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

B281522044

FACILITY: DTE - Electric Company Harbor Beach Power Plant		**SRN / ID:** B2815
LOCATION: 755 N. Huron, HARBOR BEACH		**DISTRICT:** Saginaw Bay
CITY: HARBOR BEACH		**COUNTY:** HURON
CONTACT: Dave Huxhold , Senior Environmenal Engineer		**ACTIVITY DATE:** 07/22/2013
STAFF: Jennifer Lang	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Scheduled Inspection		
RESOLVED COMPLAINTS:		

Inspection date: 7/22/13
Inspection started: 10:45 am
Inspection ended: 1:00 pm

On 7/22/13 at approximately 10:45 am, I arrived at the Harbor Beach, Detroit Edison (DTE) facility to perform an inspection. Dave Huxhold of DTE met me for the inspection. Prior to walking around the plant, Dave and I discussed the requirements of his Renewable Operating Permit (ROP) and Dave provided me with copies of several records which I requested. We also viewed real-time operating data from his laptop for the facility, and we discussed the fact that the DTE, Harbor Beach facility would be closing permanently by the end of this year. DTE is not going to mothball the facility and plans to void its ROP. The following items were noted during the inspection.

1. EU-00 is equipped with an ESP (electrostatic precipitator) that has six transformer-rectifier (TR) sets. TR#1, TR#3 and TR#5 are associated with the north bank and TR#2, TR#4 and TR#6 are associated with the south bank. Condition no. IV.3 of table EU-00 (Section 1) of ROP No. MI-ROP-B2815-2012 (hereinafter "ROP") states each TR set shall be capable of operating in spark-limited mode and shall meter and display the primary RMS voltage and amperage, the average secondary amperage, and the average spark rate. The following operational parameters were noted in the control room at DTE for TR#1 (inlet) and TR#6 (outlet) at approximately 12:30 pm. The facility was running at 81 megawatts and burning a 50/50 blend of eastern and western coal.

   - Primary RMS voltage (TR#1 & TR#6, respectively) = 412 & 416 volts
   - Primary RMS amperage (TR#1 & TR#6, respectively) = 036 & 042
   - Average secondary amperage:
     - TR#1 A = 230
     - TR#1 B = 051
     - TR#6 A = 300
     - TR#6 B = 049
   - Average spark rate (TR#1 & TR#6, respectively) = 050 & 011 per minute

2. Condition no. V.1 of table EU-00 (Section 1) of the ROP states every third year or more frequently upon request of the AQD, verification of the nonsulfuric acid particulate matter emission rate from the boiler exhaust stack by testing, at owners expense, will be required per reference test Method 17 or other AQD approved test method. Dave stated during the inspection that this test was performed in 2011. Following the inspection, Dave informed me in an email that the actual test date was 8/16/11. Another test would be due in 2014 if the facility wasn't closing.

3. Condition nos. VI.1 & 2 of table EU-00 (Section 1) of the ROP state, in part, DTE shall install, calibrate, maintain and operate a continuous monitoring system for the measurement of opacity, sulfur dioxide (SO2), nitrogen oxide (NOx), carbon dioxide (CO2), and volumetric flow. During the inspection, Dave provided real time operating data for each of these continuous monitoring systems (see attached). Condition nos. I.1 & 2 of table EU-00 of the ROP limits SO2 and particulate matter (PM) emissions to 1.67 lb/mmBtu and 0.19 lbs/1000 lbs (on a wet basis corrected to 50% excess air), respectively. Based upon real time data provided during the inspection at 11:45 am (see attached), the instantaneous SO2 and opacity emissions were 1.18 lb/mmBtu and 5.69%, respectively.

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4. Condition no. VI.3 of table EU-00 (Section 1) of the ROP requires DTE to maintain fuel oil records for each delivery or storage tank. These records may include purchase records for ASTM specification fuel oil, specifications or analysis provided by the vendor at the time of delivery, analytical results from laboratory testing, or any other records adequate to demonstrate compliance with the percent sulfur limit in fuel oil. During the inspection, Dave showed me a copy of the purchase record from their supplier which indicated the percent sulfur content of the oil. I did not request a copy of this record. Instead, I requested a copy of DTE's monthly sampling results for fuel oil (see attached). According to Dave, there is one fuel oil tank. Based on the sampling results, the percent sulfur in fuel oil is 0.001% (at 19,687 BTU per pound). Condition no. III.1 of table EU-00 (Section 1) of the ROP states the maximum sulfur content in fuel (% by weight) shall not exceed 1.0%. The sulfur content shall be calculated on the basis of 18,000 BTU per pound for liquid fuels. According to Dave, there is one fuel oil tank. At 19,687 BTU per pound, this equates to a percent sulfur limit of 1.09%.

5. During the inspection, "Rocky" of DTE collected three samples of coal (as burned) and three samples of fuel oil per my request. I did not witness the sampling. One of each of the three samples was given to DTE as a split sample. The remaining four samples were sent off to a contract laboratory for fuel parameter analysis (including percent sulfur). On August 26, 2013, I received the sample results. Although I requested that all four samples (i.e., 2 coal samples, 2 oil samples) be analyzed separately, the lab decided to composite the coal sample, and only analyze one of the oil samples. After discussing this issue with our DEQ-AQD lab coordinator, I contacted the lab and asked them to determine the % sulfur content on the second oil sample which they did not analyze. On 10/15/13, I received the results of that sample. The following table outlines the results. All % sulfur results comply with the limit.

Sample ID	Date Sample Results Received By AQD	Sample Results	Limit
Composite Coal Sample #57135-001	8/26/13	0.69% & 13,060 BTU/lb	1.09% (calculated on the basis of 12,000 BTU per pound for solid fuels)
Fuel Oil Sample #57135-002	8/26/13	<0.02% & 19,560 BTU/lb	1.09% (calculated on the basis of 18,000 BTU per pound for liquid fuels)
Fuel Oil Sample #57135-003	10/15/13	0.08% & 19,840 BTU/lb	1.10% (calculated on the basis of 18,000 BTU per pound for liquid fuels)

6. Condition no. VI.7 of table EU-00 (Section 1) of the ROP requires DTE to subject the opacity monitor to the manufacturer's recommended zero and span check at least once daily, unless the manufacturer has recommended adjustments at shorter intervals, in which case such recommendations shall be followed. During the inspection, Dave provided me with a copy of the calibration history for 7/22/13 (see attached). According to the history, the opacity monitor passed the zero and span check on 7/22/13. Also, based on the same history, it appears the SO2, NOx, flow and CO2 monitors passed the check as well.

7. Condition nos. VII.1 & 2 of table EU-00 (Section 1) of the ROP require annual and semi-annual reporting of deviations and certification of compliance. The annual report for section 1 of the permit was received by the MDEQ-AQD on 3/15/13. The annual report for section 2 of the permit was received on 3/1/13. Deviations listed in the section 1 report were considered adequately resolved by AQD staff. Therefore, a violation notice was not written. The annual report for section 2 of the permit did not list any deviations, and stated during the entire reporting period (1/1/12 – 12/31/12), the source was in compliance with all terms and conditions contained in the ROP.

8. EU-00 is subject to CAM (Compliance Assurance Monitoring – 40 CFR Part 64) for PM. DTE uses the opacity monitor to demonstrate compliance with their PM and opacity emission limits. Per the requirements of condition nos. VII.7 & 8 of table EU-00 (Section 1) of the ROP, DTE reported no CAM excursions in their Title V annual deviation report received by the AQD on 3/15/13. In addition, they reported no opacity monitor downtime for 1st, 2nd and 4th quarter 2012. However, there were 246 minutes of opacity monitor downtime during the 3rd quarter due to either calibration or QA/QC activities.

9. Per the requirements of condition nos. VII.4 & 6 of table EU-00 (Section 1) of the ROP, within 30 days following the end of the calendar quarter, DTE is required to submit a written report for each calendar quarter

that includes the SO2 monthly emission rate averages and opacity excess emission/monitor downtime information. Per the requirements of this condition, the AQD received DTE's report on 4/25/13. The SO2 monthly emission rate averages for January through March 2013 were below the 1.67 lb/mmBtu limit. SO2 monitor downtime was 1.3% of the total operating time due to routine maintenance. With regard to the opacity monitor, DTE reported 0.0% excess emissions and 0.0% monitor downtime.

10. Condition no. V.1 of tables EU-01 and EU-02 (Section 1) of the ROP require DTE to determine and record the opacity from the coal handling transfer point baghouse stack and the flyash silo bag filter collector stack per reference Method 9 during maximum routine operation conditions on an annual basis. During the inspection, Dave provided me with a copy of their annual visible emissions observations for both stacks. For the flyash silo stack, Method 9 observations were conducted on 3/24/13 and no visible emissions were observed. For the coal handling transfer point stack, Method 9 observations were conducted on 4/8/13 and no visible emissions were observed.

11. Condition no. VI.1 of tables EU-01 and EU-02 (Section 1) of the ROP require DTE to perform a non-certified visible emission observation of the coal handling system and the transfer point baghouse stack, as well as, the flyash silo bag filter collector stack during routine operating conditions pursuant to the schedule outlined in Appendix 1.3, Section 1.3.2. This schedule specifies the number of required observations per week based on actual hours of operation. Despite the allowed schedule, DTE conducts daily observations so that they're sure they capture all of the required observations during routine operations. Based upon copies of the environmental log provided by Dave during the inspection, the coal and ash handling systems were observed while operating on 7/20/13 and no excess emissions were noted. The coal handling system was also observed on 7/21/13 and no excess emissions were noted. The ash handling system was not operating on 7/21/13.

12. DTE currently has one cold cleaner on-site that's subject to the requirements listed in FGCOLDCLEANERS. During the inspection, Dave stated the Reid vapor pressure of the solvent is less than 0.3 psia, and the solvent is not heated or considered a safety hazard. Therefore, waste solvent is not stored in non-closed containers. Condition no. VI.3 of table FGCOLDCLEANERS (Section 1) of the ROP requires DTE to maintain written operating procedures for the cold cleaner. These written procedures shall be posted in an accessible, conspicuous location near the cold cleaner. Following the inspection, Dave emailed me a copy of the notice posted near the cold cleaner along with the MSDS for the solvent they're using.

13. Condition no. VI.1 of table FG-02 (Section 2) of the ROP requires DTE to maintain fuel oil records for each delivery or storage tank. These records may include purchase records for ASTM specification fuel oil, specifications or analysis provided by the vendor at the time of delivery, analytical results from laboratory testing, or any other records adequate to demonstrate compliance with the percent sulfur limit in fuel oil. During the inspection, Dave showed me a copy of the purchase record from their supplier which indicated the percent sulfur content of the oil. I did not request a copy of this record. Instead, I requested a copy of DTE's monthly sampling results for fuel oil (see attached). According to Dave, there is one fuel oil tank. Based on the sampling results, the percent sulfur in fuel oil is 0.001% (at 19,687 BTU per pound). Condition no. III.1 of table EU-00 (Section 1) of the ROP states the maximum sulfur content in fuel (% by weight) shall not exceed 1.0%. The sulfur content shall be calculated on the basis of 18,000 BTU per pound for liquid fuels. According to Dave, there is one fuel oil tank. At 19,687 BTU per pound, this equates to a percent sulfur limit of 1.09%.

14. On 9/1/10, the MDEQ-AQD received an initial notification for the RICE MACT (40 CFR Part 63, Subpart ZZZZ). The emission units subject to this regulation are EU-03 (DG11-1) and EU-04 (DG11-2) which are covered by table FG-02 (Section 2) in DTE's ROP. According to Dave, DTE is limiting the hours of use for these peaking units to 100 hours per year to avoid several requirements under the MACT. On 7/23/13, Dave emailed me the total hours of operation for each unit (see attached). According to this information, as of the end of June 2013, DG11-1 and DG11-2 ran a total of 4 and 4.6 hours, respectively.

15. On 8/14/12, the MDEQ-AQD received an initial notification for 40 CFR Part 63, Subpart UUUUU. The regulatory compliance date for this rule is 4/16/15. Since the facility will be shutting down by the end of 2013, the Harbor Beach facility will not be affected by this regulation. The affected emission unit would have been EU-00.

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16. The latest initial notification for the Boiler MACT (40 CFR Part 63, Subpart DDDDD) was received by the MDEQ-AQD on 5/10/13. According to this notification, the first compliance date for EU-00 (i.e., the affected emission unit) is 1/31/16. However, since the Harbor Beach facility will be shutting down by the end of 2013, EU-00 will not be subject to this regulation.

NAME Jennifer Fang DATE 10/16/13 SUPERVISOR C. Hare

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OPACITY	SO2	NOx	CO2	FLOW	No Channel	LOAD
5.69 %	402.7 ppm	287.1 ppm	10.74 %	256.7 kscfm		81.9 MW
Status: Ok	Status: Ok	Status: Ok	Status: Ok	Status: Ok		Status: Ok
State: Process On	State: Process On	State: Process On	State: Process On	State: Process On		State: Process On
Minute: 6.63	Minute: 401.7	Minute: 270.8	Minute: 10.74	Minute: 257.2		Minute: 81.9
Hour: 6.19	Hour: 397.5	Hour: 272.7	Hour: 10.58	Hour: 241.3		Hour: 75.9

OPAC 6M	SO2 LB/MM	NOX LB/MM	STACK TEMP	STACK FLOW	DIL RATIO	No Channel
6.10 %	1.180 #/M	0.599 #/M	291.9 DEGF	15402.0 kscfh	96.53	
Status: Ok	Status: Ok	Status: Ok	Status: Ok	Status: Ok	Status: Ok	
State: Process On	State: Process On	State: Process On	State: Process On	State: Process On	State: Process On	
Minute: 6.01	Minute: 1.177	Minute: 0.565	Minute: 291.9	Minute: 15432.0	Minute: 96.53	
Hour: 6.06	Hour: 1.182	Hour: 0.577	Hour: 282.4	Hour: 14478.8	Hour: 96.72	

OPAC LAST6	SO2 LB/HR	NOX LB/HR	No Channel	No Channel	COR DIL RT	BARO PRES
6.58 %	1062.5 #/H	539.6 #/H			99.19	29.211 inHg
Status: Ok	Status: Ok	Status: Ok			Status: Ok	Status: Ok
State: Process On	State: Process On	State: Process On			State: Process On	State: Process On
Minute: 6.58	Minute: 1059.4	Minute: 508.8			Minute: 99.19	Minute: 29.210
Hour: 5.87	Hour: 979.3	Hour: 479.2			Hour: 99.13	Hour: 29.217

OPAC Hr Avg	SO2 T/D	NOX T/D	No Channel	FUELFACTOR	SAMPLE FLW	TROBL CODE
3.5 %	2.2 TONS	1.1 TONS		1840	5.28 LPM	0
Status: Ok	Status: Ok	Status: Ok		Status: Ok	Status: Ok	Status: Ok
State: Process On	State: Process On	State: Process On		State: Process On	State: Process On	State: Process On
Minute: 3.5	Minute: 2.2	Minute: 1.1		Minute: 1840	Minute: 5.28	Minute: 0
Hour: 3.3	Hour: 2.1	Hour: 1.0		Hour: 1840	Hour: 5.29	Hour: 0

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Fuel Oil Sample Results

Report Id: PMIFUELA

Power Plant Performance Management

Date: 07/22/2013 11:52

Fuel Analysis Results Between 06/01/2013 TO 06/30/2013

FOR FUEL: 2OIL Plant/Unit: Harbor Beach Unit 1

Date	Sample Size	API_GRAV	SPEC_GRAV	BTU_GALS	BTU_LBS	LBS_GALS	SULFUR	SO2
06/01/2013 – 06/01/2013		37.48	0.837	137243	19687	6.971	0.001	0.001
06/02/2013 – 06/02/2013								
06/03/2013 – 06/03/2013								
06/04/2013 – 06/04/2013								
06/05/2013 – 06/05/2013								
06/06/2013 – 06/06/2013								
06/07/2013 – 06/07/2013								
06/08/2013 – 06/08/2013								
06/09/2013 – 06/09/2013								
06/10/2013 – 06/10/2013								
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06/23/2013 – 06/23/2013								
06/24/2013 – 06/24/2013								
06/25/2013 – 06/25/2013								
06/26/2013 – 06/26/2013								
06/27/2013 – 06/27/2013								
06/28/2013 – 06/28/2013								
06/29/2013 – 06/29/2013								

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Power Plant Performance Management

Fuel Analysis Results Between 06/01/2013 TO 06/30/2013

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FOR FUEL: 2OIL

Date	Sample Size	API GRAV	SPEC GRAV	BTU GALS	BTU LBS	LBS GALS	SULFUR	SO2
06/30/2013 – 06/30/2013								
Weighted Average:								
Maximum Value:		37.48	0.84	137,243.00	19,687.00	6.97	0.00	0.00
Minimum Value:		37.48	0.84	137,243.00	19,687.00	6.97	0.00	0.00
Range:		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Variance:		**********	**********	**********	**********	**********	**********	**********
Standard Deviation:		**********	**********	**********	**********	**********	**********	**********

		HBHPP1	HBHPP
	********** Fuel **********		
	Coal		
COAL_CONS	Coal Consumed for Generation [TONS]	2804	2804
COAL_HTVL	Coal As Fired Heat Value [BTUL]	11769	0
COAL_HEAT	Heat in Coal [MBTU]	66002	
COAL_MOIS	Moisture in Coal [PCT]	11.88	
COAL_SULF	Sulfur in Coal [PCT]	.719	
COAL_ASH	Ash in Coal [PCT]	8.27	8.27
	No 2 Oil		
2OIL_CONS	No. 2 Diesel Oil Consumed Generation [GALS]	7728	7728
2OIL_HTVL	Heat Value of #2 Oil [BTUG]	137243	0
2OIL_HEAT	Heat in #2 Oil [MBTU]	1061	
2OIL_EQTN	Coal Equivalents for No. 2 Oil [TONS]	44	0
2OIL_SULF	Sulfur in No. 2 Oil [PCT]	.001	*
2OIL_NGEN	No. 2 Oil Consumed: Non-Gen [GALS]	137	
	*****NAT GAS*****		
NGASCONS	Natural Gas Consumption for Aux Boiler [TCF]	424	424
NGAS_HTVL	Heat Value of Natural Gas [BTUC]		0
NGAS_HEAT	Heat in Natural Gas [MBTU]	427	
NGAS_NGEN	Natural Gas CONS: Non-Gen [TCF]	0	
	All Fuels		
F_TOT_HEAT	Total Heat All Fuel [MBTU]	67490	0
F_GEN_EQV	Fuel: Electric Generation Incl Equiv [TONS]	2866	2804
EGEN_HEAT	Heat in Fuel for EG [MBTU]	67490	67490
BLR_HT_OUT	Boiler Heat Output [MBTU]	52407	
ADJ	Adjusted Heat Input [MBTU]	66335	
HOT_STARTS	Number of Hot Starts [NO]	0	
HOT	Heat in Hot Starts [MBTU]	0	
COLD_START	Number of Cold Starts [NO]	3	
COLD	Heat in Cold Starts [MBTU]	1155	
COALCR_STR	Coal Credits Starts [BTU]	1155	
	******** Electrical Output ********		

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* → sampled result from one fuel oil tank. Sampled monthly.

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		HBHPP1	HBHPP
GROSS_GEN	Electric Generation Gross From MW Meter [MWHR]	4997	
GROSGEN_PI	PI Calculation of Gross MW [MWHR]	4927	
NET_GEN	Electric Generation Net [KWHRS]	4043	0
AUX_ELEC	AUX Power for Electric Generation [MWHR]	953.8	
NETWIN_FI	Electric Generation Capacity Net Winter [MW]	103	
	********* Unit Performance **********		
NET_HTRATE	Heat Rate Net []	16693	0
SPGUHR	Unit Gross Heat Rate [BTUKW]	13276	
TRB_HTRATE	Turbine Cycle Heat Rate [BTUKW]	10488.1	
BLREFF_TOT	Boiler Efficiency for Total Period [PCT]	77.7	0
BLREFF_STM	Boiler Efficiency for Steaming Period [PCT]	79	0
OP_HTRATE	Net Operating Heat Rate [BTUKW]	16407	
CAP_FACTOR	Capacity Factor [PCT]	5.5	0
OUTPUT_FAC	Output Factor [PCT]	31.4	0
	********** Flows **********		
MSF	Main Steam Flow [TLBHR]	45428	
BFW	Boiler Feedwater Flow [TLBHR]	41078	
BFWF_EFF	Comparison of feedwater & steam flow [PCT]	110.59	
ATTEM	Attemperation Flow [TLBHR]	1333	
TOTWF	Total Water Flow [TLBHR]	42411	
	********** Hours **********		
TRB_RUNHR	Turbine Run Hours [HRS]	125.02	
TRB_REP_HR	Turbine Repair Hours [HRS]	90.2	
TRB_RES_HR	Turbine Reserve Hours [HRS]	504.78	
TRB_TOT_HR	Turbine Total Hours [HRS]	720	
PERIOD_HRS	Total Hours in Report Period. []	720	

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		HBHPP1	HBHPP
	********** Fuel **********		
	Coal		
COAL_CONS	Coal Consumed for Generation [TONS]	2804	2804
COAL_HTVL	Coal As Fired Heat Value [BTUL]	11769	0
COAL_HEAT	Heat in Coal [MBTU]	66002	
COAL_MOIS	Moisture in Coal [PCT]	11.88	
COAL_SULF	Sulfur in Coal [PCT]	.719	
COAL_ASH	Ash in Coal [PCT]	8.27	8.27
	No 2 Oil		
2OIL_CONS	No. 2 Diesel Oil Consumed Generation [GALS]	7728	7728
2OIL_HTVL	Heat Value of #2 Oil [BTUG]	137243	0
2OIL_HEAT	Heat in #2 Oil [MBTU]	1061	
2OIL_EQTN	Coal Equivalents for No. 2 Oil [TONS]	44	0
2OIL_SULF	Sulfur in No. 2 Oil [PCT]	.001	
2OIL_NGEN	No. 2 Oil Consumed: Non-Gen [GALS]	137	
	*****NAT GAS*****		
NGASCONS	Natural Gas Consumption for Aux Boiler [TCF]	424	424
NGAS_HTVL	Heat Value of Natural Gas [BTUC]		0
NGAS_HEAT	Heat in Natural Gas [MBTU]	427	
NGAS_NGEN	Natural Gas CONS: Non-Gen [TCF]	0	
	All Fuels		
F_TOT_HEAT	Total Heat All Fuel [MBTU]	67490	0
F_GEN_EQV	Fuel: Electric Generation Incl Equiv [TONS]	2866	2804
EGEN_HEAT	Heat in Fuel for EG [MBTU]	67490	67490
BLR_HT_OUT	Boiler Heat Output [MBTU]	52407	
ADJ	Adjusted Heat Input [MBTU]	66335	
HOT_STARTS	Number of Hot Starts [NO]	0	
HOT	Heat in Hot Starts [MBTU]	0	
COLD_START	Number of Cold Starts [NO]	3	
COLD	Heat in Cold Starts [MBTU]	1155	
COALCR_STR	Coal Credits Starts [BTU]	1155	
	******** Electrical Output ********		

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		HBHPP1	HBHPP
GROSS_GEN	Electric Generation Gross From MW Meter [MWHR]	4997	
GROSGEN_PI	PI Calculation of Gross MW [MWHR]	4927	
NET_GEN	Electric Generation Net [KWHRS]	4043	0
AUX_ELEC	AUX Power for Electric Generation [MWHR]	953.8	
NETWIN_FI	Electric Generation Capacity Net Winter [MW]	103	
	******** Unit Performance **********		
NET_HTRATE	Heat Rate Net []	16693	0
SPGUHR	Unit Gross Heat Rate [BTUKW]	13276	
TRB_HTRATE	Turbine Cycle Heat Rate [BTUKW]	10488.1	
BLREFF_TOT	Boiler Efficiency for Total Period [PCT]	77.7	0
BLREFF_STM	Boiler Efficiency for Steaming Period [PCT]	79	0
OP_HTRATE	Net Operating Heat Rate [BTUKW]	16407	
CAP_FACTOR	Capacity Factor [PCT]	5.5	0
OUTPUT_FAC	Output Factor [PCT]	31.4	0
	************ Flows **********		
MSF	Main Steam Flow [TLBHR]	45428	
BFW	Boiler Feedwater Flow [TLBHR]	41078	
BFWF_EFF	Comparison of feedwater & steam flow [PCT]	110.59	
ATTEM	Attemperation Flow [TLBHR]	1333	
TOTWF	Total Water Flow [TLBHR]	42411	
	********** Hours **********		
TRB_RUNHR	Turbine Run Hours [HRS]	125.02	
TRB_REP_HR	Turbine Repair Hours [HRS]	90.2	
TRB_RES_HR	Turbine Reserve Hours [HRS]	504.78	
TRB_TOT_HR	Turbine Total Hours [HRS]	720	
PERIOD_HRS	Total Hours in Report Period. []	720	

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		HBHPP1	HBHPP
	*** Coal ***		
COALMERICK	Merick Scale Reading [TONS]	2804	
COALSCALEA	Coal Scale Adjustment [TONS]	0	
COAL_CONS	Coal Consumed for Generation [TONS]	2804	2804
	*** Harbor Beach Storage ***		
COAL_BEINV	Coal Beginning Inventory [TONS]	38140	
COALBIADJ	Coal Beginning Inventory Adjustment [TONS]	0	
COALRECVD	Coal Receipts [TONS]	0	
COALTRANSI	Coal Transfers In [TONS]	0	
COALTRANSO	Coal Transfers Out [TONS]	0	
COALRECCOR	Coal Pile Receipt Correction [TONS]	0	
COALPILEAD	Coal Pile Adjustment [TONS]	0	
COAL_CONS	Coal Consumed for Generation [TONS]	2804	2804
COALENDINV	Coal Ending Inventory [TONS]	35336	
	*** LSS / COLORADO COAL ***		
LSS_BEGIN	Low Sulfur Southern Beginning Inventory [TONS]	46807	46807
CBIADJLSS	Coal Beginning Inventory Adjustment, LSS [TONS]	0	
LSSRECVD	Low Sulfur Southern Received, (tons) [TONS]	0	
LSSTRANSI	Low Sulfur Southern Transfer In, (tons) [TONS]	0	
CPRCLSS	Coal Pile Receipts Correction, LSS [TONS]	0	
LSSPILEADJ	Low Sulfur Southern Pile Adjustment [TONS]	0	
LSS_CONS	Low Sulfur Southern Consumed [TONS]	1963	1963
LSS_ENDINV	LSS Ending Inventory [TONS]	44844	44844
	*** LSW COAL ***		
LSW_BEGINN	lsw beginning inventory [TONS]	-8667	
CBIADJLSW	Coal Beginning Inventory Adjustment, LSW [TONS]	0	
LSWRECVD	Low Sulfur Western Received, (tons) [TONS]	0	
LSWTRANSI	Low Sulfur Western Transfer In, (tons) [TONS]	0	
CPRCLSW	Coal Pile Receipts Correction, LSW [TONS]	0	
LSWPILEADJ	Low Sulfur Western Pile Adjustment [TONS]	0	
LSW_CONS	Low Sulfur Western Consumed [TONS]	841	841
LSW_ENDINN	lsw ending inventory [TONS]	-9508	

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		HBHPP1	HBHPP
	** No. 2 Oil Radar Gauge Calcs **		
2OILGAGFTE	No. 2 Oil Gauge End Reading, [FT]	13.56	
2OILBEGGAG	No. 2 Oil Begin Inventory from Guage [GALS]	13198	
2OILBIADJ	No. 2 Oil Beginning Inventory Correction [GALS]	0	
2OILRECPT	No. 2 Oil Receipts [GALS]	12404	
2OILTRANSI	No. 2 Oil Transferred In [GALS]	0	
2OILTRANSO	No. 2 Oil Transferred Out [GALS]	0	
2OIL_RECCR	No. 2 Oil Receipt Correction [GALS]	0	
2OILENDGAG	No. 2 Oil End Inventory from Gauge [GALS]	17736	
2OILTOTUSE	No. 2 Oil Used Total for All Purposes [GALS]	7865	
2OIL_CONS	No. 2 Diesel Oil Consumed Generation [GALS]	7728	7728
	** No. 2 Oil Temp Compensated Calcs **		
2OILAVGTEM	Average Liquid Temperature [DEG F]	69.9	
2OILTCVOL	NO. 2 Oil Temperature Compensated Volume [GALS]	17954	
2OILDIFF2	Diff Temp Comp Vol to Radar Calc Vol [GALS]	218	
2OILCOMP2	% Deviation Temp Comp Vol to Ind Meters [PCT]	1	
NGASCONS	Natural Gas Consumption for Aux Boiler [TCF]	424	424
NGAS_HEAT	Heat in Natural Gas [MBTU]	427	
NGAS_NGEN	Natural Gas CONS: Non-Gen [TCF]	0	
NGAS_HTVL	Heat Value of Natural Gas [BTUC]		0
HOT_STARTS	Number of Hot Starts [NO]	0	
COLD_START	Number of Cold Starts [NO]	3	
2OIL_IGNS	No. 2 Oil to Ignitors [GALS]	8030	
2OIL_PEAKR	No. 2 Oil to Peakers [GALS]	137	
2OIL_CONS	No. 2 Diesel Oil Consumed Generation [GALS]	7728	7728
	No. 2 Oil Comparison w/o Peaker Usage		
	No. 2 Oil Comparison w/ Peaker Usage		
2OILRECVD	No. 2 Oil Received [GALS]	12404	

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		HBHPP1	HBHPP
	*** Coal ***		
COALMERICK	Merick Scale Reading [TONS]	2804	
COALSCALEA	Coal Scale Adjustment [TONS]	0	
COAL_CONS	Coal Consumed for Generation [TONS]	2804	2804
	*** Harbor Beach Storage ***		
COAL_BEINV	Coal Beginning Inventory [TONS]	38140	
COALBIADJ	Coal Beginning Inventory Adjustment [TONS]	0	
COALRECVD	Coal Receipts [TONS]	0	
COALTRANSI	Coal Transfers In [TONS]	0	
COALTRANSO	Coal Transfers Out [TONS]	0	
COALRECCOR	Coal Pile Receipt Correction [TONS]	0	
COALPILEAD	Coal Pile Adjustment [TONS]	0	
COAL_CONS	Coal Consumed for Generation [TONS]	2804	2804
COALENDINV	Coal Ending Inventory [TONS]	35336	
	*** LSS / COLORADO COAL ***		
LSS_BEGIN	Low Sulfur Southern Beginning Inventory [TONS]	46807	46807
CBIADJLSS	Coal Beginning Inventory Adjustment, LSS [TONS]	0	
LSSRECVD	Low Sulfur Southern Received, (tons) [TONS]	0	
LSSTRANSI	Low Sulfur Southern Transfer In, (tons) [TONS]	0	
CPRCLSS	Coal Pile Receipts Correction, LSS [TONS]	0	
LSSPILEADJ	Low Sulfur Southern Pile Adjustment [TONS]	0	
LSS_CONS	Low Sulfur Southern Consumed [TONS]	1963	1963
LSS_ENDINV	LSS Ending Inventory [TONS]	44844	44844
	*** LSW COAL ***		
LSW_BEGINN	lsw beginning inventory [TONS]	-8667	
CBIADJLSW	Coal Beginning Inventory Adjustment, LSW [TONS]	0	
LSWRECVD	Low Sulfur Western Received, (tons) [TONS]	0	
LSWTRANSI	Low Sulfur Western Transfer In, (tons) [TONS]	0	
CPRCLSW	Coal Pile Receipts Correction, LSW [TONS]	0	
LSWPILEADJ	Low Sulfur Western Pile Adjustment [TONS]	0	
LSW_CONS	Low Sulfur Western Consumed [TONS]	841	841
LSW_ENDINN	lsw ending inventory [TONS]	-9508	

APPROVED BY PLANT

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		HBHPP1	HBHPP
	** No. 2 Oil Radar Gauge Calcs **		
2OILGAGFTE	No. 2 Oil Gauge End Reading, [FT]	13.56	
2OILBEGGAG	No. 2 Oil Begin Inventory from Guage [GALS]	13198	
2OILBIADJ	No. 2 Oil Beginning Inventory Correction [GALS]	0	
2OILRECPT	No. 2 Oil Receipts [GALS]	12404	
2OILTRANSI	No. 2 Oil Transferred In [GALS]	0	
2OILTRANSO	No. 2 Oil Transferred Out [GALS]	0	
2OIL_RECCR	No. 2 Oil Receipt Correction [GALS]	0	
2OILENDGAG	No. 2 Oil End Inventory from Gauge [GALS]	17736	
2OILTOTUSE	No. 2 Oil Used Total for All Purposes [GALS]	7865	
2OIL_CONS	No. 2 Diesel Oil Consumed Generation [GALS]	7728	7728
	** No. 2 Oil Temp Compensated Calcs **		
2OILAVGTEM	Average Liquid Temperature [DEG F]	69.9	
2OILTCVOL	NO. 2 Oil Temperature Compensated Volume [GALS]	17954	
2OILDIFF2	Diff Temp Comp Vol to Radar Calc Vol [GALS]	218	
2OILCOMP2	% Deviation Temp Comp Vol to Ind Meters [PCT]	1	
NGASCONS	Natural Gas Consumption for Aux Boiler [TCF]	424	424
NGAS_HEAT	Heat in Natural Gas [MBTU]	427	
NGAS_NGEN	Natural Gas CONS: Non-Gen [TCF]	0	
NGAS_HTVL	Heat Value of Natural Gas [BTUC]		0
HOT_STARTS	Number of Hot Starts [NO]	0	
COLD_START	Number of Cold Starts [NO]	3	
2OIL_IGNS	No. 2 Oil to Ignitors [GALS]	8030	
2OIL_PEAKR	No. 2 Oil to Peakers [GALS]	137	
2OIL_CONS	No. 2 Diesel Oil Consumed Generation [GALS]	7728	7728
	No. 2 Oil Comparison w/o Peaker Usage		
	No. 2 Oil Comparison w/ Peaker Usage		
2OILRECVD	No. 2 Oil Received [GALS]	12404	

APPROVED BY PLANT

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		HBHPP1	HBHPP
	********** Fuel **********		
	Coal		
COAL_CONS	Coal Consumed for Generation [TONS]	0	0
COAL_HTVL	Coal As Fired Heat Value [BTUL]	12088	0
COAL_HEAT	Heat in Coal [MBTU]	0	
COAL_MOIS	Moisture in Coal [PCT]	10	
COAL_SULF	Sulfur in Coal [PCT]	.76	
COAL_ASH	Ash in Coal [PCT]	8.35	8.35
	No 2 Oil		
2OIL_CONS	No. 2 Diesel Oil Consumed Generation [GALS]	0	0
2OIL_HTVL	Heat Value of #2 Oil [BTUG]	137243	0
2OIL_HEAT	Heat in #2 Oil [MBTU]	0	
2OIL_EQTN	Coal Equivalents for No. 2 Oil [TONS]	0	0
2OIL_SULF	Sulfur in No. 2 Oil [PCT]	.001	
2OIL_NGEN	No. 2 Oil Consumed: Non-Gen [GALS]	13	
	*****NAT GAS*****		
NGASCONS	Natural Gas Consumption for Aux Boiler [TCF]	14	14
NGAS_HTVL	Heat Value of Natural Gas [BTUC]		0
NGAS_HEAT	Heat in Natural Gas [MBTU]	14	
NGAS_NGEN	Natural Gas CONS: Non-Gen [TCF]	14	
	All Fuels		
F_TOT_HEAT	Total Heat All Fuel [MBTU]	14	0
F_GEN_EQV	Fuel: Electric Generation Incl Equiv [TONS]	1	0
EGEN_HEAT	Heat in Fuel for EG [MBTU]	14	14
BLR_HT_OUT	Boiler Heat Output [MBTU]	0	
ADJ	Adjusted Heat Input [MBTU]	14	
HOT_STARTS	Number of Hot Starts [NO]	0	
HOT	Heat in Hot Starts [MBTU]	0	
COLD_START	Number of Cold Starts [NO]	0	
COLD	Heat in Cold Starts [MBTU]	0	
COALCR_STR	Coal Credits Starts [BTU]	0	
	******** Electrical Output ********		

		HBHPP1	HBHPP
GROSS_GEN	Electric Generation Gross From MW Meter [MWHR]	0	
GROSGEN_PI	PI Calculation of Gross MW [MWHR]	0	
NET_GEN	Electric Generation Net [KWHRS]	-16	0
AUX_ELEC	AUX Power for Electric Generation [MWHR]	16	
NETWIN_FI	Electric Generation Capacity Net Winter [MW]	103	
	********* Unit Performance **********		
NET_HTRATE	Heat Rate Net []	0	0
BLREFF_TOT	Boiler Efficiency for Total Period [PCT]	0	0
BLREFF_STM	Boiler Efficiency for Steaming Period [PCT]	0	0
OP_HTRATE	Net Operating Heat Rate [BTUKW]	0	
CAP_FACTOR	Capacity Factor [PCT]	0	0
OUTPUT_FAC	Output Factor [PCT]	0	0
	********** Flows **********		
MSF	Main Steam Flow [TLBHR]	0	
BFW	Boiler Feedwater Flow [TLBHR]	0	
BFWF_EFF	Comparison of feedwater & steam flow [PCT]	0	
ATTEM	Attemperation Flow [TLBHR]	0	
TOTWF	Total Water Flow [TLBHR]	0	
	********** Hours **********		
TRB_RUNHR	Turbine Run Hours [HRS]	.02	
TRB_REP_HR	Turbine Repair Hours [HRS]	0	
TRB_RES_HR	Turbine Reserve Hours [HRS]	23.98	
TRB_TOT_HR	Turbine Total Hours [HRS]	24	
PERIOD_HRS	Total Hours in Report Period. []	24	

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		HBHPP1	HBHPP
	*** Coal ***		
COALMERICK	Merick Scale Reading [TONS]	0	
COALSCALEA	Coal Scale Adjustment [TONS]	0	
COAL_CONS	Coal Consumed for Generation [TONS]	0	0
	*** Harbor Beach Storage ***		
COALBIADJ	Coal Beginning Inventory Adjustment [TONS]	0	
COALRECVD	Coal Receipts [TONS]	0	
COALTRANSI	Coal Transfers In [TONS]	0	
COALTRANSO	Coal Transfers Out [TONS]	0	
COALRECCOR	Coal Pile Receipt Correction [TONS]	0	
COALPILEAD	Coal Pile Adjustment [TONS]	0	
COAL_CONS	Coal Consumed for Generation [TONS]	0	0
	*** LSS / COLORADO COAL ***		
CBIADJLSS	Coal Beginning Inventory Adjustment, LSS [TONS]	0	
LSSRECVD	Low Sulfur Southern Received, (tons) [TONS]	0	
LSSTRANSI	Low Sulfur Southern Transfer In, (tons) [TONS]	0	
CPRCLSS	Coal Pile Receipts Correction, LSS [TONS]	0	
LSSPILEADJ	Low Sulfur Southern Pile Adjustment [TONS]	0	
LSS_CONS	Low Sulfur Southern Consumed [TONS]	0	0
	*** LSW COAL ***		
CBIADJLSW	Coal Beginning Inventory Adjustment, LSW [TONS]	0	
LSWRECVD	Low Sulfur Western Received, (tons) [TONS]	0	
LSWTRANSI	Low Sulfur Western Transfer In, (tons) [TONS]	0	
CPRCLSW	Coal Pile Receipts Correction, LSW [TONS]	0	
LSWPILEADJ	Low Sulfur Western Pile Adjustment [TONS]	0	
LSW_CONS	Low Sulfur Western Consumed [TONS]	0	0
	** No. 2 Oil Radar Gauge Calcs **		
2OILGAGFTE	No. 2 Oil Gauge End Reading, [FT]	13.56	
2OILBEGGAG	No. 2 Oil Begin Inventory from Guage [GALS]	17750	
2OILBIADJ	No. 2 Oil Beginning Inventory Correction [GALS]	0	
2OILRECPT	No. 2 Oil Receipts [GALS]	0	

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		HBHPP1	HBHPP
2OILTRANSI	No. 2 Oil Transferred In [GALS]	0	
2OILTRANSO	No. 2 Oil Transferred Out [GALS]	0	
2OIL_RECCR	No. 2 Oil Receipt Correction [GALS]	0	
2OILENDGAG	No. 2 Oil End Inventory from Gauge [GALS]	17736	
2OILTOTUSE	No. 2 Oil Used Total for All Purposes [GALS]	13	
2OIL_CONS	No. 2 Diesel Oil Consumed Generation [GALS]	0	0
	** No. 2 Oil Temp Compensated Calcs **		
2OILAVGTEM	Average Liquid Temperature [DEG F]	75.4	
2OILTCVOL	NO. 2 Oil Temperature Compensated Volume [GALS]	17915	
2OILDIFF2	Diff Temp Comp Vol to Radar Calc Vol [GALS]	179	
2OILCOMP2	% Deviation Temp Comp Vol to Ind Meters [PCT]	1	
NGASCONS	Natural Gas Consumption for Aux Boiler [TCF]	14	14
NGAS_HEAT	Heat in Natural Gas [MBTU]	14	
NGAS_NGEN	Natural Gas CONS: Non-Gen [TCF]	14	
NGAS_HTVL	Heat Value of Natural Gas [BTUC]		0
HOT_STARTS	Number of Hot Starts [NO]	0	
COLD_START	Number of Cold Starts [NO]	0	
2OIL_IGNS	No. 2 Oil to Ignitors [GALS]	0	
2OIL_PEAKR	No. 2 Oil to Peakers [GALS]	0	
2OIL_CONS	No. 2 Diesel Oil Consumed Generation [GALS]	0	0
	No. 2 Oil Comparison w/o Peaker Usage		
	No. 2 Oil Comparison w/ Peaker Usage		
2OILRECVD	No. 2 Oil Received [GALS]	0	

Report Id: P3MOUTGD

EVENT HISTORY DETAIL REPORT

Date : 07/01/2013 07:48

For Period: 06/01/2013 00:00 — 06/30/2013 23:59

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Plant HBHPP

Unit 1

MPAC Id	MW Loss	Start Date	End Date	Fuel Loss	Fuel Gain	Gain Type	Fuel loss mwwks	Hours	Weeks	Nerc Description	Failure	Event Type	ACE Id
Main Turbine Generator	95	05/21/2013 17:04	06/05/2013 04:26				0.00	100.43	56.79	RESERVE SHUTDOWN	Reserve Shutdown	RS	4391610
Main Turbine Generator	95	06/07/2013 18:02	06/10/2013 01:00				0.00	54.97	31.08	RESERVE SHUTDOWN	Reserve Shutdown	RS	4394305
Boiler	95	06/10/2013 01:00	06/11/2013 13:00				0.00	36.00	20.36	ECONOMIZER LEAKS	Leaks	MO	4394515
Main Turbine Generator	95	06/11/2013 13:00	06/19/2013 05:01				0.00	184.02	104.06	RESERVE SHUTDOWN	Reserve Shutdown	RS	4394672
Main Turbine Generator	95	06/19/2013 10:13	06/24/2013 10:15				0.00	120.03	67.88	RESERVE SHUTDOWN	Reserve Shutdown	RS	4395795
Main Turbine Generator	95	06/26/2013 20:27	06/27/2013 07:18				0.00	10.85	6.14	RESERVE SHUTDOWN	Reserve Shutdown	RS	4420873
Main Turbine Generator	95	06/27/2013 07:18	06/29/2013 13:30				0.00	54.20	30.65	TURBINE LUBE OIL SYSTEM VALVES AND PIPING	Leaks	U1	4421157
Main Turbine Generator	95	06/29/2013 13:30						34.48	19.50	RESERVE SHUTDOWN	Reserve Shutdown	RS	4421471
Boiler	8	08/13/2010 11:43						719.98	34.28	GENERATOR VIBRATION	Vibration; not within limits	NC	4316258
Sum							0.00	1314.97	370.73				
Plant Sum							0.00	1314.97	370.73				
Total							0.00	1314.97	370.73				

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Select Channel/Time Range Change calibration columns Statistics Get Latest Cals Refresh Help

Current DateTime Range: Jun 20, 2013 00:00 To Jul 22, 2013 23:59

Start Time	Channel	Type	Warn Check	Part 75	ZERO reading	ZERO Target	ZERO Error	SPAN Reading	SPAN Target	SPAN Error	SPAN 75 Reading	MID Reading	MID Target	MID Error	Under Warn	Zero Warn	Span Warn	Instr Range	InZero Adjust
07/22/2013 07:20	SO2	DAILY	PASS	PASS	1.3	0	0.2%	431.2	438.1	-0.9%	-999.9	0	----	2.5	40	40	800	800	1.3
07/22/2013 07:20	OPACITY	DAILY	PASS	---	-0.05	0	----	26.02	26	----	-99.99	0	----	2	4	4	100	100	0.05
07/22/2013 07:20	NOx	DAILY	PASS	PASS	0.5	0	0.1%	269.7	274.5	-1.0%	-999.9	0	----	2.5	25	25	500	500	0.5
07/22/2013 07:20	FLOW	DAILY	PASS	PASS	0.6	0	0.2%	189.8	190	-0.1%	-999.9	0	----	3	20.4	20.4	340	340	0.6
07/22/2013 07:20	CO2	DAILY	PASS	PASS	0	0	0.0	11	11.05	-0.1	-99.99	0	----	0.5	1	1	20	20	0
07/22/2013 05:18	FLOW	DAILY	PASS	PASS	-0.7	0	-0.2%	190.8	190	0.2%	-999.9	0	----	3	20.4	20.4	340	340	0.7
07/22/2013 05:17	SO2	DAILY	PASS	PASS	0.7	0	0.1%	433.8	438.1	-0.5%	-999.9	0	----	2.5	40	40	800	800	0.7
07/22/2013 05:17	OPACITY	DAILY	PASS	---	-0.07	0	----	26.04	26	----	-99.99	0	----	2	4	4	100	100	0.07
07/22/2013 05:17	NOx	DAILY	PASS	PASS	0.3	0	0.1%	271.5	274.5	-0.6%	-999.9	0	----	2.5	25	25	500	500	0.3
07/22/2013 05:17	CO2	DAILY	PASS	PASS	0	0	0.0	11.03	11.05	0.0	-99.99	0	----	0.5	1	1	20	20	0
07/21/2013 07:20	OPACITY	DAILY	PASS	---	-0.04	0	----	26.03	26	----	-99.99	0	----	2	4	4	100	100	0.04
07/21/2013 07:20	FLOW	DAILY	PASS	PASS	-1.3	0	-0.4%	191.2	190	0.4%	-999.9	0	----	3	20.4	20.4	340	340	1.3
07/20/2013 07:20	SO2	DAILY	PASS	PASS	0.8	0	0.1%	435.2	438.1	-0.4%	-999.9	0	----	2.5	40	40	800	800	0.8
07/20/2013 07:20	OPACITY	DAILY	PASS	---	-0.04	0	----	26.03	26	----	-99.99	0	----	2	4	4	100	100	0.04
07/20/2013 07:20	NOx	DAILY	PASS	PASS	0.2	0	0.0%	272.3	274.5	-0.4%	-999.9	0	----	2.5	25	25	500	500	0.2
07/20/2013 07:20	FLOW	DAILY	PASS	PASS	1.6	0	0.5%	190.9	190	0.3%	-999.9	0	----	3	20.4	20.4	340	340	1.6
07/20/2013 07:20	CO2	DAILY	PASS	PASS	-0.01	0	0.0	11.08	11.05	0.0	-99.99	0	----	0.5	1	1	20	20	-0.01
07/19/2013 07:20	SO2	DAILY	PASS	PASS	0.6	0	0.1%	435.4	438.1	-0.3%	-999.9	0	----	2.5	40	40	800	800	0.6
07/19/2013 07:20	OPACITY	DAILY	PASS	---	-0.04	0	----	26.04	26	----	-99.99	0	----	2	4	4	100	100	0.04
07/19/2013 07:20	NOx	DAILY	PASS	PASS	0.1	0	0.0%	272.2	274.5	-0.5%	-999.9	0	----	2.5	25	25	500	500	0.1
07/19/2013 07:20	FLOW	DAILY	PASS	PASS	0.7	0	0.2%	190.6	190	0.2%	-999.9	0	----	3	20.4	20.4	340	340	0.7
07/19/2013 07:20	CO2	DAILY	PASS	PASS	-0.03	0	0.0	11.02	11.05	0.0	-99.99	0	----	0.5	1	1	20	20	-0.03

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Harbor Beach Power Plant
Annual Visible Emission Observations

Ash

Equipment Id	*Pulsair Discharge Vent*		
Date	3-24-13	Start Time	15:55
Direction/Distance to Stack:	N	10'	
Wind Speed m/h	6.	Direction	WNW
Sky Condition	CLEAR		
Observer	W MAUSOLF		
Device On (Y/N)	Y		
Comments			

	0 sec's	15 sec's	30 sec's	45 sec's
0	0	0	0	0
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0

Six Minute Average =	0	0

Equipment Id			
Date		Start Time	
Direction/Distance to Stack:			
Wind Speed		Direction	
Sky Condition			
Observer			
Device On (Y/N)			
Comments			

	0 sec's	15 sec's	30 sec's	45 sec's
0				
1				
2				
3				
4				
5				

Six Minute Average =		0

coal

Equipment Id	*Bunker Room Dust Collector*		
Date	4-8-13	Start Time	1030
Direction/Distance to Stack:	N	5'	
Wind Speed m/h	3-5	Direction	NW
Sky Condition	CLOUDY		
Observer	W MAUSOLF		
Device On (Y/N)	(Y)		
Comments			

	0 sec's	15 sec's	30 sec's	45 sec's
0	0	0	0	0
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0

Six Minute Average =	0	0

Equipment Id			
Date		Start Time	
Direction/Distance to Stack:			
Wind Speed		Direction	
Sky Condition			
Observer			
Device On (Y/N)			
Comments			

	0 sec's	15 sec's	30 sec's	45 sec's
0				
1				
2				
3				
4				
5				

Six Minute Average =		0

Note: Confirm equipment is operating at time of obervation.

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Harbor Beach Power Plant - Environmental Log

S.O. (Nights 0000 - 0700): WM (Please Initial Above) S.O. (Days 0700 - 1900): ~~WE~~ (Please Initial Above) S.O. (Nights 1900-2400): WM (Please Initial Above) Date: 7-20-13

OIL OR UNUSUAL DISCHARGE

	Visual		Yes/No	Yes/No	(If yes, see Plant Order #9)
Outlet Canal Operator Inititals	RE / DO	Nights	NO		
		Days	NO	NO	

TANK AND SUMP HOUSE LEVELS

		1800-0600 hrs.	0600-1800 hrs.
Main Oily Waste	Initials	RE	DO
Sec. Oily Waste	Initials	RE	DO
Sub. Oily Waste	Initials	RE	DO
Ash Overflow	Initials	RE	DO
# 2 Fuel Oil	Level	10.13	10.10
Nitrogen Tank Reading		80	78
Hydrogen Tank Reading		1200	1100
Demin Trailer Reading		437,800	473,200

Nitrogen - Reorder at 56", Hydrogen - Reorder at 600 psi
Reorder #2 Fuel Oil at 8.5'
Inspect oily waste sumps and remove oil to maintain sump content to < 1%

Hours Operated 6

ASH HANDLING SYSTEM

System Includes: Pulseair, Transfer Points, Unloading Station

	Yes	No
System Inspected	✓	
Excessive Emissions Observed		✓
Fly Ash Discharge to Ash Pond		✓

Inspected By DO
Time 0800

Corrective Actions Taken

COAL HANDLING SYSTEM

Hours Operated 3

System Includes: Exhauster, Transfer Points, Storage Area

	System Inspected (yes / no)	Excessive Emissions Observed (yes / no)	Time Inspected	Inspected by (Initials)
Inside Coal Handler	Yes	NO	0600	RE
Outside Coal Handler	Yes	NO	0600	RE

Corrective Actions Taken

CIRCULATING WATER STATUS

Reading Location - Screenhouse and Canal Bridge

Notify the Supervising Operator when the temp. difference is: >15° with 2 circ pump operation, >27° deg with 1 circ pump

Hour	Circ. Pump Status One	Two	None	Temperatures *(Once/Shift) In*	Out*	Temperature Differential
1				66	70	04
2						
3						
4						
5						
6						
7						
8						
9				67	72	5
10						
11						
12						
13						
14						
15						
16						
17						
18						
19				72	80	8
20						
21						
22						
23						
24						
Totals	1	23	0			5.5

SCREEN WASH

One reading /day if circ's are off Operator

Total Hours Circs. Off	Temps in**	out***	Differential

**screen house ***gen. service discharge

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Harbor Beach Power Plant - Environmental Log

S.O. (Nights 0000 - 0700): WM (Please Initial Above) S.O. (Days 0700 - 1900): [illegible] (Please Initial Above) S.O. (Nights 1900-2400): WM (Please Initial Above) Date: 7-21-13

29 of 56

OIL OR UNUSUAL DISCHARGE

Outlet Canal	Visual		Yes/No	Yes/No	(If yes,
Operator	NE	Nights	NO		see Plant
Inititals	[illegible]	Days	NO	NO	Order #9)

TANK AND SUMP HOUSE LEVELS

		1800-0600 hrs.	0600-1800 hrs.
Main Oily Waste	Initials	NE	[illegible]
Sec. Oily Waste	Initials	NE	[illegible]
Sub. Oily Waste	Initials	NE	[illegible]
Ash Overflow	Initials	NE	[illegible]
# 2 Fuel Oil	Level	10.02	9.95
Nitrogen Tank Reading		78	78
Hydrogen Tank Reading		1500	1500
Demin Trailer Reading		173,200	512 700

Nitrogen - Reorder at 56", Hydrogen - Reorder at 600 psi
Reorder #2 Fuel Oil at 8.5'
Inspect oily waste sumps and remove oil to maintain sump content to < 1%

Hours Operated: 0

ASH HANDLING SYSTEM

System Includes: Pulseair, Transfer Points, Unloading Station

	Yes	No	Inspected
System Inspected			By
Excessive Emissions Observed			Time
Fly Ash Discharge to Ash Pond			

Corrective Actions Taken

COAL HANDLING SYSTEM

Hours Operated: 4

System Includes: Exhauster, Transfer Points, Storage Area

	System Inspected (yes / no)	Excessive Emissions Observed (yes / no)	Time Inspected	Inspected by (Initials)
Inside Coal Handler	YES	NO	0600	RB
Outside Coal Handler	YES	NO	0600	RJ

Corrective Actions Taken

CIRCULATING WATER STATUS

Reading Location - Screenhouse and Canal Bridge

Notify the Supervising Operator when the temp. difference is: >15° with 2 circ pump operation, >27° deg with 1 circ pump

Hour	Circ. Pump Status: One	Two	None	Temperatures *(Once/Shift): In*	Out*	Temperature Differential
1				71	71	0
2						
3						
4						
5						
6						
7						
8						
9				72	72	0
10						
11						
12						
13						
14						
15						
16						
17						
18				72	73	01
19						
20						
21						
22						
23						
24						
Totals	24	0	0			.5

SCREEN WASH

One reading /day if circ's are off

Operator

Total Hours Circs. Off	Temps in**	out***	Differential

**screen house ***gen. service discharge

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NOTICE

Michigan Air Pollution Rules for Cold Parts Cleaners *MUST Be Followed at All Times!*

- A cover shall be installed and shall be closed when parts are not being handled in the cleaner.
- Drain cleaned parts for at least 15 seconds or until dripping ceases.
- Store waste solvent only in closed containers.

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Safety Data Sheet

Zep, Inc.
1310 Seaboard Industrial Blvd.
Atlanta, GA 30318
1-877-I-BUY-ZEP (428-9937)
www.zep.com

Superior Solutions

Section 1. Chemical Product and Company Identification

Product name	DYNA 143°
Product use	Parts Cleaner Solvent
Product code	0366
Date of issue	06/25/12 Supersedes 05/22/09

Emergency Telephone Numbers

For MSDS Information:
Compliance Services 1-877-I-BUY-ZEP (428-9937)

For Medical Emergency
(877) 541-2016 Toll Free - All Calls Recorded

For Transportation Emergency
CHEMTREC: (800) 424-9300 - All Calls Recorded
In the District of Columbia (202) 483-7616

Prepared By
Compliance Services
1420 Seaboard Industrial Blvd.
Atlanta, GA 30318

Section 2. Hazards Identification

Emergency overview

*Hazard Determination System (HDS): Health, Flammability, Reactivity

WARNING!

COMBUSTIBLE LIQUID AND VAPOR.
Danger: HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE.

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse effects are lessened by following all prescribed safety precautions, including the use of proper personal protective equipment.

Acute Effects **Routes of Entry** Dermal contact. Eye contact. Inhalation.

Eyes May cause eye irritation. Inflammation of the eye is characterized by redness, watering and itching.

Skin May cause skin irritation. Skin inflammation is characterized by itching, scaling, or reddening.

Inhalation No known acute effects of this product resulting from inhalation. Long-term exposure may cause headache, nausea or weakness.

Ingestion Aspiration hazard if swallowed. Can enter lungs and cause damage.

Chronic effects Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Repeated or prolonged exposure to spray or mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection.

Carcinogenicity
Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

Product/Ingredient name
Not available.

Additional Information: See Toxicological Information (Section 11)

Section 3. Composition/Information on Ingredients

Name of Hazardous Ingredients	CAS number	% by Weight
Distillates (petroleum), hydrotreated light	64742-47-8	90 - 100

Section 4. First Aid Measures

Eye Contact Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Skin Contact Flush affected area immediately with large amounts of water for at least 15 minutes. Wash clothing before reuse. Clean shoes thoroughly before reuse. If irritation persists, get medical attention.

Inhalation Move exposed person to fresh air. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, Get medical attention.

Ingestion Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. If affected person is conscious, give plenty of water to drink. Never give anything by mouth to an unconscious person. Get medical attention immediately.

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Section 5. Fire Fighting Measures

National Fire Protection Association (U.S.A.)

Flash Point Closed cup: 61.667°C (143°F) [Pensky-Martens.]

Flammable Limits Lower: 0.7%
Upper: 7%

Flammability COMBUSTIBLE LIQUID AND VAPOR.

Fire hazard Combustible liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

Fire-Fighting Procedures Use dry chemical, CO_2, water spray (fog) or foam.

Section 6. Accidental Release Measures

Spill Clean up Eliminate all ignition sources. Put on appropriate personal protective equipment (see section 8). Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment.

Section 7. Handling and Storage

Handling Put on appropriate personal protective equipment (see section 8). Avoid contact with eyes, skin and clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Store and use away from heat, sparks, open flame or any other ignition source. Wash thoroughly after handling. Do not reuse container.

Storage Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Keep container tightly closed and sealed until ready for use. Store between the following temperatures: 40°F - 120°F (4.4°C - 49°C). Keep out of the reach of children.

Section 8. Exposure Controls/Personal Protection

Product name	Exposure limits
No exposure limit value known.	

Personal Protective Equipment (PPE)

Eyes Safety glasses.

Body Wear appropriate protective clothing to prevent skin contact.
Recommended: Neoprene gloves. Rubber gloves. Nitrile gloves.

Respiratory A respirator is not needed under normal and intended conditions of product use. Use with adequate ventilation. Wear appropriate respirator when ventilation is inadequate.

Section 9. Physical and Chemical Properties

Physical State Liquid. [Clear.]
pH Not applicable.
Boiling Point 192 to 211°C (377.6 to 411.8°F)
Specific Gravity 0.79
Solubility Insoluble in the following materials: cold water.

Color Colorless.
Odor Solvent. [Slight]
Vapor Pressure 0.043 kPa (0.32 mm Hg) [20°C]
Vapor Density 5.4 [Air = 1]
Evaporation Rate 0.14 (Butyl acetate. = 1)
VOC (Consumer) 100 % (w/w) 6.59 lbs/gal (790 g/l)

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.
Incompatibility Avoid contact with strong oxidizers, excessive heat, sparks or open flame.
Hazardous Polymerization Under normal conditions of storage and use, hazardous polymerization will not occur.
Hazardous Decomposition Products carbon oxides (CO, CO_2)

Section 11. Toxicological Information

Acute Toxicity

DYNA 143°	LC50 Inhalation Vapor	Rat	>4.3 mg/l	4 hours
	LD50 Dermal	Rabbit	2000 to 4000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-

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Section 12. Ecological Information

Environmental Effects Practically non-toxic to aquatic organisms to water solubility. May adsorb to sediments and possibly cause toxic effects to organisms.

Aquatic Ecotoxicity

Distillates (petroleum), hydrotreated light	-	Acute LC50 2200 ug/L Fresh water	Fish - Bluegill - Lepomis macrochirus - 35 to 75 mm	4 days

Section 13. Disposal Considerations

Waste Information

Waste must be disposed of in accordance with federal, state and local environmental control regulations. Consult your local or regional authorities for additional information.

Waste Stream Classification: Non-hazardous waste
Origin: RCRA waste.

Section 14. Transport Information

Regulatory Information	UN number	Proper shipping name	Classes	PG*	Label
DOT Classification	Not regulated.	-	-	-	
IMDG Class	Not regulated.	-	-	-	

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.
PG* : Packing group

Section 15. Regulatory Information

U.S. Federal Regulations

SARA 313 toxic chemical notification and release reporting:
No products were found.

Clean Water Act (CWA) 311: No products were found.
Clean Air Act (CAA) 112 regulated toxic substances: No products were found.
All Components of this product are listed or exempt from listing on TSCA Inventory.

State Regulations

California Prop 65 No products were found.

Section 16. Other Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

**NOTE: Hazard Determination System (HDS) ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although these ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HDS ratings are to be used with a fully implemented program to relay the meanings of this scale.*

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From: Esmeralda Zamarron/Employees/dteenergy
To: David L Huxhold/Employees/dteenergy@dteenergy

Date: Monday, July 22, 2013 02:21PM
Subject: Re: DTE - Wilmot & Harbor Beach

Harbor Beach Peaker Run Hours per P3M DG11-1 DG11-2		
	Unit 1	Unit 2
Jan	0	0
Feb	0	1
Mar	1.1	0.7
April	0.7	0.7
May	1.7	1.7
June	0.5	0.5
Total	4	4.6

Esmeralda Zamarron
Staff Engineer- Environmental
Peakers/Shops
Work: (313) 897-0038
Cell Phone: (313) 460-2690

-----David L Huxhold/Employees/dteenergy wrote: -----

> To: Esmeralda Zamarron/Employees/dteenergy@dteenergy
> From: David L Huxhold/Employees/dteenergy
> Date: 07/22/2013 01:59PM
> Subject: Re: DTE - Wilmot & Harbor Beach
>
> Esmo - need your help on one item that Jennifer asked for - can you tell me how many hours each diesel peaker has run this year? Also, can you call me and tell me how to get the numbers?
>
> Thanks - the inspection went well.
>
> Dave
> 313-530-0053
> -----Esmeralda Zamarron/Employees/dteenergy wrote: -----
>
> > To: "Lang, Jennifer (DEQ)" <LANGJ1@michigan.gov>
> > From: Esmeralda Zamarron/Employees/dteenergy
> > Date: 07/18/2013 11:00AM
> > Cc: David L Huxhold/Employees/dteenergy@dteenergy, Steven C Down/Employees/dteenergy@dteenergy
> > Subject: Re: DTE - Wilmot & Harbor Beach

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Jenny C

Fibertec
environmental
services

Tuesday, August 06, 2013

Fibertec Project Number: 57135
Project Identification: DTE HARBOR BEACH /
Submittal Date: 07/25/2013

Ms. Susan Kilmer
Michigan Department Environmental Quality-AQD
525 W. Allegan Street
Constitution Hall-3N
Lansing, MI 48909

Dear Ms. Kilmer,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note samples will be disposed of 30 days after reporting date.

Both samples were analyzed by Mineral Labs.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

Daryl P. Strandbergh
Laboratory Director

DPS/kc

Enclosures

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Client Identification:	**Michigan Department Environmental Quality-AQD**	Sample Description:	**COAL**	Chain of Custody:	**NA**
Client Project Name:	**DTE HARBOR BEACH**	Sample No:	**1**	Collect Date:	**07/22/13**
Client Project No:	**NA**	Sample Matrix:	**Other (Solid)**	Collect Time:	**11:30**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Ash Analysis (ASTM D3174) — **Aliquot ID: 57135-001** — **Matrix: Other (Solid)** — **Analyst: ML**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Ash (NN)	**9.44**		%	NA	1.0	NA	NA	07/30/13 00:00	NA

Percent Moisture Analysis (ASTM D3302) — **Aliquot ID: 57135-001** — **Matrix: Other (Solid)** — **Analyst: ML**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (NN)	**13.96**		%	NA	1.0	NA	NA	07/30/13 00:00	NA

Chlorine Analysis (ASTM D4208) — **Aliquot ID: 57135-001** — **Matrix: Other (Solid)** — **Analyst: ML**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Chlorine (NN)	**2000**		ppm	NA	1.0	NA	NA	07/30/13	NA

Sulfur Analysis (ASTM D4239) — **Aliquot ID: 57135-001** — **Matrix: Other (Solid)** — **Analyst: ML**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Sulfur (NN)	**0.69**		%	NA	1.0	NA	NA	07/30/13 00:00	NA

BTU Analysis (ASTM D5865) — **Aliquot ID: 57135-001** — **Matrix: Other (Solid)** — **Analyst: ML**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. BTU (NN)	**13060**		BTU/lb	NA	1.0	NA	NA	07/30/13 00:00	NA

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Client Identification:	**Michigan Department Environmental Quality-AQD**	Sample Description:	**FUEL OIL**	Chain of Custody:	**NA**
Client Project Name:	**DTE HARBOR BEACH**	Sample No:	**2**	Collect Date:	**07/22/13**
Client Project No:	**NA**	Sample Matrix:	**Oil**	Collect Time:	**11:30**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Ash Analysis (ASTM D3174) — **Aliquot ID: 57135-002** — **Matrix: Oil** — **Analyst: ML**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Ash (NN)	**<.02**		%	NA	1.0	NA	NA	07/30/13 00:00	NA

Chlorine Analysis (ASTM D4208) — **Aliquot ID: 57135-002** — **Matrix: Oil** — **Analyst: ML**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Chlorine (NN)	**44.00**		ppm	NA	1.0	NA	NA	07/30/13 00:00	NA

Sulfur Analysis (ASTM D4239) — **Aliquot ID: 57135-002** — **Matrix: Oil** — **Analyst: ML**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Sulfur (NN)	**<.02**		%	NA	1.0	NA	NA	07/30/13 00:00	NA

BTU Analysis (ASTM D5865) — **Aliquot ID: 57135-002** — **Matrix: Oil** — **Analyst: ML**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. BTU (NN)	**19560**		BTU/lb	NA	1.0	NA	NA	07/30/13 00:00	NA

1914 Holloway Drive *Holt, MI 48842* *T: (517) 699-0345* *F: (517) 699-0388*
11766 E. Grand River *Brighton, MI 48116* *T: (810) 220-3300* *F: (810) 220-3311*
8660 S. Mackinaw Trail *Cadillac, MI 49601* *T: (231) 775-8368* *F: (231) 775-8584*

lab@fibertec.us

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Definitions/ Qualifiers:

A: Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
M: Modified Method
U: The analyte was not detected at or above the reporting limit.
X: Matrix interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QA limits

Exception Summary:

ACCREDITED IN ACCORDANCE WITH nelac

Accreditation Number:

E-10395

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Fibertec environmental services

Analytical Laboratory
1914 Holloway Drive
Holt, MI 48842
Phone: 517 699 0345
Fax: 517 699 0388
email: lab@fibertec.us

8660 S. Mackinaw Trail
Cadillac, MI 49601
Phone: 231 775 8368
Fax: 231 775 8584

Industrial Hygiene Services, Inc.
1914 Holloway Drive
Holt, MI 48842
Phone: 517 699 0345
Fax: 517 699 0382
email: asbestos@fibertec.us

Geoprobe
11766 E. Grand River
Brighton, MI 48116
Phone: 810 220 3300
Fax: 810 220 3311

Chain of Custody # 00001

PAGE ___ of ___

Client Name: MDEQ - AQD
Contact Person: Jenny Lang
Project Name/ Number: DTE Harbor Beach
Purchase Order#

Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor	MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PRESERVED (Y/N)	PARAMETERS: Fuel parameter	PARAMETERS: % Sulfur
1	7/22/13	11:30	1	Coal	X	2	N	✓	✓
2	7/22/13	11:30	2	fuel oil	O	2	N	✓	✓

Turnaround:
- [ ] 24 hour RUSH (surcharge applies)
- [ ] 48 hour RUSH (surcharge applies)
- [ ] 72 hour RUSH (surcharge applies)
- [X] Standard (5-7 bus. days)
- [ ] Other: Specify

Matrix Code: S Soil; W Water; A Air; O Oil; P Wipe; GW Ground Water; SW Surface Water; WW Waste Water; X Other: Specify Coal

Remarks:

Comments: Index + PCA: 40480 36501

Relinquished By:	Date/ Time	Received By:
Jenny Lang	7/23/13 1:37 PM	UPS
Relinquished By: UPS	Date/ Time	Received By: UPS
Relinquished By:	Date/ Time 7/25/13	Received By Laboratory:

LAB USE ONLY:
Fibertec project number: 57135
Laboratory Tracking:
Temperature at Receipt: 0.30c

COC Revision: April, 2006

TERMS & CONDITIONS ON BACK

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Lang, Jennifer (DEQ)

From: Marianne Gay <mgay@fibertec.us> on behalf of Lab <lab@fibertec.us>
Sent: Tuesday, October 15, 2013 11:17 AM
To: Lang, Jennifer (DEQ)
Subject: FW: DTE Harbor Beach Additional Analysis Results (57135)
Attachments: 57135mdeq02.pdf

Report attached per your request.
Marianne

From: Kyleen Crandall **On Behalf Of** Lab
Sent: Thursday, September 12, 2013 10:20 AM
To: Kilmer, Susan (DEQ)
Subject: DTE Harbor Beach Additional Analysis Results (57135)

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Fibertec
environmental
services

Thursday, September 12, 2013

Fibertec Project Number:	57135 Supplemental
Project Identification:	DTE HARBOR BEACH /
Submittal Date:	07/25/2013

Ms. Susan Kilmer
Michigan Department Environmental Quality-AQD
525 W. Allegan Street
Constitution Hall-3N
Lansing, MI 48909

Dear Ms. Kilmer,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note samples will be disposed of 30 days after reporting date.

All samples were analyzed by Mineral Labs.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

Daryl P. Strandbergh
Laboratory Director

DPS/kc

Enclosures

Client Identification:	Michigan Department Environmental Quality-AQD	Sample Description:	FUEL OIL Second Jar	Chain of Custody:	NA
Client Project Name:	DTE HARBOR BEACH	Sample No:	3	Collect Date:	07/22/13
Client Project No:	NA	Sample Matrix:	Oil	Collect Time:	11:30

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Ash Analysis (ASTM D3174) — Aliquot ID: 57135-003 — Matrix: Oil — Analyst: ML

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Ash (NN)	<0.02		%	NA	1.0	NA	NA	08/29/13 00:00	NA

Chlorine Analysis (ASTM D4208) — Aliquot ID: 57135-003 — Matrix: Oil — Analyst: ML

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Chlorine (NN)	<50		ppm	NA	1.0	NA	NA	08/29/13 00:00	NA

Sulfur Analysis (ASTM D4239) — Aliquot ID: 57135-003 — Matrix: Oil — Analyst: ML

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Sulfur (NN)	0.0800		%	NA	1.0	NA	NA	08/29/13 00:00	NA

BTU Analysis (ASTM D6865) — Aliquot ID: 57135-003 — Matrix: Oil — Analyst: ML

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. BTU (NN)	19840		BTU/lb	NA	1.0	NA	NA	08/29/13 00:00	NA

Definitions/ Qualifiers:

- **A:** Spike recovery or precision unusable due to dilution.
- **B:** The analyte was detected in the associated method blank.
- **E:** The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
- **J:** The concentration is an estimated value.
- **M:** Modified Method
- **U:** The analyte was not detected at or above the reporting limit.
- **X:** Matrix Interference has resulted in a raised reporting limit or distorted result.
- **W:** Results reported on a wet-weight basis.
- ***:** Value reported is outside QA limits

Exception Summary:

ACCREDITED IN ACCORDANCE WITH nelac

Accreditation Number:

E-10395

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