

Ref #	Risk Identification			Qualitative Analysis of Spill				Risk Response Strategy		
	Equipment	Pollutant	Capacity / No.	Activity	Probability	Impact	Risk Matrix	Risk Owner	Mitigation Strategy	Additional Info.
1	GE ProLac Transformer	Luminol Oil	386 Gallons for Aux Transformer, 606 Gallons for each ISO Transformer	Construction	Low	High		GE	Transformer Pad Mount tank provides containment. On-site spill plan to address spills and clean-up.	These ultra-pure fluids are inherently biodegradable in natural environments, free of carcinogenic polynuclear aromatics (PNAs) and virtually non-toxic. As well, LUMINOL's negative gassing tendency and higher flash point help reduce the risk of fire and explosion.
				Operation	Low	High		Convergent E&P	Transformer Pad Mount tank provides containment. Maintenance plan to verify transformer health. On-site spill plan to address spills and clean-up.	Pad Mount transformers are used throughout the world in many applications without any means of external containment or permeable barriers. They have a very high safety record with leaks and spills being a very low risk.
2	RIU - PCS Inverter	Zerex G05 coolant	1.5 x gallons of liquid 50% coolant/50% water for each inverter	Construction	Low	High		GE	Cooling system provides for containment. Inverter enclosure provides additional containment. On-site spill plan to address spills and clean-up.	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.
				Operation	Low	High		Convergent E&P	Cooling system provides for containment. Inverter enclosure provides additional containment. On-site spill plan to address spills and clean-up.	
3	Battery RSU HVAC System	Refrigerant - R-401A	2 x HVAC Units (Per RSU)	Construction	Low	Low		GE	Cooling system provides for containment. PBS enclosure provides additional containment. Refrigerant turns to gas in the event of a leak. On-site spill plan to address spill clean-up.	Product dissipates upon release. Protected personnel should remove ignition sources and shut off leak, if without risk, and provide ventilation. Unprotected personnel should not return to the affected area until air has been tested and determined safe, including low-lying areas.
				Operation	Low	Low		Convergent E&P	Cooling system provides for containment. PBS enclosure provides additional containment. Refrigerant turns to gas in the event of a leak. On-site spill plan to address spill clean-up.	
4	Battery RSU HVAC System	Compressor Oil	2 x HVAC Units (Per RSU)	Construction	Low	Low		GE	Cooling system provides for containment. PBS enclosure provides additional containment. On-site spill plan to address spill clean-up.	Oil is biodegradable in natural environments, free of carcinogenic polynuclear aromatics (PNAs) and virtually non-toxic.
				Operation	Low	Low		Convergent E&P	Cooling system provides for containment. PBS enclosure provides additional containment. On-site spill plan to address spill clean-up.	
5	ESPC HVAC System (Control E-House)	ESPC HVAC refrigerant- R134a	1 x Unit	Construction	Low	Low		GE	Cooling system provides for containment. ESPC enclosure provides additional containment. Refrigerant turns to gas in the event of a leak. On-site spill plan to address spill clean-up.	Product dissipates upon release. Protected personnel should remove ignition sources and shut off leak, if without risk, and provide ventilation. Unprotected personnel should not return to the affected area until air has been tested and determined safe, including low-lying areas.
				Operation	Low	Low		Convergent E&P	Cooling system provides for containment. ESPC enclosure provides additional containment. Refrigerant turns to gas in the event of a leak. On-site spill plan to address spill clean-up.	
6	Fire Suppression Agent and propellant	Stat-X	1 x System	Construction	Low	Low		GE	Fire Suppression System aerosol tanks provide for containment. Stat-X turns to gas in the event of a leak. On-site spill plan to address spill clean-up.	Product dissipates upon release. If a leak occurs, vapours will concentrate near the floor and displace Oxygen causing suffocation
				Operation	Low	Low		Convergent E&P	Fire Suppression System aerosol tanks provide for containment. Stat-X turns to gas in the event of a leak. On-site spill plan to address spill clean-up.	
7	LG Chem - DC Battery System	Sealed Lithium-ion	380 Modules Per RSU (Each module is made of 42 cells)	Construction	Low	Low		GE	Sealed battery has no free moving electrolyte, however the Battery Enclosure provides for containment. On-site spill plan to address spill clean-up.	In case of cell damage, possible release of dangerous substances and a flammable gas mixture. This material is not considered hazardous by the OSHA Hazard Communication Standard 29CFR 1910.1200
				Operation	Low	Low		Convergent E&P	Sealed battery has no free moving electrolyte, however the Battery Enclosure provides for containment. Maintenance plan, and real time system monitoring / control system verify battery health.	
8	ESPC- UPS Battery	Lead Acid	1 x Unit	Construction	Low	Low		GE	Sealed battery has no free moving electrolyte, however the Battery Enclosure provides for containment. On-site spill plan to address spill clean-up.	
				Operation	Low	Low		Convergent E&P	Sealed battery has no free moving electrolyte, however the Battery Enclosure provides for containment. On-site spill plan to address spill clean-up.	
9	BIC Battery (Control E-House)	Sealed Lithium-ion	6 x Units	Construction	Low	Low		GE	Sealed battery has no free moving electrolyte, however the Battery Enclosure provides for containment. On-site spill plan to address spill clean-up.	In case of cell damage, possible release of dangerous substances and a flammable gas mixture. This material is not considered hazardous by the OSHA Hazard Communication Standard 29CFR 1910.1200
				Operation	Low	Low		Convergent E&P	Sealed battery has no free moving electrolyte, however the Battery Enclosure provides for containment. Maintenance plan, and real time system monitoring / control system verify battery health.	
10	Medium Voltage Switchgear UPS (if required)	Lead Acid	1 x Unit	Construction	Low	Low		GE	Sealed battery with electrolyte, however the Enclosure provides for containment. On-site spill plan to address spill clean-up.	Use baking soda to neutralize lead-acid spills. These types of battery can leak a strong acid, which eats through clothing. Cover spill liberally with baking soda, until newly added baking soda does not cause additional fizzing or bubbling. Clean up remaining residue using a thick paste made from baking soda and water.
				Operation	Low	Low		Convergent E&P	Sealed battery with electrolyte, however the Enclosure provides for containment. On-site spill plan to address spill clean-up.	