DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

P009137336

FACILITY: XALT Energy, LLC		**SRN / ID:** P0091
LOCATION: 2700 S Saginaw Rd, MIDLAND		**DISTRICT:** Saginaw Bay
CITY: MIDLAND		**COUNTY:** MIDLAND
CONTACT: Scott Wright , Director of Quality		**ACTIVITY DATE:** 10/25/2016
STAFF: Sydney Bruestle	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MINOR
SUBJECT: Onsite inspection to determine compliance with PTI 72-10B and all other applicable state and federal air quality regulations.		
RESOLVED COMPLAINTS:		

Xalt produces two different battery chemistries, one cathode as nickel magnesium cobalt and the anode as graphite and the other with the anode as lithium titanate oxide.

Following the presentation Mr. Alsgaard gave me a tour of the facility and described the processes in the permit.The Anode and Cathode production areas are separated until the cell assembly area. After the tour we reviewed records onsite for the following emission units (a spreadsheet of all the emission factors use for each unit is attached).

Emission Unit: EUBINDER

Description: Binder raw material handling and mixing consisting of storage tanks and mix tanks

Emission Unit	Emission Limit	Method of demonstrating compliance	Design/Equipment Parameters	Monitoring/Record Keeping	Records Reviewed/Compliance Status
EUBINDER	66 lbs/year (based on a 12 month rolling timer period **Actual: August 2016: 4.18 lbs/yr March 2016: 5.94 lbs/yr**	(one stack SV003) Emission Factor: 1 X 10 ^5 kg VOC/KG binder	Shall not operate EUBINDER mixing or storage tank unless blanketing system and pipe-away pressure relief valve (PRV) system are installed, maintained, and operated in a satisfactory method	Calculate VOC emission rates from EUBINDER each calendar month and 12 month rolling time period	Yes/Compliance

Emission Unit: **EUANODE**

Description: Anode and binder dry ingredient material handling and mixing, and anode coating and storag and manufacturing tanks.

Emission Unit	Emission Limit	Method of demonstrating compliance	Design/Equipment Parameters	Monitoring/Record Keeping	Records Reviewed/Compliance Status
			Shall not operate EUANODE unless the DC-1125 (dust		

			collectors) and FL-1125(HEPA filters) control devices are installed, maintained, and operated in a satisfactory manner	Shall record the pressure drop for each dust collector for EUANODE on a calendar day basis	August 1, 2016 : 3.24 mmBar 2.28 mmbar August 31, 2016: 4.18 mmbar 2.26 mmbar
EUANODE	PM 0.002 lbs per 1000 lbs of exhaust PM10 0.011 pph PM2.5 0.011 pph	*GC* 13	Shall not operate EUANODE coating manufacturing or storage tanks unless blanketing system and pipe-away pressure relief valve (PRV) system are installed, maintained, and operated in a satisfactory method	Shall monitor the dust collector emission points to verify the filters are operating properly, by taking visible emission readings for EUANODE a minimum of once per calendar month	Visible emissions are monitored on the roof or in the parking lot
				Shall keep records off all visible emission readings for EUANODE	Yes/Compliance

Emission Unit: **EUCATHODE**

Description: Cathode dry ingredient material handling and mixing, and cathode coating storage and manufacturing tanks.

Emission Unit	Emission Limit	Method of demonstrating compliance	Design/Equipment Parameters	Monitoring/Record Keeping	Records Reviewed/Compliance Status
EUCATHODE	PM 0.001 lbs per 1000 lbs of exhaust gas PM10 0.0014 pph PM2.5 0.0014 pph	GC 13	The permittee shall not operate EUCATHODE dry material operations unless dust collectors (DC-1170) and HEPA filters (FL-1170) are installed maintained and operated	Shall record the pressure drop for each dust collector for EUCATHODE on a calendar day basis	August 1, 2016: 5.2 mmbar 2.52 mmbarr August 31, 2016: 6.48 mmbar 2.66 mmbar
			Devide to record pressure drop for EUCATHODE on a daily basis	Shall monitor the dust collector emission points to verify the filters are operating properly, by taking visible emission readings for EUCATHODE a minimum of once per calendar month	SV007 visible emissions are recorded from the roof/parking lot at least once a month
			Shall not operate EUCATHODE coating manufacturing or storage tanks unless blanketing system and pipe-away pressure relief valve (PRV) system are installed, maintained, and operated in a satisfactory method	Shall keep records off all visible emission readings for EUCATHODE	Yes/ Compliance

Emission Unit: **EUCELLPACK**

Description: Cell Pouch formation and degas operations

Emission Unit	Emission Limit	Method of demonstrating compliance	Monitoring/Record Keeping	Records Reviewed/Compliance Status
EUCELLPACK	VOC 8.6 tpy 12 month rolling time period **August 2016: 0.279 tpy Feb 2016: 0.201 tpy**	How do you show you meet the VOC limit **Emission Factor: 0.50 kg VOC/ KG adhesive compound used**	The permittee shall keep records of the adhesive compound used in EUCELLPACK on a monthly averaging period: a) Pounds or gallons of each adhesive compound used b) Where applicable, the amount (in pounds or gallons) of adhesive compound reclaimed, recovered, recycled, or disposed of c) VOC emission calculations determining the annual emission rate in tons per 12 month rolling time period as determined at the end of each calendar month	The company does not recycle or reclaim adhesive at this time. Compliance
			The permittee shall calculate the VOC emission rate from EUCELLPACK monthly for the preceding 12 month rolling time period	Yes/ Compliance

Emission Unit: **EUCELLSTACK**

Description: Cell stacking operations utilizing solvent based adhesives and cleanup solvents

Emission Unit	Emission Limit	Method of demonstrating compliance	Monitoring/Record Keeping	Records Reviewed/Compliance Status
EUCELLSTACK	VOC 13.2 tpy 12 month rolling time period **January 2016: 0.2 tpy August 2016: 0.076**	How do you show you meet the VOC limit	The permittee shall keep records of the adhesive compound used in EUCELLSTACK on a monthly averaging period: a) Pounds or gallons of each adhesive compound used **(Janurary 2016 5 gallons)** **b) Where applicable, the amount (in pounds or gallons) of adhesive compound reclaimed (do not reclaim adhesive)** **c) VOC emission calculations determining the annual emission rate in tons per 12 month rolling time period as determined at the end of each calendar month**	Yes/Compliance
			The permittee shall keep the following information on a monthly basis for the use of reducer and clean-up solvents associated with EUCELLSTACK a) Gallons of each solvent used and reclaimed b)VOC content, in pounds per gallon, of each solvent used c) VOC mass emission calculations determining the annual emission rate in tons per 12 month rolling time period d) calculation of the percentage of reducer and clean-up solvents recovered, reclaimed, recycled, or disposed of	Yes/compliance/plan to get new PTI

X alt energy is tracking reducer and clean up solvents on a facility wide basis, not for each unit as the permit requires. I am allowing this because emissions from reducer and cleanup solvent use do not exit through the stack vents of EUCELLSTACK as the permit describes. The clean up solvent /reducer emissions vent to the atmosphere through several roof vents through out the facility. X alt plans to modif the permit to match how they track the solvent use and resulting VOC emissions. They will continue to track the VOC emissions for the entire facility as a whole.

Emission Unit: **EUELECTROLYTE**

Description: Cell assembly operations including addition of electrolyte material to pouches and sealing of pouches.

Emission Unit	Emission Limit	Method of demonstrating compliance	Monitoring/Record Keeping	Records Reviewed/Compliance Status
	VOC 18.5 tpy		The permittee shall keep a record of the electrolyte used in EUELECTROLYTE on a monthly averaging period: a) Pounds or gallons of electrolytes b) Where applicable, the amount (in pounds or gallons) of electrolyte reclaimed c) VOC emission calculations determining	*Yes/Compliance*

EUELECTROLYTE	12 month rolling time period **August 2016 0.567 tpy January 2016 0.394 tpy**	SV 11 A-E emission factor: 0.0149 kg VOC/ Kg processed electrolyte SV11 F-J 0.0001 kg VOC/kg processed electrolyte	the annual emissionrate in tons per 12 month rolling time period	
			The permittee shall keep the following information on a monthly basis for the use of reducer and clean-up solvents associated with EUELECTROLYTE a) Gallons of each solvent used and recovered, reclaimed, recycled or disposed of b)VOC content, in pounds per gallon, of each solvent used c) VOC mass emission calculations determining the annual emission rate in tons per 12 month rolling time period at the end of each calendar month	*Yes/compliance/plan to get a new PTI*

X alt energy is tracking reducer and clean up solvents on a facility wide basis, not for each unit as the permit requires. I am allowing this because emissions from reducer and cleanup solvent use do not exit through the stack vents of EUELECTROLYTE as the permit describes. The clean up solvent /reducer emissions vent to the atmosphere through several roof vents through out the facility. X alt plans to modify the permit to match how they track the solvent use and resulting VOC emissions. They will continue to track the VOC emissions for the entire facility as a whole.

Emission Unit: **FGCOATING**

Description: Anode and Cathode roll coating operations followed by drying operations

Flexible Group	Emission Limit	Method of demonstrating compliance	Design/Equipment Parameters	Monitoring/Record Keeping	Records Reviewed/Compliance Status
FGCOATING	VOC 2.2 tpy	How do you show you meet the VOC limit	The permittee shall not operate EUANCOATING OR EUCACOATING unless FG COATING solvent recovery system is installed, maintained, and operated in a satisfactory manner.	The permittee shall record the solvent recovery system condenser outlet temp on a calendar day basis	Yes/Compliance
			Temperature monitoring device to measure solvent recovery system condenser outlet temperature on a daily basis	The permittee shall record the solvent recovery system concentrator desorption inlet temperature on a calendar day basis **August 2, 2016 190 C August 31, 2016 190 C**	Yes/Compliance
	August 2016: 0.058 tpy	Emission Factors: SV001 A-F 0.025 kg VOC/Kg solvent		The permittee shall keep a record of the solvent used in FGCOATING on a monthly averaging period:	

	January 2016: 0.096 tpy	SV012 A-B 1.00 kg VOC/kg solvent		a) Tons or gallons of solvent used b) the amount in tons or gallons of solvent recovered, reclaimed, recycled or disposed of c)VOC emission calculations determining the annual emission rate in tons per 12 month rolling time period as determined at the end of each calendar month	Yes/Compliance

X alt energy is currently working on a PTI modification to update how they track the VOC emissions and th use of cleanup solvent/reducer. They plan to submit this application by the end of November 2016. at the time of this inspection it appeared the facility was in compliance with PTI 72-10B and all other applicable federal and state air quality regulations.

NAME [signature] DATE 11/10/16 SUPERVISOR C. Hare