		GENERAL EMERGENCY	SITE AREA EMERGENCY	ALERT	UNUSUAL EVENT
R Abnorm. Rad Release / Rad Effluent	**1** Offsite Rad Conditions	**RG1.1** 1 2 3 4 5 6 D **ANY** gaseous 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)	**RS1.1** 1 2 3 4 5 6 D **ANY** gaseous 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)	**RA1.1** 1 2 3 4 5 6 D **ANY** gaseous or liquid monitor reading > Table R-1 column "Alert" 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)
		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	**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	**RA1.2** 1 2 3 4 5 6 D Confirmed sample analyses for gaseous or liquid releases *indicate concentrations or release rates* > 200 x *P-9* limits for ≥ 15 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 *P-9* limits for ≥ 60 min. (Note 2)
		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	**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		
	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: • R-12 Containment Vent Noble Gas • R-14 Plant Vent Noble Gas • R-2 Containment • R-5 Spent Fuel Pool	**RU2.1** 1 2 3 4 5 6 D Unplanned water level drop in a reactor refueling pathway as indicated by inability to restore and maintain level > SFP low water level alarm setpoint (Note 3) **AND** Area radiation monitor reading rise on **EITHER**: R-2 Containment **OR** R-5 Spent Fuel Pool
				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	**RU2.2** 1 2 3 4 5 6 D Unplanned area radiation reading *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 **EITHER** of the following areas requiring continuous occupancy to maintain plant safety functions: Control Room (R-1) **OR** CAS	
H Hazards & Other Condi-tions Affect-ing Plant Safety	**1** Natural or Destructive Phenomena			**HA1.1** 1 2 3 4 5 6 D **EITHER:** Confirmation of an earthquake of an intensity > 0.08 g per ER-SC.4 Earthquake Emergency Plan **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 6)	**HU1.1** 1 2 3 4 5 6 D Seismic event identified by **ANY two** of the following: • Red LED event indicator on Kinemetrics ETNA Digital Recorder indicates seismic event detected • Earthquake felt onsite • National Earthquake Information Center (Note 6)
				HA1.2 1 2 3 4 5 6 D Tornado striking or sustained *high winds* > 75 *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	**HU1.2** 1 2 3 4 5 6 D *Tornado* striking within Protected Area boundary **OR** Sustained high winds > 75 mph
				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	**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
				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	**HU1.4** 1 2 3 4 5 6 D Turbine failure resulting in casing penetration or damage to turbine or generator seals
				HA1.5 1 2 3 4 5 6 D Lake level > 253 ft **OR** Screen House Suction Bay water level < 16 ft or < 14.5 ft by manual level measurement	**HU1.5** 1 2 3 4 5 6 D Deer Creek flooding over entrance road bridge hand rail **OR** Lake level > 252 ft **OR** Screen House Suction Bay water level < 17 ft or < 15.5 ft by manual level measurement
				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	
	2 Fire or *Explosion*	None	None	**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 **ANY** Table H-1 area or Turbine Building (Note 4) **HU2.2** 1 2 3 4 5 6 D Explosion within the Protected Area
	3 Hazardous Gas	None	None	**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 *Release of toxic, corrosive, asphyxiant or flammable gases of* sufficient quantity to 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 offsite event
	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 safety functions **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 Supervision	**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 Supervision **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 Supervision **OR** A credible site-specific security threat notification **OR** A validated *notification from NRC providing information of* an aircraft threat
	5 Control Room Evacuation	None	**HS5.1** 1 2 3 4 5 6 D Control Room evacuation has been initiated ***AND*** Control of the plant **cannot** be established within 30 min.	**HA5.1** 1 2 3 4 5 6 D Control Room evacuation has been initiated	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 or 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 or 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 or 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		None	None	None	**EU1.1** N/A Damage to a loaded cask confinement boundary

Table R-1 Effluent Monitor Classification Thresholds

	Monitor	GE	SAE	ALERT	UE
GASEOUS	CNMT Vent Noble Gas (**R-12**)	N/A	N/A	N/A	7.4E+6 cpm w/ 1 fan 5.1E+6 cpm w/ 2 fans
	CNMT Vent Noble Gas Hi Range (**R-12A-7/9**)	1.8E+2 µCi/cc	1.8E+1 µCi/cc	1.8E+0 µCi/cc	N/A
	Plant Vent Noble Gas (**R-14**)	N/A	N/A	N/A	6.0E+5 cpm
	Plant Vent Noble Gas Hi Range (**R-14A-7/9**)	2.1E+1 µCi/cc	2.1E+0 µCi/cc	2.1E-1 µCi/cc	N/A
	Air Ejector Noble Gas (**R-15**)	N/A	N/A	N/A	6.3E+5 cpm
	Air Ejector Noble Gas Hi Range (**R-48**)	5.7E+2 µCi/cc	5.7E+1 µCi/cc	5.7E+0 µCi/cc	N/A
	Main Steam Line (**R-31/R-32**) 1 ARV 1 Safety 2 Safety 3 Safety 4 Safety	5.0E+3 mR/hr 2.3E+3 mR/hr 1.1E+3 mR/hr 7.7E+2 mR/hr 5.7E+2 mR/hr	5.0E+2 mR/hr 2.3E+2 mR/hr 1.1E+2 mR/hr 7.7E+1 mR/hr 5.7E+1 mR/hr	5.0E+1 mR/hr 2.3E+1 mR/hr 1.1E+1 mR/hr 7.7E+0 mR/hr 5.7E+0 mR/hr	8.0E+0 mR/hr 3.7E+0 mR/hr N/A N/A N/A
LIQUID	Liquid Radwaste Effluent (R-18)	N/A	N/A	N/A	3.6E+5 cpm *with no isolation*
	SFP HX Effluent (R-20A) (R-20B)	N/A N/A	N/A N/A	N/A N/A	4.0E+4 cpm 5.2E+3 cpm
	Turbine Bldg Flr Drains (R-21)	N/A	N/A	N/A	5.0E+4 cpm with no isolation
	Hi Cond Waste (R-22)	N/A	N/A	N/A	9.2E+4 cpm *with no isolation*

Table H-1 Safe Shutdown Areas

- Reactor Containment Building
- Auxiliary Building
- Control Building
- Intermediate Building
- Emergency Diesel Building(s)
- SAFW Building
- Screenhouse
- Cable Tunnel
- Battery Rooms

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

Constellation Energy

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Approved: _____ Manager, Emergency Preparedness _____ Date

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		GENERAL EMERGENCY	SITE AREA EMERGENCY	ALERT	UNUSUAL EVENT
C Cold SD/ Refuel System Malfunct.	**1** Loss of AC Power	**Table C-1 AC Power Sources** Onsite: • EDG 1A (Safeguard train A, Buses 14 & 18) • EDG 1B (Safeguard train B, Buses 16 & 17) Offsite: • Station Auxiliary Transformer 12A • Station Auxiliary Transformer 12B • Unit Auxiliary Transformer 11 backfeed (if currently established)		**CA1.1** 5 6 D Loss of **all** offsite and **all** onsite AC power, Table C-1, to 480V safeguards buses for ≥ 15 min. (Note 4)	**CU1.1** 5 6 D AC power capability to 480V safeguards buses reduced to a single power source, Table C-1, for ≥ 15 min. (Note 4) **AND** **Any** additional single power source failure will result in a complete loss of all 480V safeguards bus power
	2 Loss of *DC* Power			None	**CU2.1** 5 6 < 108 VDC on **required** 125 VDC buses for ≥ 15 min. *(Note 4)*
	3 RCS Level	**CG3.1** 5 6 RCS level **cannot** be monitored with core uncovery indicated by **ANY** of the following for ≥ 30 min. (Note 4): • Containment radiation R-29 or R-30 > 1.0E+02 R/hr • Erratic Source Range Nuclear Instrumentation indication • Unexplained level rise in **ANY** Table C-2 sump / tank attributable to RCS leakage **AND** **Any** Containment Challenge Indication, Table C-3	**CS3.1** 5 6 RCS level **cannot** be monitored with a loss of RCS inventory as indicated by **ANY** of the following for ≥ 30 min. (Note 4): • Containment radiation R-29 or R-30 > 1.0E+02 R/hr • Erratic Source Range Nuclear Instrumentation indication • Unexplained level rise in **ANY** Table C-2 sump / tank attributable to RCS leakage	**CA3.1** 5 6 Loss of inventory as indicated by RCS water level < 0 in. **OR** RCS level **cannot** be monitored for ≥ 15 min. **with** a loss of RCS inventory as indicated by an unexplained level rise in **ANY** Table C-2 sump / tank attributable to RCS leakage (Note 4)	**CU3.1** 5 RCS leakage results in the inability to maintain or restore RCS level within the target band established by procedure for ≥ 15 min. (Note 4) **CU3.2** 6 Unplanned RCS level drop below **EITHER** of the following for ≥ 15 min. (Note 4): Reactor Vessel flange (84 in. on loop level indicators) *(when the level band is established above the flange)* **OR** RCS level target band established by procedure (when the level band is established below the flange) **CU3.3** 6 RCS level **cannot** be monitored **with** a loss of RCS inventory as indicated by an unexplained level rise in **ANY** Table C-2 sump / tank attributable to RCS leakage
		Table C-2 RCS Leakage Indications • Containment Sump A • Containment Sump B • Auxiliary Building Sump Tank • Reactor Coolant Drain Tank (RCDT)			
	4 RCS Temp.	**Table C-3 Containment Challenge Indications** • Containment closure **not** established • Hydrogen concentration in Containment ≥ 4% • Unplanned rise in Containment pressure		**CA4.1** 5 6 An unplanned event results in **EITHER**: RCS temperature > 200°F for > Table C-4 duration **OR** RCS pressure increase > 10 psi due to an unplanned loss of decay heat removal capability (this condition is **not** applicable in solid plant conditions)	**CU4.1** 5 6 Unplanned event results in RCS temperature > 200°F **CU4.2** 5 6 Loss of **all** RCS temperature and RCS level indication for ≥ 15 *min. (Note 4)*
	5 Comm.	**Table C-4 RCS Reheat Duration Thresholds** RCS Status / Containment Closure Status / Duration Intact **AND not** reduced inventory / N/A / 60 min.* **Not** intact **OR** reduced inventory / Established / 20 min.* **Not established** / 0 min. * If an RCS heat removal system is in operation within this time frame and RCS temperature is being reduced, the EAL is **not** applicable	**Table C-5 Communications Systems** System / Onsite (internal) / Offsite (external) Commercial phone system: X / X Direct Dial POTS Lines (Blue Phones): X / X Plant Page Party system: X *Radios/Walkie Talkies*: X FTS 2001 telephone system (ENS, HPN): X Control Room Hard Wired Satellite Phone: X Control Room Emergency Cell Phone: X	**CU5.1** 5 6 D Loss of **all** Table C-5 onsite (internal) communication methods affecting the ability to perform routine operations **OR** Loss of **all** Table C-5 offsite (external) communication methods affecting the ability to perform offsite notifications **CU6.1** 5 6 An unplanned sustained positive startup rate observed on nuclear instrumentation
	6 Inadvertent *Criticality*				

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 shut down beyond that already allowed by Technical Specifications at the time of the event.
6. 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 Ginna Nuclear Power Plant. Provide the analyst with the following Ginna coordinates: **43° 16.7' north latitude, 77° 18.7' west longitude**.

EAL Identifier

XXX.X

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

MODE 5, 6 or D

D02