Emergency Action Level Criteria — GENERAL EMERGENCY | SITE AREA EMERGENCY | ALERT | UNUSUAL EVENT

R — Abnorm. Rad Levels / Rad Effluents

1 — Offsite Rad Conditions

RG1.1 [1 | 2 | 3 | 4 | 5 | 6 | D]

ANY radiation monitor reading > Table R-1 column "GE" for ≥ 15 min. (Note 1)
- Do **not** delay declaration awaiting dose assessment results
- If dose assessment results are available, declaration should be based on dose assessment instead of radiation monitor values (see EAL RG1.2)

RG1.2 [1 | 2 | 3 | 4 | 5 | 6 | D]

Dose assessment using actual meteorology indicates doses > 1,000 mRem TEDE or 5,000 mRem thyroid CDE at or beyond the site boundary

RG1.3 [1 | 2 | 3 | 4 | 5 | 6 | D]

Field survey results indicate closed window dose rates > 1,000 mRem/hr expected to continue for ≥ 60 min. at or beyond the site boundary
OR
Analyses of field survey samples indicate thyroid CDE > 5,000 mRem for 1 hr of inhalation at or beyond the site boundary (Note 1)

RS1.1 [1 | 2 | 3 | 4 | 5 | 6 | D]

ANY radiation monitor reading > Table R-1 column "SAE" for ≥ 15 min. (Note 1)
- Do **not** delay declaration awaiting dose assessment results
- If dose assessment results are available, declaration should be based on dose assessment instead of radiation monitor values (see EAL RS1.2)

RS1.2 [1 | 2 | 3 | 4 | 5 | 6 | D]

Dose assessment using actual meteorology indicates doses > 100 mRem TEDE or 500 mRem thyroid CDE at or beyond the site boundary

RS1.3 [1 | 2 | 3 | 4 | 5 | 6 | D]

Field survey results indicate closed window dose rates > 100 mRem/hr expected to continue for ≥ 60 min. at or beyond the site boundary
OR
Analyses of field survey samples indicate thyroid CDE > 500 mRem for 1 hr of inhalation at or beyond the site boundary (Note 1)

RA1.1 [1 | 2 | 3 | 4 | 5 | 6 | D]

ANY gaseous monitor reading > Table R-1 column "Alert" for ≥ 15 min. (Note 2)

RA1.2 [1 | 2 | 3 | 4 | 5 | 6 | D]

Confirmed sample analyses for gaseous or liquid releases indicate concentrations or release rates > 200 x ODCM limits for ≥ 15 min. (Note 2)

RU1.1 [1 | 2 | 3 | 4 | 5 | 6 | D]

ANY gaseous or liquid monitor reading > Table R-1 column "UE" for ≥ 60 min. (Note 2)

RU1.2 [1 | 2 | 3 | 4 | 5 | 6 | D]

Confirmed sample analyses for gaseous or liquid releases indicate concentrations or release rates > 2 x ODCM limits for ≥ 60 min. (Note 2)

2 — Onsite Rad Conditions & Spent Fuel Events

RA2.1 [1 | 2 | 3 | 4 | 5 | 6 | D]

Alarm on **ANY** of the following radiation monitors due to damage to irradiated fuel or loss of water level:
- Fuel Handling Area Vent (RI-5420)
- SFP Area RM-320 EL-69 (RI-7024)
- Spent Fuel Handling Machine (RI-7025)
- Unit 1/2 CNTMT EL-69 (RI-5316A/B/C/D)

RA2.2 [1 | 2 | 3 | 4 | 5 | 6 | D]

A water level drop in a reactor refueling pathway that will result in irradiated fuel becoming uncovered

RU2.1 [1 | 2 | 3 | 4 | 5 | 6 | D]

UNPLANNED water level drop in a reactor refueling pathway as indicated by **ANY** of the following (Note 3):
- Inability to restore and maintain SFP level > Technical Specification limit (65 ft 7 in)
- Inability to restore and maintain RFP level > Technical Specification limit (56 ft 8.5 in)
- Report of visual observation of an uncontrolled drop in water level in the RFP or SFP

AND
Area radiation monitor reading rise on **ANY** of the following:
- SFP Area RM-320 EL-69 (RI-7024)
- Spent Fuel Handling Machine (RI-7025)
- Unit 1/2 CNTMT EL-69 (RI-5316A/B/C/D)

RU2.2 [1 | 2 | 3 | 4 | 5 | 6 | D]

UNPLANNED area radiation readings increases by a factor of 1,000 over NORMAL LEVELS

3 — CR/CAS Rad

RA3.1 [1 | 2 | 3 | 4 | 5 | 6 | D]

Dose rates > 15 mRem/hr in **ANY** of the following areas requiring continuous occupancy to maintain plant safety functions:
- Control Room
- CAS

Table R-1 Effluent Monitor Classification Thresholds

	Monitor	GE	SAE	ALERT	UE
GASEOUS	WRNGM (RIC-5415)	3.2E+09 µCi/sec	3.2E+08 µCi/sec	3.2E+07 µCi/sec	3.2E+05 µCi/sec
GASEOUS	Main Steam Effluent (RI-5421, RI-5422)	40.0 rem/hr	4.0 rem/hr	0.40 rem/hr	N/A
GASEOUS	Main Vent (RI-5415)	N/A	N/A	N/A	2.0E+05 cpm
GASEOUS	Waste Processing (RI-5410)	N/A	N/A	N/A	4.0E+05 cpm
GASEOUS	Fuel Handling Area Vent (RI-5420)	N/A	N/A	N/A	3.4E+05 cpm
LIQUID	Liquid Waste Disch* (RE-2201)	N/A	N/A	N/A	8.4E+05 cpm

* with effluent discharge **not** isolated

H — Hazards & Other Conditions Affecting Plant Safety

1 — Natural or Destructive Phenomena

HA1.1 [1 | 2 | 3 | 4 | 5 | 6 | D]

EITHER:
Seismic Acceleration Recorder (0-YRC-001) Event Indicator indicates seismic event > OBE (0.08 g horizontal, 0.053g vertical)
OR
Control Room indication of degraded performance of **ANY** SAFETY-RELATED STRUCTURE, SYSTEM, OR COMPONENT
AND
Earthquake confirmed by **EITHER**:
Earthquake felt in plant
OR
National Earthquake Information Center (Note 7)

HA1.2 [1 | 2 | 3 | 4 | 5 | 6 | D]

Tornado striking or sustained high winds > 45 m/sec (100 mph) resulting in **EITHER**:
VISIBLE DAMAGE to **ANY** SAFETY-RELATED STRUCTURE, SYSTEM, OR COMPONENT within **ANY** Table H-1 area
OR
Control Room indication of degraded performance of **ANY** SAFETY-RELATED STRUCTURE, SYSTEM, OR COMPONENT within **ANY** Table H-1 area

HA1.3 [1 | 2 | 3 | 4 | 5 | 6 | D]

Internal flooding in **ANY** Table H-1 area resulting in **EITHER**:
An electrical shock hazard that precludes access to operate or monitor **ANY** SAFETY-RELATED STRUCTURE, SYSTEM, OR COMPONENT within **ANY** Table H-1 area
OR
Control Room indication of degraded performance of **ANY** SAFETY-RELATED STRUCTURE, SYSTEM, OR COMPONENT within **ANY** Table H-1 area

HA1.4 [1 | 2 | 3 | 4 | 5 | 6 | D]

Turbine failure-generated PROJECTILES resulting in **EITHER**:
VISIBLE DAMAGE to or penetration of **ANY** SAFETY-RELATED STRUCTURE, SYSTEM, OR COMPONENT within **ANY** Table H-1 area
OR
Control Room indication of degraded performance of **ANY** SAFETY-RELATED STRUCTURE, SYSTEM, OR COMPONENT within **ANY** Table H-1 area

HA1.5 [1 | 2 | 3 | 4 | 5 | 6 | D]

Bay water level ≥ top of the traveling screen cover housing
OR
Bay water level or inside travelling screen water level < 16.0 ft below intake concrete level (-72.0 in. Mean Sea Level)

HA1.6 [1 | 2 | 3 | 4 | 5 | 6 | D]

Vehicle crash resulting in **EITHER**:
VISIBLE DAMAGE to **ANY** SAFETY-RELATED STRUCTURE, SYSTEM, OR COMPONENT within **ANY** Table H-1 area
OR
Control Room indication of degraded performance of **ANY** SAFETY-RELATED STRUCTURE, SYSTEM, OR COMPONENT within **ANY** Table H-1 area

HU1.1 [1 | 2 | 3 | 4 | 5 | 6 | D]

Seismic event identified by **ANY two** of the following:
- Seismic Acceleration Recorder (0-YRC-001) Event Indicator alarms indicate seismic event detected
- Earthquake felt in plant
- National Earthquake Information Center (Note 7)

HU1.2 [1 | 2 | 3 | 4 | 5 | 6 | D]

Tornado striking within PROTECTED AREA boundary
OR
Sustained high winds > 45 m/sec (100 mph)

HU1.3 [1 | 2 | 3 | 4 | 5 | 6 | D]

Internal flooding that has the potential to affect **ANY** SAFETY-RELATED STRUCTURE, SYSTEM, OR COMPONENT required by Technical Specifications for the current operating mode in **ANY** Table H-1 area

HU1.4 [1 | 2 | 3 | 4 | 5 | 6 | D]

Turbine failure resulting in casing penetration or damage to turbine or generator seals

HU1.5 [1 | 2 | 3 | 4 | 5 | 6 | D]

Bay water level ≥ bottom of the traveling screen cover housing (+ 10 ft Mean Sea Level)
OR
Bay water level < 13.6 ft below intake concrete level (- 43.2 in. Mean Sea Level)

Table H-1 Safe Shutdown Areas

- Control Room
- Containment
- Auxiliary Building
- Diesel Generator Rooms
- Intake Structure
- 1A/0C DG Buildings
- RWT
- RWT Rooms
- CST No. 12
- FOST No. 21
- Auxiliary Feed Pump Rooms

2 — Fire or Explosion

HA2.1 [1 | 2 | 3 | 4 | 5 | 6 | D]

FIRE or EXPLOSION resulting in **EITHER**:
VISIBLE DAMAGE to **ANY** SAFETY-RELATED STRUCTURE, SYSTEM, OR COMPONENT within **ANY** Table H-1 area
OR
Control Room indication of degraded performance of **ANY** SAFETY-RELATED STRUCTURE, SYSTEM, OR COMPONENT within **ANY** Table H-1 area

HU2.1 [1 | 2 | 3 | 4 | 5 | 6 | D]

FIRE **not** extinguished within 15 min. of Control Room notification or verification of a Control Room fire alarm in the North Service Building, Turbine Building, Butler Building* or **ANY** Table H-1 area (Note 4)

HU2.2 [1 | 2 | 3 | 4 | 5 | 6 | D]

EXPLOSION within the PROTECTED AREA

* Butler Building is only considered adjacent in Modes 5, 6 and D

3 — Hazardous Gas

HA3.1 [1 | 2 | 3 | 4 | 5 | 6 | D]

Access to **ANY** Table H-1 area is prohibited due to toxic, corrosive, asphyxiant or flammable gases which jeopardize operation of **ANY** SAFETY-RELATED STRUCTURE, SYSTEM, OR COMPONENT (Note 5)

HU3.1 [1 | 2 | 3 | 4 | 5 | 6 | D]

Toxic, corrosive, asphyxiant or flammable gases in amounts that have or could adversely affect NORMAL PLANT OPERATIONS

HU3.2 [1 | 2 | 3 | 4 | 5 | 6 | D]

Recommendation by local, county or state officials to evacuate or shelter site personnel based on an offsite event

Notes

1. The ED should **not** wait until the applicable time has elapsed, but should declare the event as soon as it is determined that the condition will likely exceed the applicable time
2. The ED should **not** wait until the applicable time has elapsed, but should declare the event as soon as it is determined that the release duration has exceeded, or will likely exceed, the applicable time. In the absence of data to the contrary, assume that the release duration has exceeded the applicable time if an ongoing release is detected and the release start time is unknown.
3. If loss of water level in the refueling pathway occurs while in Mode 5, 6 or D, consider classification under EALs CU3.1, CU3.2 or CU3.3
4. The ED should **not** wait until the applicable time has elapsed, but should declare the event as soon as it is determined that the condition has exceeded, or will likely exceed, the applicable time.
5. If the equipment in the stated area was already inoperable, or out of service, before the event occurred, then EAL HA3.1 should **not** be declared as it will have no adverse impact on the ability of the plant to safely operate or safely shutdown beyond that already allowed by Technical Specifications at the time of the event.
6. The lowest RVLMS indication is the 10 in. alarm, which is 10 in. above top of active fuel. Therefore, this indicator should only be used when a valid RFP/RCS level indication is **not** available.
7. The NEIC can be contacted by calling **(303) 273-8500**. Select option #1 and inform the analyst you wish to confirm recent seismic activity in the vicinity of Calvert Cliffs Nuclear Power Plant. Provide the analyst with the following CCNPP coordinates: **38° 25' 39.7" north latitude, 76° 26' 45" west longitude**.
8. High temperature in Containment may induce a current error in the Mineral Insulated (MI) cable running through Containment to the meter. The CHRRM 1(2)-RI-5317 A&B may **not** detect this value (6 R/hr) under these conditions. When Containment temperature reaches 300°F, the meter will indicate approximately 40 R/hr for a few minutes then drop to approximately 10 R/hr after three hours. This information is to provide guidance on determining the validity of the readings under the specified high temperature conditions.

4 — Security

HG4.1 [1 | 2 | 3 | 4 | 5 | 6 | D]

A HOSTILE ACTION has occurred such that plant personnel are unable to operate equipment required to maintain **ANY** of the following safety function acceptance criteria:
- Reactivity control (RC)
- Vital Auxiliaries (VA)
- RCS pressure and inventory control (PIC)
- Core & RCS heat removal (HR)

HG4.2 [1 | 2 | 3 | 4 | 5 | 6 | D]

A HOSTILE ACTION has caused failure of Spent Fuel Cooling systems
AND
IMMINENT fuel damage is likely

HS4.1 [1 | 2 | 3 | 4 | 5 | 6 | D]

A HOSTILE ACTION is occurring or has occurred within the PROTECTED AREA as reported by Security Shift Supervisor

HA4.1 [1 | 2 | 3 | 4 | 5 | 6 | D]

A HOSTILE ACTION is occurring or has occurred within the Owner Controlled Area as reported by Security Shift Supervisor
OR
A validated notification from NRC of an AIRLINER attack threat within 30 min. of the site

HU4.1 [1 | 2 | 3 | 4 | 5 | 6 | D]

A SECURITY CONDITION that does **not** involve a HOSTILE ACTION as reported by Security Shift Supervisor
OR
A credible site-specific security threat notification
OR
A validated notification from NRC providing information of an aircraft threat

5 — Control Room Evacuation

General Emergency: None

HS5.1 [1 | 2 | 3 | 4 | 5 | 6 | D]

Control Room evacuation has been initiated **AND EITHER**:
Inability to establish Auxiliary Feedwater to at least one steam generator within 30 min. (Note 4)
OR
Inability to establish reactor coolant make-up (charging pump flow) within 60 min. (Note 4)

HA5.1 [1 | 2 | 3 | 4 | 5 | 6 | D]

Control Room evacuation has been initiated

Unusual Event: None

6 — Judgment

HG6.1 [1 | 2 | 3 | 4 | 5 | 6 | D]

Other conditions exist which in the judgment of the Emergency Director 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 (1,000 mRem TEDE and 5,000 mRem thyroid CDE) offsite for more than the immediate site area.

HS6.1 [1 | 2 | 3 | 4 | 5 | 6 | D]

Other conditions exist which in the judgment of the Emergency Director 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 (1,000 mRem TEDE and 5,000 mRem thyroid CDE) beyond the site boundary.

HA6.1 [1 | 2 | 3 | 4 | 5 | 6 | D]

Other conditions exist which in the judgment of the Emergency Director 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 (1,000 mRem TEDE and 5,000 mRem thyroid CDE)

HU6.1 [1 | 2 | 3 | 4 | 5 | 6 | D]

Other conditions exist which in the judgment of the Emergency Director 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

EU1.1 [N/A]

Damage to a loaded cask CONFINEMENT BOUNDARY

S — System Malfunct.

1 — Loss of AC Power

SG1.1 [1 | 2 | 3 | 4]

Loss of **all** offsite and **all** onsite AC power, Table S-1, to 4kV vital buses 11(21) and 14(24)
AND EITHER:
Restoration of at least one 4 kV vital bus within 4 hours is **not** likely
OR
CET readings > 700°F

SS1.1 [1 | 2 | 3 | 4]

Loss of **all** offsite and **all** onsite AC power, Table S-1, to 4kV vital buses 11(21) and 14(24) for ≥ 15 min. (Note 4)

SA1.1 [1 | 2 | 3 | 4]

AC power capability to 4kV vital buses 11(21) and 14(24) reduced to a single power source, Table S-1, for ≥ 15 min. (Note 4)
AND
ANY additional single power source failure will result in a complete loss of all 4 kV vital bus power

SU1.1 [1 | 2 | 3 | 4]

Loss of **all offsite** AC power, Table S-1, to 4 kV vital buses 11(21) and 14(24) for ≥ 15 min. (Note 4)

Table S-1 AC Power Sources

- Onsite:
  - 1(2)A DG
  - 1(2)B DG
  - 0C DG, if aligned
- Offsite:
  - 500kV transmission line 5051*
  - 500kV transmission line 5052*
  - 500kV transmission line 5072*
  - SMECO line, if aligned

* A credited 500kV line must have an independent 13kV service transformer

2 — Loss of DC Power

General Emergency: None

SS2.1 [1 | 2 | 3 | 4]

< 105 VDC on all 125 VDC buses (11, 12, 21 and 22) for ≥ 15 min. (Note 4)

Alert: None

3 — Criticality & RPS Failure

SG3.1 [1]

An automatic reactor trip failed to shut down the reactor as indicated by reactor power > 5%
AND
All manual actions fail to shut down the reactor as indicated by reactor power > 5%
AND
ANY of the following exist or have occurred:
- CET readings > 700°F
- RCS pressure > PORV setpoint
- RCS subcooling < 25°F

SS3.1 [1]

An automatic reactor trip failed to shut down the reactor as indicated by reactor power > 5%
AND
Manual actions taken at the Control Room panels do **not** shut down the reactor as indicated by reactor power > 5%

SA3.1 [1]

An automatic reactor trip failed to shut down the reactor
AND
Manual actions taken at the Control Room panels successfully shut down the reactor as indicated by reactor power ≤ 5%

SU3.1 [3 | 4]

An UNPLANNED sustained positive startup rate observed on nuclear instrumentation

4 — Inability to Reach Shutdown Conditions

General Emergency: None
Site Area Emergency: None
Alert: None

SU4.1 [1 | 2 | 3 | 4]

Plant is **not** brought to required operating mode within Technical Specifications LCO required action completion time

5 — Inst.

SS5.1 [1 | 2 | 3 | 4]

Loss of greater than approximately 75% of safety system annunciation or indication on Control Room panels for ≥ 15 min. (Note 4)
AND
A significant transient is in progress, Table S-2
AND
Compensatory indications are unavailable (Plant Computer, SPDS)

SA5.1 [1 | 2 | 3 | 4]

UNPLANNED loss of greater than approximately 75% of safety system annunciation or indication on Control Room panels for ≥ 15 min. (Note 4)
AND EITHER:
A significant transient is in progress, Table S-2
OR
Compensatory indications are unavailable (Plant Computer, SPDS)

SU5.1 [1 | 2 | 3 | 4]

UNPLANNED loss of greater than approximately 75% of safety system annunciation or indication on Control Room panels for ≥ 15 min. (Note 4)

Table S-2 Significant Transients

- Automatic turbine runback > 25% thermal power
- Electric load rejection > 25% full electrical load
- Reactor trip
- Safety Injection actuation

6 — Comm.

SU6.1 [1 | 2 | 3 | 4]

Loss of **all** Table S-3 onsite (internal) communication methods affecting the ability to perform routine operations
OR
Loss of **all** Table S-3 offsite (external) communication methods affecting the ability to perform offsite notifications to any agency

Table S-3 Communications Systems

System	Onsite (internal)	Offsite (external)
Commercial phone system	X	X
Plant page system	X	
Microwave telephone (Hot-Lines) (EOB)	X	X
FTS 2001 telephone system		X
CCNPP Radio System	X	
Satellite Phone System		X
Cellular Phone System	X	X

7 — Fuel Clad Degradation

General Emergency: None

SU7.1 [1 | 2 | 3 | 4]

Coolant activity > **ANY** of the following:
- Dose equivalent I-131 0.5 µCi/gm for 100 hrs. continuous
- Dose equivalent I-131 acceptable region of T.S. Fig. 3.4.15-1
- Dose equivalent I-131 137.5 µCi/gm
- Gross activity 100/E-bar µCi/gm

SU7.2 [1 | 2 | 3 | 4]

Letdown Monitor (RY-202-1) high alarm (≥ 1E+06 cpm)

8 — RCS Leakage

General Emergency: None

SU8.1 [1 | 2 | 3 | 4]

Unidentified or pressure boundary leakage > 10 gpm for ≥ 15 min. (Note 4)
OR
Identified leakage > 25 gpm for ≥ 15 min. (Note 4)

F — Fission Product Barrier Degradation

FG1.1 [1 | 2 | 3 | 4]

Loss of **ANY** two barriers
AND
Loss or potential loss of third barrier (Table F-1)

FS1.1 [1 | 2 | 3 | 4]

Loss or potential loss of **ANY** two barriers (Table F-1)

FA1.1 [1 | 2 | 3 | 4]

ANY loss or **ANY** potential loss of either Fuel Clad or RCS (Table F-1)

FU1.1 [1 | 2 | 3 | 4]

ANY loss or **ANY** potential loss of Containment (Table F-1)

Table F-1 Fission Product Barrier Matrix

	Fuel Clad Barrier – Loss	Fuel Clad Barrier – Potential Loss	Reactor Coolant System Barrier – Loss	Reactor Coolant System Barrier – Potential Loss	Containment Barrier – Loss	Containment Barrier – Potential Loss
A Core Cooling / Heat Removal	☐ 1. CET readings > 1,200°F	☐ 1. CET readings > 700°F ☐ 2. RCS heat removal **cannot** be established **AND EITHER**: RCS pressure > PORV setpoint **OR** RCS subcooling < 25°F	None	☐ 1. OTCC flow established ☐ 2. RCS heat removal **cannot** be established **AND EITHER**: RCS pressure > PORV setpoint **OR** RCS subcooling < 25°F ☐ 3. Uncontrolled RCS cooldown and to left of Max Operating Pressure Curve (EOP Attachment 1, RCS Pressure Temperature Limits)	None	☐ 1. CET readings cannot be restored < 1,200°F within 15 min. ☐ 2. CET readings > 700°F **AND** Reactor vessel water level **cannot** be restored > RVLMS 10 in. alarm within 15 min.
B Inventory	None	☐ 3. RVLMS level < 10 in. alarm	☐ 1. RCS leak rate > available makeup capacity as indicated by a loss of RCS subcooling (< 25°F) ☐ 2. RUPTURED S/G results in an ECCS (SIAS) actuation	☐ 4. RCS leak rate > 50 gpm with letdown isolated	☐ 1. A Containment pressure rise followed by a rapid unexplained drop in Containment pressure ☐ 2. Containment pressure or sump level response **not** consistent with LOCA conditions ☐ 3. RUPTURED S/G is also faulted outside of Containment ☐ 4. Primary-to-secondary leakrate > 10 gpm **AND** UNISOLABLE or prolonged steam release from affected S/G to the environment	☐ 3. Containment pressure ≥ 50 psig and rising ☐ 4. Containment hydrogen concentration ≥ 4% ☐ 5. Containment pressure > 4.25 psig **AND cannot** meet **ANY** of the following conditions: • 2 Containment Spray Pumps Operating • 3 CACs Operating • 1 Containment Spray Pump and 2 CACs Operating
C Radiation / Coolant Activity	☐ 2. Containment radiation monitor (5317A/B) reading > 3,500 R/hr ☐ 3. Post-accident sample dose rate ≥ 40 mRem/hr (1 ft from sample) ☐ 4. Coolant activity > 300 µCi/cc DEQ I-131	None	☐ 3. Containment radiation monitor (5317A/B) reading > 6 R/hr (Note 8)	None	None	☐ 6. Containment radiation monitor (5317A/B) reading > 14,000 R/hr
D Isolation Status	None	None	None	None	☐ 5. Failure of **all** valves in ANY **one** line to close **AND** Direct downstream pathway to the environment exists after Containment isolation signal	None
E Judgment	☐ 5. **ANY** condition in the opinion of the Emergency Director that indicates loss of the fuel clad barrier	☐ 4. **ANY** condition in the opinion of the Emergency Director that indicates potential loss of the fuel clad barrier	☐ 4. **ANY** condition in the opinion of the Emergency Director that indicates loss of the RCS barrier	☐ 5. **ANY** condition in the opinion of the Emergency Director that indicates potential loss of the RCS barrier	☐ 6. **ANY** condition in the opinion of the Emergency Director that indicates loss of the Containment barrier	☐ 7. **ANY** condition in the opinion of the Emergency Director that indicates potential loss of the Containment barrier

Current Classification	EAL#:	Time Declared:
☐ UNUSUAL EVENT		
☐ ALERT		
☐ SITE AREA EMERGENCY		
☐ GENERAL EMERGENCY		

EAL Identifier

XXX.X
- Category (R, H, E, S, F, C)
- Emergency classification (G, S, A, U)
- Subcategory number (1 if no subcategory)
- Sequential number within subcategory/classification

Modes: 1 Power Operation | 2 Startup | 3 Hot Standby | 4 Hot Shutdown | 5 Cold Shutdown | 6 Refuel | D Defueled

Constellation Energy
Calvert Cliffs Nuclear Power Plant

ERPIP 3.0
Immediate Actions, Attachment 1
Emergency Action Level Criteria, Revision 0XX00
Page 1 of 2

Approved: ____________ Manager, Emergency Preparedness ____________ Date

MODE 1, 2, 3 or 4

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D-01