

Attachment 1

10 CFR 50.54(q)(5) Procedure Change Summary Analysis

Attachment 1

10 CFR 50.54(q)(5) Procedure Change Summary Analysis

Procedures/Titles

Exelon Generation Company, LLC (Exelon) is submitting the following Emergency Plan Addendum revision for the R. E. Ginna Nuclear Power Plant (Ginna):

- EP-AA-1012, Addendum 3, Revision 5, "*R. E. Ginna Nuclear Power Plant Emergency Action Levels*"

Description of Procedures

EP-AA-1012, Addendum 3, describes the Emergency Action Levels (EALs) implemented at Ginna for entering Emergency Classification Levels (ECLs).

Description of Changes

R. E. Ginna Nuclear Power Plant made changes to its Offsite Dose Calculation Manual (ODCM) ventilation flow rates for the containment and Main Stack ventilation in accordance with a site-approved engineering evaluation. The change to the ODCM required revisions to the P-9, "Radiation Monitoring System," analysis limits and EP-AA-1012, Addendum 3, Table R-1, "Effluent Monitor Classification Thresholds." A supporting calculation was developed to incorporate the updated ODCM ventilation flow rates in accordance with approved corporate and station processes and procedures. The supporting calculation required a revision to EP-AA-1012, Addendum 3, Table R-1 which affects the EAL thresholds for the following Radiological Effluent EALs RU1.1, RA1.1, RS1.1, and RG1.1. The change to the ODCM ventilation flows also required that several other calculations be revised. These calculation revisions required the P-9, "Radiation Monitoring System," Attachment 1, "Radiation Monitor Alarm Setpoints," to be revised. The P-9 limits contained in Attachment 1 are referenced in EALs RU1.2 (two-times P-9 limits), and RA1.2 (200-times P-9 limits) and as such the change to the P-9, Attachment 1 required an evaluation to determine if the changes involved a reduction in effectiveness of the Emergency Plan.

The table below provides a summary of the EAL threshold values included in Revision 5.

**Summary of EAL Threshold Value Changes Used in Table R-1
 of EP-AA-1012, Addendum 3, Revision 5**

Monitor Name	Detector Number	GE EAL Threshold (μCi/cc)	SAE EAL Threshold (μCi/cc)	Alert EAL Threshold (μCi/cc)	UE EAL Threshold (cpm)
Containment Vent Noble Gas Monitor	R-12	N/A	N/A	N/A	6.54E+06 (1 Fan)
		N/A	N/A	N/A	4.54E+06 (2 Fans)

Monitor Name	Detector Number	GE EAL Threshold ($\mu\text{Ci/cc}$)	SAE EAL Threshold ($\mu\text{Ci/cc}$)	Alert EAL Threshold ($\mu\text{Ci/cc}$)	UE EAL Threshold (cpm)
Containment Vent Noble Gas Hi Range Monitor	R-12A	1.40E+02	1.40E+01	1.40E+00	N/A
Plant Vent Noble Gas Monitor	R-14	N/A	N/A	N/A	5.80E+05
Plant Vent Noble Gas Hi Range Monitor	R-14A	1.27E+01	1.27E+00	1.27E-01	N/A
Air Ejector Noble Gas Monitor	R-15	N/A	N/A	N/A	5.30E+05
Air Ejector Noble Gas Hi Range Monitor	R-48	1.20E+02	1.20E+01	1.20E+00	N/A

The table below provides a summary of the EAL threshold values included in the previous revision (i.e., Revision 4) for comparison purposes.

Summary of EAL Threshold Values Used in Table R-1 of EP-AA-1012, Addendum 3, Revision 4

Monitor Name	Detector Number	GE EAL Threshold ($\mu\text{Ci/cc}$)	SAE EAL Threshold ($\mu\text{Ci/cc}$)	Alert EAL Threshold ($\mu\text{Ci/cc}$)	UE EAL Threshold (cpm)
Containment Vent Noble Gas Monitor	R-12	N/A	N/A	N/A	7.4E+06 (1 Fan)
		N/A	N/A	N/A	5.1E+06 (2 Fans)
Containment Vent Noble Gas Hi Range Monitor	R-12A	1.1E+02	1.1E+01	1.1E+00	N/A
Plant Vent Noble Gas Monitor	R-14	N/A	N/A	N/A	6.0E+05
Plant Vent Noble Gas Hi Range Monitor	R-14A	1.3E+01	1.3E+00	1.3E-01	N/A
Air Ejector Noble Gas Monitor	R-15	N/A	N/A	N/A	6.3E+05
Air Ejector Noble Gas Hi Range Monitor	R-48	1.4E+02	1.4E+01	1.4E+00	N/A

All of the new threshold values included in Revision 5 are of the same magnitude as the previous values.

The table below summarizes the changes made to P-9, Attachment 1, based on the new ventilation flows and the results of revised calculations.

Summary of P-9, Attachment 1, Revision 101 Changes

EIN	Name	Release Rate Limit	High Alarm Setpoint	Warning Alarm Setpoint
R-10A	Cnmt Vent Iodine (1 fan) (2 fan) (Minipurge)	6.92E2 cpm 7.58E2 cpm N/A	2.77E2 cpm above bkg 3.03E2 cpm above bkg 1.40E4 cpm above bkg	1.38E2 cpm above bkg 1.51E2 cpm above bkg 7.00E3 cpm above bkg
R-10B	Plant vent Iodine	1.78E2 cpm	8.00E1 cpm above bkg	4.00E1 cpm above bkg
R-11	Cnmt Vent Particulate (1 fan) (2 fan) (Minipurge)	4.41E4 cpm 5.03E4 cpm N/A	1.76E4 cpm 2.01E4 cpm 2.00E4 cpm	0.88E4 cpm 1.01E4 cpm 1.00E4 cpm
R-12	Cnmt Vent Noble Gas (1 fan) (2 fan) (Minipurge)	3.27E6 cpm 2.27E6 cpm N/A	1.31E6 cpm 0.91E6 cpm 1.50E6 cpm	6.55E5 cpm 4.54E5 cpm 7.50E5 cpm
R-13	Plant Vent Particulate	6.14E3 cpm	2.50E3 cpm	1.30E3 cpm
R-14	Plant Vent Noble Gas	2.9E5 cpm	1.20E5 cpm	6.0E4 cpm
R-15	Air Ejector & Gland Seal Exhaust	2.65E5 cpm	1.06E5 cpm	5.30E4 cpm
R-48	Air Ejector/Gland Steam Monitor High Range	1.2E0 μCi/cc	8.18E0 μCi/cc	8.18E-01 μCi/cc (st pt #1)

EIN	PPCS Point	Name	Release Rate Limit	High Alarm Setpoint	Warning Alarm Setpoint
RM-12A	R12APART	Particulate Channel	1.33 μCi/sec	1.76E-01 μCi	8.80E-02 μCi
	R12AIODN	Iodine 131 Channel	5.7E-02 μCi/sec	7.56E-03 μCi	3.78E-03 μCi
	R12AGAS	Noble Gas Channel	1.79E-01 μCi/cc (1 fan) 1.24E-01	7.2E-02 μCi/cc (1 fan) 4.8E-02 μCi/cc (2 fan)	3.6E-02 μCi/cc (1 fan) 2.4E-02 μCi/cc

EIN	PPCS Point	Name	Release Rate Limit	High Alarm Setpoint	Warning Alarm Setpoint
			$\mu\text{Ci/cc}$ (2 fan)		(2 fan)
RM-14A	R14APART	Particulate Channel	$1.06\text{E}0 \mu\text{Ci/sec}$	$4.7\text{E}-02 \mu\text{Ci}$	$2.4\text{E}-02 \mu\text{Ci}$
	R14AIODN	Iodine 131 Channel	$4.60\text{E}-02 \mu\text{Ci/sec}$	$2.05\text{E}-03 \mu\text{Ci}$	$1.03\text{E}-03 \mu\text{Ci}$
	R14AGAS	Noble Gas Channel	$1.64\text{E}-02 \mu\text{Ci/cc}$	$6.56\text{E}-03 \mu\text{Ci/cc}$	$3.28\text{E}-03 \mu\text{Ci/cc}$

The table below provides a summary of the values included in the previous revision of P-9, Attachment 1 (i.e., Revision 10000), for comparison purposes.

Summary of P-9, Attachment 1, Revision 10000

EIN	Name	Release Rate Limit	High Alarm Setpoint	Warning Alarm Setpoint
R-10A	Cnmt Vent Iodine (1 fan) (2 fan) (Minipurge)	$7.88\text{E}2 \text{ cpm}$ $8.56\text{E}2 \text{ cpm}$ N/A	$3.15\text{E}2 \text{ cpm above bkg}$ $3.42\text{E}2 \text{ cpm above bkg}$ $1.40\text{E}4 \text{ cpm above bkg}$	$1.60\text{E}2 \text{ cpm above bkg}$ $1.70\text{E}2 \text{ cpm above bkg}$ $7.00\text{E}3 \text{ cpm above bkg}$
R-10B	Plant vent Iodine	$1.82\text{E}2 \text{ cpm}$	$8.00\text{E}1 \text{ cpm above bkg}$	$4.00\text{E}1 \text{ cpm above bkg}$
R-11	Cnmt Vent Particulate (1 fan) (2 fan) (Minipurge)	$5.02\text{E}4 \text{ cpm}$ $5.68\text{E}4 \text{ cpm}$ N/A	$2.00\text{E}4 \text{ cpm}$ $2.30\text{E}4 \text{ cpm}$ $2.00\text{E}4 \text{ cpm}$	$1.00\text{E}4 \text{ cpm}$ $1.20\text{E}4 \text{ cpm}$ $1.00\text{E}4 \text{ cpm}$
R-12	Cnmt Vent Noble Gas (1 fan) (2 fan) (Minipurge)	$3.71\text{E}6 \text{ cpm}$ $2.68\text{E}6 \text{ cpm}$ N/A	$1.50\text{E}6 \text{ cpm}$ $1.00\text{E}6 \text{ cpm}$ $1.50\text{E}6 \text{ cpm}$	$7.50\text{E}5 \text{ cpm}$ $5.00\text{E}5 \text{ cpm}$ $7.50\text{E}5 \text{ cpm}$
R-13	Plant Vent Particulate	$6.27\text{E}3 \text{ cpm}$	$2.50\text{E}3 \text{ cpm}$	$1.30\text{E}3 \text{ cpm}$
R-14	Plant Vent Noble Gas	$3.0\text{E}5 \text{ cpm}$	$1.20\text{E}5 \text{ cpm}$	$6.0\text{E}4 \text{ cpm}$
R-15	Air Ejector & Gland Seal Exhaust	$3.18\text{E}5 \text{ cpm}$	$1.27\text{E}5 \text{ cpm}$	$6.35\text{E}4 \text{ cpm}$
R-48	Air Ejector/Gland Steam Monitor High Range	$1.4\text{E}0 \mu\text{Ci/cc}$	$9.78\text{E}0 \mu\text{Ci/cc}$	$9.78\text{E}-01 \mu\text{Ci/cc}$ (st pt #1)

EIN	PPCS Point	Name	Release Rate Limit	High Alarm Setpoint	Warning Alarm Setpoint
RM-12A	R12APART	Particulate Channel	1.33 $\mu\text{Ci}/\text{sec}$	1.70E-01 μCi	8.00E-02 μCi
	R12AIODN	Iodine 131 Channel	5.7E-02 $\mu\text{Ci}/\text{sec}$	7.60E-03 μCi	3.80E-03 μCi
	R12AGAS	Noble Gas Channel	2.00E-01 $\mu\text{Ci}/\text{cc}$ (1 fan) 1.50E-01 $\mu\text{Ci}/\text{cc}$ (2 fan)	8.00E-02 $\mu\text{Ci}/\text{cc}$ (1 fan) 6.00E-02 $\mu\text{Ci}/\text{cc}$ (2 fan)	4.00E-02 $\mu\text{Ci}/\text{cc}$ (1 fan) 3.00E-02 $\mu\text{Ci}/\text{cc}$ (2 fan)
RM-14A	R14APART	Particulate Channel	1.06E0 $\mu\text{Ci}/\text{sec}$	4.5E-02 μCi	2.2E-02 μCi
	R14AIODN	Iodine 131 Channel	4.60E-02 $\mu\text{Ci}/\text{sec}$	1.90E-03 μCi	9.80E-04 μCi
	R14AGAS	Noble Gas Channel	1.67E-02 $\mu\text{Ci}/\text{cc}$	6.68E-03 $\mu\text{Ci}/\text{cc}$	3.34E-03 $\mu\text{Ci}/\text{cc}$

All of the new values included in Revision 101 are of the same magnitude as the previous values.

In addition to the threshold value changes noted above, the Reference section of EALs RU1.1, RA1.1, RS1.1, and RG1.1 have been revised to include a reference to the new calculation for the Table R-1 EAL threshold values,

As noted above, the changes to the ventilation flows are based on a site-approved engineering evaluation.

Description of How the Changes Still Comply with Regulations

The changes to the ODCM ventilation flow rates for the containment and Main Stack ventilation are based on a site-approved engineering evaluation. The changes were developed in accordance with approved corporate and station processes and procedures. The new threshold values and P-9 limits are of the same or similar magnitude as the previous values. Revising the Reference section of EALs RU1.1, RA1.1, RS1.1, and RG1.1 as noted above is administrative and ensures that the supporting calculation for the new values is appropriately referenced. Updating the EAL threshold values based on an approved engineering analysis and updating the Reference section for the affected EALs does not alter the meaning or intent of the basis of the approved EALs. The determination of the threshold value remains consistent with the NRC-approved threshold definition and NRC requirements and commitments continue to be met.

Therefore, the changes discussed continue to satisfy applicable Emergency Planning requirements established in 10 CFR 50.47, 10 CFR 50, Appendix E and the program element guidance of NUREG-0654.

Description of Why the Changes are Not a Reduction in Effectiveness (RIE)

As discussed above, the changes to the ventilation flows are based on a site-approved engineering evaluation. Updating the EAL threshold values based on approved engineering analysis and updating the Reference section for the EAL does not alter the meaning or intent of the basis of the approved EALs. The determination of the threshold values remains consistent with the NRC-approved threshold definition. No existing emergency preparedness requirements have been deleted or minimized, and applicable regulations and commitments continue to be met. Emergency response capabilities are maintained and not adversely impacted by the changes. Therefore, these changes would not result in a reduction of effectiveness of the Emergency Plan for Ginna.