

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

B857354500

FACILITY: Great Lakes Gas Trans Station #11 (TransCanada #11)		SRN / ID: B8573
LOCATION: 10339 GREAT LAKES RD, BOYNE FALLS		DISTRICT: Gaylord
CITY: BOYNE FALLS		COUNTY: CHARLEVOIX
CONTACT:		ACTIVITY DATE: 07/29/2020
STAFF: Bill Rogers	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Scheduled inspection and record review for FCE		
RESOLVED COMPLAINTS:		

On Wednesday, July 29, 2020, I inspected Great Lakes Gas Transmission's Boyne Falls Compressor Station near Boyne Falls. Mr. Dennis Beehler showed me around. Mr. Bruce Bendes provided records to review. The inspection and records review were to determine compliance with the facility's permit, MI-ROP-B8573-2019, reissued May 29, 2019.

The facility permit includes three emission units:

- EUUNIT1101 and EUUNIT1102, two natural gas fired Rolls-Royce Avon 76G gas turbine units rated at 16,000 horsepower each, driving natural gas compressors to move natural gas down a pipeline. These are combined into flexible group FGAVON in the permit.
- EUAPU, a 408 hp natural gas fired, spark ignition rich burn reciprocating internal combustion engine.

In previous inspections we also checked on a natural gas fired boiler in the control room-office-shop building. This is still in place, but is no longer covered in the ROP. While renewing the ROP we had determined it was exempt from permit requirements.

EUAPU

Table EUAPU, Condition IV.1, requires the engine be equipped with a non-resettable hour meter. The engine has a Hobbs brand hour meter with no reset button. It indicated 1630 total hours of operation. This number is consistent with facility engine use records GLGT provided us.

Condition VI.2 requires logging hours of operation once per calendar month. This is being done. The company provided us with copies of the engine use log. The log shows the company runs the engine about half an hour to an hour most months. For the period covered by the log we have, the engine was only run for test and maintenance purposes.

Condition VI.3 requires a maintenance log. This is being kept. GLGT provided us with copies of recent pages of this log.

Condition IX.1 requires changing the oil and filter each year or 500 hours of operation. Condition IX.2 requires inspecting spark plugs. IX.3 requires inspecting hoses and belts. A compliance checklist GLGT provided us states all this was done. In addition maintenance receipts indicate several hoses, hose clamps, and gaskets were replaced in tracking down a coolant leak. Required inspections were performed most recently 7/10/2020.

FGAVONS

Table FGAVONS, Condition I.1, sets an emission limit of 82 parts per million of nitrogen oxides (NOx) by volume. During the stack test conducted on Wednesday, December 7, 2016, EUUNIT1101 emitted 56.72 PPM and EUUNIT1102 emitted 63.40 PPM of NOx. This complies with the permit condition.

Condition I.2 sets an emission limit of 61.2 pounds NOx per unit per hour. During the stack test EUUNIT1101 emitted 31.31 pounds per hour and EUUNIT1102 emitted 37.75 pounds per hour of NOx. This complies with the permit condition.

Condition I.3 sets an emission limit of 268 tons of NOx per unit per year. Emission data provided by Great Lakes Gas Transmission, shows that as of June of this year Unit 1101 had emitted 35.39 tons per 12 month rolling time period and Unit 1102 had emitted 13.19 tons of NOx per 12 month rolling time period. This complies with the permit condition.

Condition I.4 sets an emission limit of 200 parts per million of carbon monoxide (CO) by volume. During the stack test, EUUNIT1101 emitted 120.58 parts per million and EUUNIT1102 emitted 147.69 parts per million of CO. This complies with the permit limit.

Condition I.5 sets an emission limit of 140 pounds of CO per unit per hour. During the stack test, EUUNIT1101 emitted 80.24 pounds per hour and EUUNIT1102 emitted 87.86 pounds per hour of CO. This complies with the permit limit.

Conditions V.1 and V.2 require stack testing for NOx and CO, respectively, each 5 years. The most recent series of stack tests were completed Wednesday, December 7, 2017, less than 5 years before this inspection. This complies with the permit condition.

Condition VI.1 requires recording hours of operation, fuel consumption, NOx emissions in tons per month and NOx emissions in tons per year. Example records provided by Great Lakes Gas Transmission show all the information required by this permit condition.

Conditions VIII.1 and VIII.2 require stacks with a minimum height above the ground of 45 feet and "maximum exhaust dimensions" of 135.6 inches. We determined in past inspections that the stacks at this site complied with this condition. They have not changed, so they should still comply with it.

COMMENTS

The facility appears unchanged from previous inspections. Maintenance appears to be very good.

Due to the current pandemic, this was an announced inspection.



SAGINAW MI BRANCH
722 N. OUTER DR.
SAGINAW, MI 48601-
(989)752-6200

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** CHARGE **

DATE	CUSTOMER ORDER NO.	DATE OF SERVICE	PHONE NUMBER	PLANT NO.	EQUIPMENT MAKE
20-JUL-2020	4502039977		V25		
EQUIPMENT NO.	EMP NO.	EST. DATE	ENGINE SERIAL NO.	YR. NO.	EQUIPMENT MODEL
292502		21-JAN-2020	15015830		
REF. NO.	SALESPERSON	PARTS REP.	PHONE NUMBER	FLOOR CODE	UNIT NO.
143055	LE13		1810/1818		

QUANTITY	SALE PRICE	QUANTITY	UNIT PRICE	DESCRIPTION	PROJECT CODE	UNIT PRICE	AMOUNT
				COMPLAINT			
				GENERATOR DR. H COOLANT/COOLANT IN OIL			
				TROUBLESHOOT ENGINE			
				TECHNICIAN CAN BE ON SITE TUESDAY 8/21			
				GENERATOR TROUBLESHOOT ENGINE			
				ESTIMATE TO REPLACE WATERPUMP DRIVE PULLEY SEAL OR COOLER			
				CORRECTION			
				REPAIR WET EXHAUST MANIFOLD			
				DO THROTTLE SAFETY OPERATIONS, DRAIN COOLANT, REMOVE AIR, CLEANER, DIAGNOSTIC AND ASSEMBLY, THROTTLE CONTROL LINKAGE, EXHAUST PIPES, STUDS, LIFT EXHAUST MANIFOLDS OUT AND CLEAN BLOCK CLEAN BOLTS AND STUDS, INSTALL EXHAUST MANIFOLDS, STUDS, EXHAUST PIPE, THROTTLE LINKAGE, THERMOSTAT HOSES, ETC.			
				INSTALL HOSE CLAMPS AND HOSES, FILL WITH WATER AND RESTORE, RUN ENGINE UP TO TEMP, FLUSH COOLING SYSTEM 3 TIMES, FILL WITH FRESH ANTIFREEZE, CHANGE OIL AND FILTERS, RUN GENSET FOR 1 HOUR WHILE CLEANING EVERYTHING UP			
				COVERAGE			
				REMARK			
				CUSTOMER BILLABLE			
				25 TW. BEGO EMAIL APPROVAL OF UPDATED ESTIMATE			
				1/16 EMAIL APPROVAL FROM KURT KELLER			
12		12	388.076	GASKET, EXHAUST MANIFOLD	CECO	32.41	389.04
1		1	100.017	SEAL, OIL	CECO	59.83	75.59
2		2	16.875	GASKET, EXH OUT CONNECTION	CECO	32.19	64.38
2		2	10.271	GASKET, WATER MANIFOLD	CECO	11.90	23.80

Being replaced? Call (877) 480-8170

THERE ARE ADDITIONAL CONTRACT TERMS ON THE REVERSE SIDE OF THIS DOCUMENT, INCLUDING LIMITATION ON WARRANTIES AND REMEDIES, WHICH ARE EXPRESSLY INCORPORATED HEREIN AND WHICH PURCHASER ACKNOWLEDGES HAVE BEEN READ AND FULLY UNDERSTOOD.

AUTHORIZED BY (print name) _____ SIGNATURE _____ DATE _____

Image 1(apu-maint1) : apu service receipt

TRANS-CANADA OPERATING PROCEDURES (FORM)			
Title: RICE MACT Maintenance Record Sheet			
Revision: 06	Effective Date: 01/01/10	Author: Jscopd	Page: 1 of 1

TOP Contact: Ateya Polk

Instructions:

- This form is to be completed in conjunction with the TOP entitled **RICE MACT Maintenance** (RDMS No. 098029683)
- Save this form using the following naming convention:
 - Task Title, CMMIS Facility ID, yyyy-mm.doc (e.g. RICE MACT Maintenance_00005_2014_07.doc)
 - Attach completed form to SAP Work Order Refer to IPBECA (Identify Plant Schedule Execute Close Analyze) Work Management Quick Reference Guide Page 88
- For information on filing and the online/offline retention requirements, please refer to the "TransCanada Facility Filing Structure Reference" compliance list (RDMS No. 033794696)

Facility: CS 11 Boyne Falls	Engine S/N: EUAPU - Kohler GV12-525IPG Generator Engine, 408 hp, 3.16 MMbtu/hr
Engine Type: EUAPU - Kohler GV12-525IPG Generator Engine, 408 hp, 3.16 MMbtu/hr	

Activity	Date Completed	Technician	Remarks/ Deficiencies:
Spark Plug Inspection (Natural Gas or Propane-Fired Engines)	7-10-2020	KK	Cummins certified maintenance/ inspection performed
Air Cleaner Inspection (Diesel-Fired Engines)	7-10-2020	KK	Cummins certified maintenance/ inspection performed
Belts and Hoses Inspection	7-10-2020	KK	Cummins certified maintenance/ inspection performed
Oil Sample Taken*	7-10-2020	KK, BM	Oil and coolant changed after Maintenance, oil samples taken
Oil Changed*	7-10-2020	KK, BM	Oil and coolant changed after Maintenance, oil samples taken

*All oil sample should be sent for analysis or changed.

Image 2(apu-maint2) : apu maintenance checklist

Unit Monthly				
Station	Unit	Year Month	Total Run Hours	Total Fuel [MCF]
Boyne Falls (GL11)	1	2020 January	217	25,955.00
Boyne Falls (GL11)	2	2020 January	28	3,339.75
Boyne Falls (GL11)	2	2020 February	41	4,745.70
Boyne Falls (GL11)	2	2020 April	3	318.31
Boyne Falls (GL11)	2	2020 May	170	22,086.24
Boyne Falls (GL11)	2	2020 June	632	82,122.32

Image 3(fueluse) : Fuel use and hours of operation

