

TRAINING REPORT FORM  
AIR POLLUTION EMISSION SOURCES

FACILITY: Progress Energy – Intercession City Plant		DISTRICT: Central	COUNTY: Osceola
ADDRESS: 6525 Osceola Polk County Line Road Intercession City, Florida 33848		CONTACT: Jamie Hunter (Manager) Martin Drango (Plant Manager)	
ARMS#	PERMIT #: 0970014-007-AV	EXPIRATION DATE: December 31, 2012	
SOURCE DESCRIPTION: Combustion Turbine			
TRAINING DATE: June 20, 2012	AUDIT TYPE: Compliance Training Session	FACILITY STATUS: Annual Stack Test Unit P-7	
<p>TRAINING NOTES/COMMENTS:</p> <p>I visited the above facility for compliance training regarding procedural aspects of combustion turbine annual stack testing. The training was coordinated by Gary Kuberski (FDEP Air Training Coordinator) and was attended by John Vigliotti (FDEP) and myself. Progress Energy representatives, Mr. Jamie Hunter &amp; Mr. Martin Drango provided their assistance during the training as well.</p> <p>The facility is an electrical power generating site that has fourteen combustion turbine peaking units (P1 - P14). Units P1 – P6 are identical turbines and fired with No. 2 distillate oil Units P7 - P10 &amp; P12 – P14 are identical GE gas turbines and can be fired with natural gas or distillate oil Unit P11 is a Siemens V84.3 turbine fired with distillate oil</p> <p>The facility was conducting the annual stack test of unit P7 during our visit. The unit had failed the stack test for natural gas the previous week prior to our visit. The CO levels were above the theshole limit of 21 lbs./hr. The unit had passed the test when fired with No. 2 distillate oil. The control limit for NOx is 25ppm/hr. Mr. Hunter informed us that the unit needed to be tuned to obtain a better balance for the ratio of CO &amp; NOx to pass the control limits. Note: CO &amp; NOx are inversively proportional. The tuning consisted injecting more water into the unit. Three runs for unit P7 natural gas firing was completed during our visit, the CO levels were between 15.1 – 16 lbs/hr. and the NOx was around 21ppm/hr. (see attached RATA forms)</p> <p>Mr. Hunter &amp; Mr. Drango provided us with specific details regarding plant operations, plant equipment and basic plant design. A copy of the plant diagram was also provided. We visited the facility control room and one of the CEM stations on site. The facility has NOx monitors for units P7 – P14 on sites. We observed the stack test team on site performing test on unit P-7. They were in the process of measuring the NOx &amp; CO levels during RATA run #3. Listed below are the gas certification expiration dates for audit gases use by stack test team.</p> <p>CO2 low 12-27-14 &amp; CO2 span 07-20-14 CO low 01-04-14 &amp; CO span 01-18-15 NOx low 06-11-14 &amp; NOx span 12-20-13 NO2 04-14-14</p> <p>In conclusion, the training opportunity was a very beneficial and productive experience for Department staff members in attendance. It increased our knowledge and understanding of the process for compliance stack testing of electrical power generating turbines. It also enhanced our knowledge of the chemistry components for emissions from natural gas fired turbines.</p>			
Writer(S) NAME(S): Patrick Washington			
SIGNATURE(S):			DATE: June 21, 2012

Intercession City - P7 RATA Run 1 Data - 06/20/2012

Date/Time	P7: GAS_EPA (HSCFH) Raw Value	P7: GEN (MW) Raw Value	P7: NOX_RT (LBMMBTU) Raw Value	P7: NOX_C15_G (PPM) Raw Value
6/20/2012 11:26	9,630.90	73.4	0.076	20.7
6/20/2012 11:27	9,622.80	73.4	0.076	20.7
6/20/2012 11:28	9,630.90	73.3	0.078	21.2
6/20/2012 11:29	9,622.80	73.4	0.078	21.3
6/20/2012 11:30	9,622.80	73.3	0.077	20.9
6/20/2012 11:31	9,630.90	73.3	0.078	21.1
6/20/2012 11:32	9,622.80	73.4	0.078	21.2
6/20/2012 11:33	9,630.90	73.4	0.078	21.3
6/20/2012 11:34	9,630.90	73.3	0.078	21.2
6/20/2012 11:35	9,622.80	73.4	0.078	21.3
6/20/2012 11:36	9,630.90	73.4	0.078	21.3
6/20/2012 11:37	9,622.80	73.4	0.078	21.3
6/20/2012 11:38	9,630.90	73.3	0.078	21.1
6/20/2012 11:39	9,630.90	73.3	0.077	21
6/20/2012 11:40	9,630.90	73.4	0.077	21
6/20/2012 11:41	9,630.90	73.3	0.077	20.9
6/20/2012 11:42	9,630.90	73.3	0.077	21
6/20/2012 11:43	9,639.00	73.4	0.077	21
6/20/2012 11:44	9,630.90	73.4	0.077	21
6/20/2012 11:45	9,622.80	73.3	0.077	20.9
6/20/2012 11:46	9,630.90	73.4	0.077	21

Average: 9,628.59 73.36 0.08 21.07

CO (lb/mmbtu) 0.017  
 LHV (mmbtu/hr) 888.6  
 15.1

Intercession City - P7 RATA Run 2 Data - 06/20/2012

Date/Time	P7: GAS_EPA (HSCFH) Raw Value	P7: GEN (MW) Raw Value	P7: NOX_RT (LBMMBTU) Raw Value	P7: NOX_C15_G (PPM) Raw Value
6/20/2012 11:57	9,630.90	73.4	0.077	20.9
6/20/2012 11:58	9,630.90	73.4	0.077	20.9
6/20/2012 11:59	9,630.90	73.3	0.077	20.8
6/20/2012 12:00	9,630.90	73.4	0.077	20.8
6/20/2012 12:01	9,630.90	73.4	0.077	20.8
6/20/2012 12:02	9,630.90	73.4	0.077	20.8
6/20/2012 12:03	9,630.90	73.3	0.077	20.8
6/20/2012 12:04	9,630.90	73.3	0.078	21.1
6/20/2012 12:05	9,622.80	73.4	0.078	21.1
6/20/2012 12:06	9,622.80	73.4	0.078	21.1
6/20/2012 12:07	9,630.90	73.3	0.077	21
6/20/2012 12:08	9,630.90	73.4	0.077	20.9
6/20/2012 12:09	9,622.80	73.4	0.077	20.8
6/20/2012 12:10	9,630.90	73.3	0.077	20.9
6/20/2012 12:11	9,622.80	73.4	0.077	21
6/20/2012 12:12	9,630.90	73.4	0.078	21.2
6/20/2012 12:13	9,630.90	73.4	0.078	21.2
6/20/2012 12:14	9,630.90	73.4	0.078	21.1
6/20/2012 12:15	9,622.80	73.4	0.078	21.1
6/20/2012 12:16	9,622.80	73.4	0.077	20.9
6/20/2012 12:17	9,630.90	73.4	0.077	20.9

Average 9,628.59 73.38 0.08 20.96

CO (lb/mmbtu) 0.018  
 LHV (mmbtu/hr) 887.7  
 CO (lb/hr) 15.98

Intercession City - P7 RATA Run 3 Data - 06/20/2012

Date/Time	P7: GAS_EPA (HSCFH) Raw Value	P7: GEN (MW) Raw Value	P7: NOX_RT (LBMMBTU) Raw Value	P7: NOX_CT5_G (PPM) Raw Value
6/20/2012 12:28	9,630.90	73.4	0.077	20.9
6/20/2012 12:29	9,630.90	73.4	0.077	21
6/20/2012 12:30	9,630.90	73.3	0.077	21
6/20/2012 12:31	9,630.90	73.4	0.077	21
6/20/2012 12:32	9,622.80	73.4	0.077	21
6/20/2012 12:33	9,630.90	73.4	0.077	20.9
6/20/2012 12:34	9,630.90	73.4	0.077	20.9
6/20/2012 12:35	9,630.90	73.3	0.077	20.9
6/20/2012 12:36	9,622.80	73.4	0.077	21
6/20/2012 12:37	9,630.90	73.4	0.076	20.8
6/20/2012 12:38	9,622.80	73.4	0.075	20.4
6/20/2012 12:39	9,630.90	73.4	0.077	20.8
6/20/2012 12:40	9,622.80	73.4	0.077	21
6/20/2012 12:41	9,622.80	73.3	0.078	21.1
6/20/2012 12:42	9,622.80	73.4	0.077	21
6/20/2012 12:43	9,630.90	73.3	0.077	21
6/20/2012 12:44	9,630.90	73.4	0.077	21
6/20/2012 12:45	9,622.80	73.3	0.077	20.9
6/20/2012 12:46	9,630.90	73.4	0.076	20.7
6/20/2012 12:47	9,630.90	73.4	0.076	20.7
6/20/2012 12:48	9,622.80	73.4	0.077	20.9
Average	9,627.81	73.38	0.077	20.90

CO (lb/mmbtu) 0.018  
 LHV (mmbtu/hr) 890.4  
 CO (lb/hr) 16.0