980~~, with exemptions as approved by the NRC and exceptions as follows: (1) The main steam line isolation valves shall be tested at a pressure ≥23 psig, and normalized to a value equivalent to 45 psig each operating cycle. (2) Personnel air lock door seals shall be tested at a pressure ≥10 psig each operating cycle. Results shall be normalized to a value equivalent to 45 psig. If the total leakage rates listed below are exceeded, repairs and retests shall be performed to correct the conditions. (1) All double-gasketed seals: 10% L_t (x) (2) All testable penetrations and isolation valves: 60% L_a (x) (3) Any one penetration or isolation valve except main steam line isolation valves: 5% L_t (x) (4) Any one main steam line isolation valve: 11.5 scf/hr @23 psig. where x = 45 psig L_t = .75 L_a L_a = 1.0% by weight of the contained air @ 45 psig for 24 hrs.

Attachment 2

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
3.7.A Primary Containment (Con't)	4.7.A Primary Containment (Con't)
Primary Containment Isolation Valves	Primary Containment Isolation Valves
2.b. In the event any automatic Primary Containment Isolation Valve ~~that receives an automatic isolation signal listed in Table 3.7-1~~ becomes inoperable, at least one containment isolation valve in each line having an inoperable valve shall be deactivated in the isolated condition. (This requirement may be satisfied by deactivating the inoperable valve in the isolated condition. Deactivation means to electrically or pneumatically disarm, or otherwise secure the valve.)*	2.b.1 The primary containment isolation valves surveillance shall be performed as follows: a. At least once per primary containment operating cycle the operable isolation valves that are power operated and automatically initiated shall be tested for simulated automatic initiation and closure times. b. At least once per quarter: 1. All normally primary containment open power operated isolation valves (except for the main steam line power operated isolation valves) shall be fully closed and reopened. 2. Trip the main steam isolation valves individually and verify closure time. c. At least twice per week the main steam line power operated isolation valves shall be exercised by partial closure and subsequent reopening. d. At least once per operating cycle the operability of the reactor coolant system instrument line flow check valves shall be verified.
*Isolation valves closed to satisfy these requirements may be reopened on an intermittent basis under ORC approved administrative controls.	2.b.2 Whenever a primary containment automatic isolation valve, ~~that receives an automatic isolation signal listed in Table 3.7-1~~ is inoperable, the position of the isolated valve in each line having an inoperable valve shall be recorded daily.

Attachment C

Pages 160 through 164
are deleted

TABLE 3.7-1
PRIMARY CONTAINMENT AND REACTOR VESSEL ISOLATION VALVES

GROUP	POWER OPERATED VALVE #	SYSTEM & DESCRIPTION	IPC/OPC	PENETRATION NUMBER	MAXIMUM OPERATING TIME (SEC)	NORMAL POSITION	ISOLATION POSITION
1	AO-203-1A	Main Steam Line "A" Isolation Valve	IPC	X-7A	3 ≤t≤ 5	Open	Closed
1	AO-203-2A	Main Steam Line "A" Isolation Valve	OPC	X-7A	3 ≤t≤ 5	Open	Closed
1	AO-203-1B	Main Steam Line "B" Isolation Valve	IPC	X-7B	3 ≤t≤ 5	Open	Closed
1	AO-203-2B	Main Steam Line "B" Isolation Valve	OPC	X-7B	3 ≤t≤ 5	Open	Closed
1	AO-203-1C	Main Steam Line "C" Isolation Valve	IPC	X-7C	3 ≤t≤ 5	Open	Closed
1	AO-203-2C	Main Steam Line "C" Isolation Valve	OPC	X-7C	3 ≤t≤ 5	Open	Closed
1	AO-203-1D	Main Steam Line "D" Isolation Valve	IPC	X-7D	3 ≤t≤ 5	Open	Closed
1	AO-203-2D	Main Steam Line "D" Isolation Valve	OPC	X-7D	3 ≤t≤ 5	Open	Closed
1	MO-220-1	Main Steam Drain Isolation Valve	IPC	X-8	30	Closed	Closed
1	MO-220-2	Main Steam Drain Isolation Valve	OPC	X-8	30	Closed	Closed
11	AO-220-44	Reactor Water Sample Line Valve	IPC	X-41A	10	Open	Closed
11	AO-220-45	Reactor Water Sample Line Valve	OPC	X-41A	10	Open	Closed
23,5	AO-5033A	Drywell Purge/Makeup	OPC	X-26	10	Closed	Closed
25	AO-5033B	Drywell Purge/Makeup	OPC	X-26	10	Closed	Closed
23,5	AO-5033C	Torus Makeup	OPC	X-205	10	Closed	Closed
25	AO-5035A	Drywell Purge/Makeup	OPC	X-26	5	Closed	Closed
25	AO-5035B	Drywell Purge/Makeup	OPC	X-26	5	Closed	Closed
25	AO-5036A	Torus Purge Inlet	OPC	X-205	5	Closed	Closed
25	AO-5036B	Torus Purge Inlet	OPC	X-205	5	Closed	Closed
23,5	AO-5041A	Torus Exhaust Bypass	OPC	X-227	10	Closed	Closed
23,5	AO-5041B	Torus Exhaust Bypass	OPC	X-227	10	Closed	Closed
25	AO-5042A	Torus Main Exhaust	OPC	X-227	5	Closed	Closed
25	AO-5042B	Torus Main Exhaust	OPC	X-227	5	Closed	Closed
23,5	AO-5043A	Drywell 2" Exhaust Bypass	OPC	X-25	10	Closed	Closed
23,5	AO-5043B	Drywell 2" Exhaust Bypass	OPC	X-25	10	Closed	Closed
25	AO-5044A	Drywell Purge Exhaust	OPC	X-25	5	Closed	Closed
25	AO-5044B	Drywell Purge Exhaust	OPC	X-25	5	Closed	Closed
24	A	TIP Ball - Ball Solenoid Valve	OPC	X-35	5	Closed	Closed
24	B	TIP Ball - Ball Solenoid Valve	OPC	X-35	5	Closed	Closed
24	C	TIP Ball - Ball Solenoid Valve	OPC	X-35	5	Closed	Closed
24	D	TIP Ball - Ball Solenoid Valve	OPC	X-35	5	Closed	Closed

Delete

Attachment C

TABLE 3.7-1 (con't)
PRIMARY CONTAINMENT AND REACTOR VESSEL ISOLATION VALVES

GROUP	POWER OPERATED VALVE #	SYSTEM & DESCRIPTION	IPC/OPC	PENETRATION NUMBER	MAXIMUM OPERATING TIME (SEC)	NORMAL POSITION	ISOLATION POSITION
26	SV-5065-11A	H_2/O_2 Analyzer Supply	OPC	X-228J	2	Closed	Closed
26	SV-5065-13B	H_2/O_2 Analyzer and Leak Detection Supply	OPC	X-50A-d	2	Open	Closed
26	SV-5065-14A	H_2/O_2 Analyzer and Leak Detection Supply	OPC	X-106A-b	2	Open	Closed
26	SV-5065-15B	H_2/O_2 Analyzer Supply	OPC	X-228C	2	Closed	Closed
26	SV-5065-18A	H_2/O_2 Analyzer Supply	OPC	X-228J	2	Closed	Closed
26	SV-5065-20B	H_2/O_2 Analyzer and Leak Detection Supply	OPC	X-50A-d	2	Open	Closed
26	SV-5065-21A	H_2/O_2 Analyzer and Leak Detection Supply	OPC	X-106A-b	2	Open	Closed
26	SV-5065-22B	H_2/O_2 Analyzer Sample	OPC	X-228C	2	Closed	Closed
26	SV-5065-24A	H_2/O_2 and PASS Sample Return	OPC	X-46F	2	Oper	Closed
26	SV-5065-25B	H_2/O_2 Analyzer Return	OPC	X-228K	2	Closed	Closed
26	SV-5065-26A	H_2/O_2 and PASS Sample Return	OPC	X-46F	2	Open	Closed
26	SV-5065-27B	H_2/O_2 Analyzer Return	OPC	X-228K	2	Closed	Closed
26	SV-5065-31B	H_2/O_2 Analyzer Supply	OPC	X-15E	2	Closed	Closed
26	SV-5065-33A	H_2/O_2 Analyzer and PASS Supply	OPC	X-29E	2	Open	Closed
26	SV-5065-35B	H_2/O_2 Analyzer Supply	OPC	X-15E	2	Closed	Closed
26	SV-5065-37A	H_2/O_2 Analyzer and PASS Supply	OPC	X-29E	2	Open	Closed
26	SV-5065-63	PASS Reactor Sample Jet Pump #15	OPC	X-40A-a	2	Closed	Closed
26	SV-5065-64	PASS Reactor Sample Jet Pump #15	OPC	X-40A-a	2	Closed	Closed
26	SV-5065-71	PASS Liquid Sample Return	OPC	X-228H	2	Closed	Closed
26	SV-5065-72	PASS Liquid Sample Return	OPC	X-228H	2	Closed	Closed
26	SV-5065-77	PASS Liquid Sample Return	OPC	X-228G	2	Closed	Closed
26	SV-5065-78	PASS Liquid Sample Return	OPC	X-228G	2	Closed	Closed
26	SV-5065-85	PASS Reactor Sample Jet Pump #5	OPC	X-40D-c	2	Closed	Closed
26	SV-5065-86	PASS Reactor Sample Jet Pump #5	OPC	X-40D-c	2	Closed	Closed
2	CV-5065-91	Leak Detection and O_2 Analyzer Return	OPC	X-32A	5	Open	Closed
2	CV-5065-92	Leak Detection and O_2 Analyzer Return	OPC	X-32A	5	Open	Closed
2	AO-7011A	R/W Collection D/W Equip. Sump	OPC	X-19	20	Closed	Closed
2	AO-7011B	R/W Collection D/W Equip. Sump	OPC	X-19	20	Closed	Closed
2	AO-7017A	R/W Collection D/W Floor Sump	OPC	X-18	20	Closed	Closed
2	AO-7017B	R/W Collection D/W Floor Sump	OPC	X-18	20	Closed	Closed
2	MO-1001-21	RHR Discharge to Radwaste	OPC	None	20	Closed	Closed
2	MO-1001-32	RHR Discharge to Radwaste	OPC	None	20	Closed	Closed

delete

Attachment 5

TABLE 3.7-1 (con't)
PRIMARY CONTAINMENT AND REACTOR VESSEL ISOLATION VALVES

GROUP	POWER OPERATED VALVE #	SYSTEM & DESCRIPTION	IPC/OPC	PENETRATION NUMBER	MAXIMUM OPERATING TIME (SEC)	NORMAL POSITION	ISOLATION POSITION
3[2]	MO-1001-29A	RHR Injection "A" Loop	OPC	X-51A	30	Closed	Closed
3[2]	MO-1001-29B	RHR Injection "B" Loop	OPC	X-51B	30	Closed	Closed
3	MO-1001-47	RHR S/D Cooling Suction Valve	OPC	X-12	30	Closed	Closed
3	MO-1001-50	RHR S/D Cooling Suction Valve	IPC	X-12	30	Closed	Closed
3	MO-1001-60	Reactor Vessel Head Spray	OPC	X-17	30	Closed	Closed
3	MO-1001-63	Reactor Vessel Head Spray	IPC	X-17	30	Closed	Closed
4	MO-2301-4	HPCI Steam to Turbine	IPC	X-52	25	Open	Closed
4	MO-2301-5	HPCI Steam to Turbine	OPC	X-52	25	Open	Closed
5	MO-1301-16	RCIC Steam to Turbine	IPC	X-53	20	Open	Closed
5	MO-1301-17	RCIC Steam to Turbine	OPC	X-53	20	Open	Closed
6	MO-1201-2	RWCU Suction	IPC	X-14	25	Open	Closed
6	MO-1201-5	RWCU Suction	OPC	X-14	25	Open	Closed
6	MO-1201-80	RWCU Return	OPC	X-9A	30	Open	Closed
7	MO-2301-33	HPCI Vacuum Breaker Isolation	OPC	X-219	30	Open	Closed
7	MO-2301-34	HPCI Vacuum Breaker Isolation	OPC	X-219	30	Open	Closed
	6-58A	Feedwater Line A Check Valve	IPC	X-9A	-	Open	Process
	6-58B	Feedwater Line B Check Valve	IPC	X-9B	-	Open	Process
	6-62A	Feedwater Line A Check Valve	OPC	X-9A	-	Open	Process
	6-62B	Feedwater Line B Check Valve	OPC	X-9B	-	Open	Process
	1101-15	SBLC Injection Check Valve	IPC	X-42	-	Closed	Process
	1101-16	SBLC Injection Check Valve	OPC	X-42	-	Closed	Process

delete

Attachment C

NOTES FOR TABLE 3.7-1

Key: IPC - Inside Primary Containment
OPC - Outside Primary Containment

ISOLATION GROUPINGS

Group 1: The valves in this group are closed upon any one of the following conditions.

1. Reactor low-low water level
2. Main Steam Line high radiation
3. Main Steam Line high flow
4. Main Steam Line tunnel high temperature
5. Main Steam Line low pressure (in run mode only)
6. Reactor high water level (not in run mode, below 880 psig)

Group 2: The valves in this group are closed upon any one of the following conditions.

1. Reactor low water level
2. High drywell pressure

Group 3: The valves in this group are closed upon any one of the following conditions.

1. Reactor low water level
2. High reactor pressure
3. High drywell pressure

Group 4: The valves in this group are closed upon any one of the following conditions.

1. HPCI steam line high flow
2. HPCI steam line area high temperature
3. Low reactor pressure

Delete

Attachment C

NOTES FOR TABLE 3.7-1 (con't)

Group 5: The valves in this group are closed upon any one of the following conditions.

1. RCIC steam line high flow
2. RCIC steam line area high temperature
3. Low reactor pressure

Group 6: The valves in this group are closed upon any one of the following conditions.

1. Reactor low water level
2. Cleanup area high temperature
3. Cleanup inlet high flow

Group 7: The valves in this group are closed on the following conditions:

1. Reactor Low Pressure and High Drywell Pressure

delete

Attachment C

FOOTNOTES:

1 The Reactor Water Sample Line Isolation Valves initiate on a Group 1 or a Group 2 isolation signal.

2 MO-1001-29A&B Isolate on reactor low water level OR high drywell pressure if MO-1001-50 and MO-1001-47 are not fully closed AND reactor pressure not high (i.e., not >110 psig).

3 In addition to Group 2 isolation, these valves also receive a reactor low-low water level isolation which cannot be bypassed by utilizing the valves emergency open feature.

4 Reactor vessel low water level or high drywell pressure causes automatic withdrawal of TIP probe. When probe is withdrawn beyond these ball valves, these valves automatically close within 5 seconds.

5 In addition to Group 2 isolation, these valves also receive a Refueling Floor High Radiation isolation.

6 Isolation signals are overridden with the keylocked Control Switch in the "Override" position.

Attachment C

BASES:

3.7.A & 4.7.A Primary Containment

The primary containment leak rate test frequency is based on maintaining adequate assurance that the leak rate remains within the specification. The leak rate test frequency is in accordance with 10 CFR 50 App. J, ~~as amended through Sept. 22, 1980.~~

The penetration and air purge piping leakage test frequency, along with the containment leak rate tests, is adequate to allow detection of leakage trends. Whenever a bolted double-gasketed penetration is broken and remade, the space between the gaskets is pressurized to determine that the seals are performing properly. It is expected that the majority of the leakage from valves, penetrations and seals would be into the reactor building. However, it is possible that leakage into other parts of the facility could occur. Such leakage paths that may affect significantly the consequences of accidents are to be minimized. The personnel air lock is tested at 10 psig, because the inboard door is not designed to shut in the opposite direction.

Primary Containment Isolation Valves

Double isolation valves are provided on lines penetrating the primary containment and open to the free space of the containment. Closure of one of the valves in each line would be sufficient to maintain the integrity of the pressure suppression system. Automatic initiation is required to minimize the potential leakage paths from the containment in the event of a loss of coolant accident.

Group 1 - process lines are isolated by reactor vessel low-low water level in order to allow for removal of decay heat subsequent to a scram, yet isolate in time for proper operation of the core standby cooling systems. The valves in group 1 are also closed when process instrumentation detects excessive main steam line flow, high radiation,, low pressure, main steam space high temperature, or reactor vessel high water level.

Group 2 - isolation valves are closed by reactor vessel low water level or high drywell pressure. The group 2 isolation signal also "isolates" the reactor building and starts the standby gas treatment system. It is not desirable to actuate the group 2 isolation signal by a transient or spurious signal.

Group 3 - isolation valves can only be opened when the reactor is at low pressure and the core standby cooling systems are not required. Also, since the reactor vessel could potentially be drained through these process lines, these valves are closed by low water level.

Group 4 and 5 - process lines are designed to remain operable and mitigate the consequences of an accident which results in the isolation of other process lines. The signals which initiate isolation of group 4 and 5 process lines are therefore indicative of a condition which would render them inoperable.