Brunswick Nuclear Plant Initial Emergency Actions — EAL-1 MODES 1, 2 & 3

Columns: **GENERAL EMERGENCY** | **SITE AREA EMERGENCY** | **ALERT** | **UNUSUAL EVENT**

R — Abnorm. Rad Levels / Rad Effluent

1 Rad Effluent

RG1 Release of gaseous radioactivity resulting in offsite dose greater than 1,000 mrem TEDE or 5,000 mrem thyroid CDE
1 | 2 | 3 | 4 | 5 | DEF

RG1.1
In the absence of real-time dose assessment, reading on any Table R-1 effluent radiation monitor > column "GE" for ≥ 15 min. (Notes 1, 2, 3, 4)

RG1.2
Dose assessment using actual meteorology indicates doses > 1000 mrem TEDE or 5000 mrem thyroid CDE at or beyond the SITE BOUNDARY (Notes 3, 4)

RG1.3
Field survey results indicate **EITHER** of the following at or beyond the SITE BOUNDARY:
- Closed window dose rates > 1000 mR/hr expected to continue for ≥ 60 min.
- Analyses of field survey samples indicate thyroid CDE > 5000 mrem for 60 min. of inhalation.

(Notes 1, 2)

RS1 Release of gaseous radioactivity resulting in offsite dose greater than 100 mrem TEDE or 500 mrem thyroid CDE
1 | 2 | 3 | 4 | 5 | DEF

RS1.1
In the absence of real-time dose assessment, reading on any Table R-1 effluent radiation monitor > column "SAE" for ≥ 15 min. (Notes 1, 2, 3, 4)

RS1.2
Dose assessment using actual meteorology indicates doses > 100 mrem TEDE or 500 mrem thyroid CDE at or beyond the SITE BOUNDARY (Notes 3, 4)

RS1.3
Field survey results indicate **EITHER** of the following at or beyond the SITE BOUNDARY:
- Closed window dose rates > 100 mR/hr expected to continue for ≥ 60 min.
- Analyses of field survey samples indicate thyroid CDE > 500 mrem for 60 min. of inhalation.

(Notes 1, 2)

RA1 Release of gaseous or liquid radioactivity resulting in offsite dose greater than 10 mrem TEDE or 50 mrem thyroid CDE
1 | 2 | 3 | 4 | 5 | DEF

RA1.1
In the absence of real-time dose assessment, eading on any Table R-1 effluent radiation monitor > column "ALERT" for ≥ 15 min. (Notes 1, 2, 3, 4)

RA1.2
Dose assessment using actual meteorology indicates doses > 10 mrem TEDE or 50 mrem thyroid CDE at or beyond the SITE BOUNDARY (Notes 3, 4)

RA1.3
Analysis of a liquid effluent sample indicates a concentration or release rate that would result in doses > 10 mrem TEDE or 50 mrem thyroid CDE at or beyond the SITE BOUNDARY for 60 min. of exposure (Notes 1, 2)

RA1.4
Field survey results indicate **EITHER** of the following at or beyond the SITE BOUNDARY:
- Closed window dose rates > 10 mR/hr expected to continue for ≥ 60 min.
- Analyses of field survey samples indicate thyroid CDE > 50 mrem for 60 min. of inhalation.

(Notes 1, 2)

RU1 Release of gaseous or liquid radioactivity greater than 2 times the ODCM limits for 60 minutes or longer
1 | 2 | 3 | 4 | 5 | DEF

RU1.1
Reading on any Table R-1 effluent radiation monitor > column "UE" for ≥ 60 min. (Notes 1, 2, 3)

RU1.2
Sample analysis for a gaseous or liquid release indicates a concentration or release rate > 2 x ODCM limits for ≥ 60 min. (Notes 1, 2)

2 Irradiated Fuel Event

RG2 Spent fuel pool level cannot be restored to at least the top of the fuel racks for 60 minutes or longer
1 | 2 | 3 | 4 | 5 | DEF

RG2.1
Spent fuel pool level cannot be restored ≥ 95 ft. 3 in. ele. for > 60 min. (Note 1)

RS2 Spent fuel pool level at the top of the fuel racks
1 | 2 | 3 | 4 | 5 | DEF

RS2.1
Lowering of spent fuel pool level to ≤ 95 ft. 3 in. ele.

Table R-1 Effluent Monitor Classification Thresholds

	Release Point	Monitor	GE	SAE	Alert	UE
Gaseous	Main Stack Rad	D12-RM-23S	2.13E+09 µCi/sec	2.13E+08 µCi/sec	2.13E+07 µCi/sec	1.80E+06 µCi/sec
Gaseous	Reactor Bldg Vent Noble Gas	CAC-AQH-1264-3	-------	-------	-------	6.14E+04 cpm
Gaseous	Turbine Building Vent Rad	D12-RM-23	1.07E+08 µCi/sec	1.07E+07 µCi/sec	1.07E+06 µCi/sec	1.13E+04 µCi/sec
Liquid	Service Water Effluent Radioactivity	D12-RM-K605	-------	-------	-------	2 X hi alarm
Liquid	Radwaste Effluent Rad	D12-RM-K604	-------	-------	-------	2 X hi-hi alarm

RA2 Significant lowering of water level above, or damage to, irradiated fuel
1 | 2 | 3 | 4 | 5 | DEF

RA2.1
Uncovery of irradiated fuel in the REFUELING PATHWAY

RA2.2
Damage to irradiated fuel resulting in a release of radioactivity
AND
Any of the following radiation monitor indications:
- Reactor Bldg Vent Rad Monitor Channel A or B (> 3 mR/hr)
- ARM Channel 26 New Fuel Vault (> 6 mR/hr)
- ARM Channel 27 North of Fuel Pool (> 10 mR/hr)
- ARM Channel 28 Between Reactor and Fuel Pool (> 1000 mR/hr)
- ARM Channel 29 Cask Wash Area (> 40 mR/hr)

RA2.3
Lowering of spent fuel pool level to ≤ 105 ft. 3 in. ele.

RU2 UNPLANNED loss of water level above irradiated fuel
1 | 2 | 3 | 4 | 5 | DEF

RU2.1
UNPLANNED water level drop in the REFUELING PATHWAY as indicated by low water level alarm (A-04 6-6) or indication
AND
UNPLANNED rise in area radiation levels as indicated by **any** of the following radiation monitors:
- ARM Channel 26 New Fuel Vault
- ARM Channel 27 North of Fuel Pool
- ARM Channel 28 Between Reactor and Fuel Pool
- ARM Channel 29 Cask Wash Area

3 Area Rad Levels

General Emergency: None

Table R-2 Safe Shutdown Rooms/Areas

Room / Area	Mode(s)
- Reactor Building -17' North RHR Unit 1 & 2	3, 4, 5
- Reactor Building -17' South RHR Unit 1 & 2	3, 4, 5
- Reactor Building 20' East & West MCC Areas Unit 1 & 2	3, 4, 5
- Reactor Building 20' Pipe Tunnel Unit 1 & 2	3, 4, 5

RA3 Radiation levels that IMPEDE access to equipment necessary for normal plant operations, cooldown or shutdown
1 | 2 | 3 | 4 | 5 | DEF

RA3.1
Dose rates > 15 mR/hr in **EITHER** of the following areas:
Control Room (ARM Channel 1-1)
OR
Central Alarm Station (by survey)

RA3.2
An UNPLANNED event results in radiation levels that prohibit or IMPEDE access to any Table R-2 rooms or areas (Note 5)

Unusual Event: None

H — Hazards

1 Security

HG1 Hostile Action resulting in loss of physical control of the facility
1 | 2 | 3 | 4 | 5 | DEF

HG1.1
A HOSTILE ACTION is occurring or has occurred within the PROTECTED AREA as reported by the Security Shift Supervision
AND EITHER of the following has occurred:
Any of the following safety functions cannot be controlled or maintained
- Reactivity
- RPV water level
- RCS heat removal

OR
Damage to spent fuel has occurred or is IMMINENT

HS1 Hostile Action within the Protected Area
1 | 2 | 3 | 4 | 5 | DEF

HS1.1
A HOSTILE ACTION is occurring or has occurred within the PROTECTED AREA as reported by the Security Shift Supervision

HA1 Hostile action within the owner controlled area or airborne attack threat within 30 minutes
1 | 2 | 3 | 4 | 5 | DEF

HA1.1
A HOSTILE ACTION is occurring or has occurred within the OWNER CONTROLLED AREA as reported by the Security Shift Supervision

HA1.2
A validated notification from NRC of an aircraft attack threat within 30 min. of the site

HU1 Confirmed SECURITY CONDITION or threat
1 | 2 | 3 | 4 | 5 | DEF

HU1.1
A SECURITY CONDITION that does not involve a HOSTILE ACTION as reported by the Security Shift Supervision

HU1.2
Notification of a credible security threat directed at the site

HU1.3
A validated notification from the NRC providing information of an aircraft threat

2 Seismic Event

General Emergency: None

Site Area Emergency: None

Alert: See SA8.1 for potential for upgrade to an Alert based on degraded safety system performance or damage

HU2 Seismic event greater than OBE levels
1 | 2 | 3 | 4 | 5 | DEF

HU2.1
Seismic event > OBE per 0AOP-13.0

3 Natural or Technical Hazard

General Emergency: None

Site Area Emergency: None

Alert: See SA8.1 for potential for upgrade to an Alert based on degraded safety system performance or damage

HU3 Natural or Technological Hazard
1 | 2 | 3 | 4 | 5 | DEF

HU3.1
A tornado strike within the PROTECTED AREA

HU3.2
Internal room or area FLOODING of a magnitude sufficient to require manual or automatic electrical isolation of a SAFETY SYSTEM component needed for the current operating mode

HU3.3
Movement of personnel within the PROTECTED AREA is IMPEDED due to an event external to the PROTECTED AREA involving hazardous materials (e.g., an offsite chemical spill or toxic gas release)

HU3.4
A hazardous event that results in onsite conditions sufficient to prohibit the plant staff from accessing the site via personal vehicles (Note 7)

HU3.5
Intake Canal water level > +19 ft. Mean Sea Level
OR
Intake Canal water level < -7.75 ft. Mean Sea Level

4 Fire

General Emergency: None

Site Area Emergency: None

Alert: See SA8.1 for potential for upgrade to an Alert based on degraded safety system performance or damage

Table H-1 Fire Areas
- Reactor Building
- Diesel Generator Building
- Diesel 4-Day Tank Rooms
- Service Water Building
- Turbine Building
- Control Building
- CSTs
- Diesel Fuel Oil Storage tank

HU4 FIRE potentially degrading the level of safety of the plant
1 | 2 | 3 | 4 | 5 | DEF

HU4.1
A FIRE is not extinguished within 15 min. of any of the following FIRE detection indications (Note 1):
- Report from the field (i.e., visual observation)
- Receipt of multiple (more than 1) fire alarms or indications
- Field verification of a single fire alarm

AND
The FIRE is located within any Table H-1 area

HU4.2
Receipt of a single fire alarm (i.e., no other indications of a FIRE)
AND
The fire alarm is indicating a FIRE within any Table H-1 area
AND
The existence of a FIRE is not verified within 30 min. of alarm receipt (Note 1)

HU4.3
A FIRE within the plant PROTECTED AREA not extinguished within 60 min. of the initial report, alarm or indication (Note 1)

HU4.4
A FIRE within the plant PROTECTED AREA that requires firefighting support by an offsite fire response agency to extinguish

5 Hazardous Gases

General Emergency: None

Table H-2 Safe Shutdown Rooms/Areas

Room / Area	Mode(s)
- Reactor Building -17' North RHR Unit 1 & 2	3, 4, 5
- Reactor Building -17' South RHR Unit 1 & 2	3, 4, 5
- Reactor Building 20' East & West MCC Areas Unit 1 & 2	3, 4, 5
- Reactor Building 20' Pipe Tunnel Unit 1 & 2	3, 4, 5

HA5 Gaseous release impeding access to equipment necessary for normal plant operations, cooldown or shutdown
1 | 2 | 3 | 4 | 5 | DEF

HA5.1
Release of a toxic, corrosive, asphyxiant or flammable gas into any Table H-2 rooms or areas
AND
Entry into the room or area is prohibited or IMPEDED (Note 5)

Unusual Event: None

6 Control Room Evacuation

General Emergency: None

HS6 Inability to control a key safety function from outside the Control Room
1 | 2 | 3 | 4 | 5 | DEF

HS6.1
An event has resulted in plant control being transferred from the Control Room to the Remote Shutdown Panels
AND
Control of **any** of the following key safety functions is not reestablished within 22.5 min. (Note 1):
- Reactivity
- RPV water level
- RCS heat removal

HA6 Control Room evacuation resulting in transfer of plant control to alternate locations
1 | 2 | 3 | 4 | 5 | DEF

HA6.1
An event has resulted in plant control being transferred from the Control Room to the Remote Shutdown Panels

Unusual Event: None

7 SEC Judgment

HG7 Other conditions exist which in the judgment of the Site Emergency Coordinator warrant declaration of a General Emergency
1 | 2 | 3 | 4 | 5 | DEF

HG7.1
Other conditions exist which in the judgment of the Site Emergency Coordinator indicate that events are in progress or have occurred which involve actual or IMMINENT substantial core degradation or melting with potential for loss of containment integrity or HOSTILE ACTION that results in an actual loss of physical control of the facility. Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels offsite for more than the immediate site area

HS7 Other conditions existing that in the judgment of the Site Emergency Coordinator warrant declaration of a Site Area Emergency
1 | 2 | 3 | 4 | 5 | DEF

HS7.1
Other conditions exist which in the judgment of the Site Emergency Coordinator indicate that events are in progress or have occurred which involve actual or likely major failures of plant functions needed for protection of the public or HOSTILE ACTION that results in intentional damage or malicious acts, (1) toward site personnel or equipment that could lead to the likely failure of or, (2) that prevent effective access to equipment needed for the protection of the public. Any releases are not expected to result in exposure levels which exceed EPA Protective Action Guideline exposure levels beyond the site boundary.

HA7 Other conditions exist that in the judgment of the Site Emergency Coordinator warrant declaration of an Alert
1 | 2 | 3 | 4 | 5 | DEF

HA7.1
Other conditions exist which, in the judgment of the Site Emergency Coordinator, indicate that events are in progress or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant or a security event that involves probable life threatening risk to site personnel or damage to site equipment because of HOSTILE ACTION. Any releases are expected to be limited to small fractions of the EPA Protective Action Guideline exposure levels.

HU7 Other conditions existing that in the judgment of the Site Emergency Coordinator warrant declaration of a UE
1 | 2 | 3 | 4 | 5 | DEF

HU7.1
Other conditions exist which in the judgment of the Site Emergency Coordinator indicate that events are in progress or have occurred which indicate a potential degradation of the level of safety of the plant or indicate a security threat to facility protection has been initiated. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs.

E — ISFSI

General Emergency: None

Site Area Emergency: None

Alert: None

EU1 Damage to a loaded cask CONFINEMENT BOUNDARY
1 | 2 | 3 | 4 | 5 | DEF

EU1.1
Damage to a loaded canister confinement boundary as indicated by an on-contact radiation reading on the surface of a loaded spent fuel cask > any of the following:
- 1,400 mrem/hr on the HSM-H front surface
- 10 mrem/hr on the HSM-H door centerline
- 20 mrem/hr on the end shield wall exterior

Modes: 1 Power Operations | 2 Startup | 3 Hot Shutdown | 4 Cold Shutdown | 5 Refuel | DEF Defueled

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Columns: **GENERAL EMERGENCY** | **SITE AREA EMERGENCY** | **ALERT** | **UNUSUAL EVENT**

S — System Malfunct.

1 Loss of Emer. AC Power

SG1 Prolonged loss of **all** offsite and **all** onsite AC power to emergency buses **OR** loss of **all** emergency AC and vital DC power sources for 15 minutes or longer
1 | 2 | 3

SG1.1
Loss of all offsite and all onsite AC power capability to Emergency 4 KV Buses E1(E3) and E2(E4)
AND EITHER:
- Restoration of at least one emergency bus in < 4 hours is not likely (Note 1)
- RPV water level cannot be restored and maintained > MSCRWL (LL-4)

SG1.2
Loss of all offsite and all onsite AC power capability to Emergency 4 KV Buses E1(E3) and E2(E4) for ≥ 15 min.
AND
Loss of all 125 VDC power based on battery bus voltage indications < 105 VDC on all vital DC buses 1(2)A-1, A-2, B-1 and B-2 for ≥ 15 min.
(Note 1)

SS1 Loss of **all** offsite and **all** onsite AC power to emergency buses for 15 minutes or longer
1 | 2 | 3

SS1.1
Loss of all offsite and all onsite AC power capability to Emergency 4 KV Buses E1(E3) and E2(E4) for ≥ 15 min. (Note 1)

SA1 Loss of **all but one** AC power source to emergency buses for 15 minutes or longer
1 | 2 | 3

SA1.1
AC power capability to Emergency 4 KV Buses E1(E3) and E2(E4) reduced to a single power source for ≥ 15 min. (Note 1)
AND
Any additional single power source failure will result in loss of **all** unit-specific AC power to SAFETY SYSTEMS

SU1 Loss of **all** offsite AC power capability to emergency buses for 15 minutes or longer
1 | 2 | 3

SU1.1
Loss of all offsite AC power capability to Emergency 4 KV Buses E1(E3) and E2(E4) for ≥ 15 min. (Note 1)

2 Loss of Vital DC Power

General Emergency: None

SS2 Loss of all vital DC power for 15 minutes or longer
1 | 2 | 3

SS2.1
Loss of **all** 125 VDC power based on battery bus voltage indications < 105 VDC on **all** vital DC buses 1(2)A-1, A-2, B-1 and B-2 for ≥ 15 min. (Note 1)

Alert: None

Unusual Event: None

3 Loss of CR Indications

General Emergency: None

Table S-1 Safety System Parameters
- Reactor Power
- RPV Water Level
- RPV pressure
- Primary containment pressure
- Torus water level
- Torus temperature

SA3 UNPLANNED loss of Control Room indications for 15 minutes or longer with a significant transient in progress
1 | 2 | 3

SA3.1
An UNPLANNED event results in the inability to monitor one or more Table S-1 parameters from within the Control Room for ≥ 15 min. (Note 1)
AND
Any significant transient is in progress, Table S-2

SU3 UNPLANNED loss of Control Room indications for 15 minutes or longer
1 | 2 | 3

SU3.1
An UNPLANNED event results in the inability to monitor one or more Table S-1 parameters from within the Control Room for ≥ 15 min. (Note 1)

4 RCS Activity

General Emergency: None

Table S-2 Significant Transients
- Reactor scram
- Runback > 25% rated thermal power
- Electrical load rejection > 25% electrical load
- ECCS injection
- Thermal power oscillations > 10% (peak to peak)

Alert: None

SU4 Reactor coolant activity greater than Technical Specification allowable limits
1 | 2 | 3

SU4.1
Steam Jet Air Ejector Radiation Monitor 1(2)D12-RM-K601A /B Hi-Hi alarm (Process Off-Gas Rad Hi-Hi alarm 1(2)UA-03 4-2) ≥ 15 min. (Note 1)

SU4.2
Coolant activity > 0.2 µCi/gm I-131 dose equivalent for > 48 hrs
OR
Coolant activity > 4.0 µCi/gm I-131 dose equivalent instantaneous

5 RCS Leakage

General Emergency: None

Site Area Emergency: None

Alert: None

SU5 RCS leakage for 15 minutes or longer
1 | 2 | 3

SU5.1
RCS unidentified or pressure boundary leakage > 10 gpm for ≥ 15 min.
OR
Identified leakage > 25 gpm for ≥ 15 min.
OR
Leakage from the RCS to a location outside Primary Containment > 25 gpm for ≥ 15 min.
(Note 1)

6 RPS Failure

General Emergency: None

SS6 Inability to shut down the reactor causing a challenge to RPV water level or RCS heat removal
1 | 2

SS6.1
An automatic or manual scram fails to reduce reactor power < 2% (APRM downscale)
AND
All actions to shut down the reactor are **not** successful as indicated by reactor power ≥ 2%
AND EITHER:
- RPV level **cannot** be restored and maintained > LL-4 or cannot be determined
- Suppression pool water temperature and RPV pressure **cannot** be maintained below the HCTL

SA6 Automatic or manual scram fails to shut down the reactor and subsequent manual actions taken at the reactor control consoles are not successful in shutting down the reactor
1 | 2

SA6.1
An automatic or manual scram fails to reduce reactor power < 2% (APRM downscale)
AND
Manual scram actions taken at the reactor control console (Manual PBs, Mode Switch, ARI) are not successful in shutting down the reactor as indicated by reactor power ≥ 2% (Note 8)

SU6 Automatic or manual scram fails to shut down the reactor
1 | 2

SU6.1
An automatic scram did **not** reduce reactor power < 2% (APRM downscale) after **any** RPS setpoint is exceeded
AND
A subsequent automatic scram or manual scram action taken at the reactor control console (Manual PBs, Mode Switch, ARI) is successful in shutting down the reactor as indicated by reactor power < 2% (APRM downscale) (Note 8)

SU6.2
A manual scram did **not** reduce reactor power < 2% (APRM downscale) after **any** manual scram action was initiated
AND
A subsequent automatic scram or manual scram action taken at the reactor control console (Manual PBs, Mode Switch, ARI) is successful in shutting down the reactor as indicated by reactor power < 2% (APRM downscale) (Note 8)

7 Loss of Comm.

Table S-3 Communication Methods

System	Onsite	Offsite	NRC
Public Address System	X		
PBX Telephone System	X	X	X
Corporate Telephone Communications System	X	X	X
Commercial Telephones	X	X	X
Satellite Phones		X	X
Cellular Phones		X	X
NRC Emergency Telecommunications System			X

Site Area Emergency: None

Alert: None

SU7 Loss of **all** onsite or offsite communications capabilities
1 | 2 | 3

SU7.1
Loss of all Table S-3 onsite communication methods
OR
Loss of all Table S-3 offsite communication methods
OR
Loss of all Table S-3 NRC communication methods

8 Hazardous Event

General Emergency: None

Table S-4 Hazardous Events
- Seismic event (earthquake)
- Internal or external FLOODING event
- High winds or tornado strike
- FIRE
- EXPLOSION
- Other events with similar hazard characteristics as determined by the Shift Manager

SA8 Hazardous event affecting a SAFETY SYSTEM needed for the current operating mode
1 | 2 | 3

SA8.1
The occurrence of any Table S-4 hazardous event
AND EITHER:
- Event damage has caused indications of degraded performance in at least one train of a SAFETY SYSTEM needed for the current operating mode
- The event has caused VISIBLE DAMAGE to a SAFETY SYSTEM component or structure needed for the current operating mode

Unusual Event: None

F — Fission Product Barriers

FG1.1 1 | 2 | 3
Loss of **any** two barriers
AND
Loss or potential loss of third barrier (Table F-1)

FS1.1 1 | 2 | 3
Loss or potential loss of **any** two barriers (Table F-1)

FA1.1 1 | 2 | 3
Any loss or **any** potential loss of either Fuel Clad or RCS (Table F-1)

Unusual Event: None

Table F-1 Fission Product Barrier Threshold Matrix

	Fuel Clad Barrier		Reactor Coolant System Barrier		Containment Barrier	
	Loss	**Potential Loss**	**Loss**	**Potential Loss**	**Loss**	**Potential Loss**
A. RPV Water Level	1.Entry to SAMG-01 required	1. RPV level **cannot** be restored and maintained > TAF or **cannot** be determined	1. RPV level **cannot** be restored and maintained > TAF or **cannot** be determined	None	None	1. Entry to SAMG-01 required
B. RCS Leak Rate	None	None	1. UNISOLABLE break in any of the following: - Main steam line - HPCI steam line - RCIC steam line - RWCU - Feedwater 2. Emergency Depressurization is required	1. UNISOLABLE primary system leakage that results in exceeding **EITHER** of the following: • One or more Secondary Containment area radiation Maximum Normal Operating Limits (0EOP-03-SCCP Table 3) • One or more Secondary Containment area temperature Maximum Normal Operating Limits(0EOP-03-SCCP Table 1)	1. UNISOLABLE primary system leakage that results in exceeding **EITHER** of the following: • One or more Secondary Containment area radiation Maximum Safe Operating Limits (0EOP-03-SCCP Table 3) • One or more Secondary Containment area temperature Maximum Safe Operating Limits(0EOP-03-SCCP Table 1)	None
C. PC Conditions	None	None	1. Primary Containment pressure > 1.7 psig due to RCS leakage	None	1. UNPLANNED rapid drop in Primary Containment pressure following Primary Containment pressure rise 2. Primary Containment pressure response not consistent with LOCA conditions	1. Primary Containment pressure > 62 psig 2. Deflagration concentrations exist inside PC (H_2 ≥ 6% **AND** O_2 ≥ 5%) 3. Heat Capacity Temperature Limit (HCTL) exceeded
D. PC Rad / RCS Activity	1. Drywell radiation > 2,000 R/hr 2. Primary coolant activity > 300 µCi/gm I-131dose equivalent	None	1. Drywell radiation > 27 R/hr with reactor shutdown	None	None	1. Drywell radiation > 20,000 R/hr
E. PC Integrity or Bypass	None	None	None	None	1. UNISOLABLE direct downstream pathway to the environment exists after Primary Containment isolation signal 2. Intentional Primary Containment venting per EOPs	None
F. SEC Judgment	1. **Any** condition in the opinion of the Site Emergency Coordinator that indicates loss of the Fuel Clad barrier	1. **Any** condition in the opinion of the Site Emergency Coordinator that indicates potential loss of the Fuel Clad barrier	1. **Any** condition in the opinion of the Site Emergency Coordinator that indicates loss of the RCS barrier	1. **Any** condition in the opinion of the Site Emergency Coordinator that indicates potential loss of the RCS barrier	1. **Any** condition in the opinion of the Site Emergency Coordinator that indicates loss of the Containment barrier	1. **Any** condition in the opinion of the Site Emergency Coordinator that indicates potential loss of the Containment barrier

Note 1: The SEC should declare the event promptly upon determining that time limit has been exceeded, or will likely be exceeded.

Note 2: If an ongoing release is detected and the release start time is unknown, assume that the release duration has exceeded the specified time limit.

Note 3: If the effluent flow past an effluent monitor is known to have stopped, indicating that the release path is isolated, the effluent monitor reading is no longer VALID for classification purposes.

Note 4: The pre-calculated effluent monitor values presented in EALs RA1.1, RS1.1 and RG1.1 should be used for emergency classification assessments until the results from a dose assessment using actual meteorology are available.

Note 5: If the equipment in the listed room or area was already inoperable or out-of-service before the event occurred, then no emergency classification is warranted.

Note 6: If CONTAINMENT CLOSURE is re-established prior to exceeding the 30-minute time limit, declaration of a General Emergency is not required.

Note 7: This EAL does not apply to routine traffic impediments such as fog, snow, ice, or vehicle breakdowns or accidents.

Note 8: A manual scram action is any operator action, or set of actions, which causes the control rods to be rapidly inserted into the core, and does not include manually driving in control rods or implementation of boron injection strategies.

EAL-1 MODES 1, 2 & 3

D01