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Prior to the Inspection

Prior to the inspection, Ms. Theresa Horgan did a partial file review at Pennsylvania Department of the Environment (PADEP) in Norristown, Pennsylvania. Ms. Horgan e-mailed a list of information (See Attachment 2) only a few days prior to the inspection that U.S. Environmental Protection Agency (EPA) was requesting to be partially available during the inspection at Covanta Delaware Valley L.P. This information was also sent by e-mail to PADEP.

Introduction

On Wednesday, March 14, 2007, Ms. Theresa Horgan and Mr. Kurt Elsner of EPA arrived around 8:30 a.m. at Covanta Delaware Valley, L.P. (will be referred to as Covanta throughout this report) to begin an air compliance inspection. Covanta is located at 10 Highland Avenue in Chester, Pennsylvania. It was a clear sunny day with the winds approximately 5 - 10 miles per hour out of the south and high temperature around 72F. We estimated the temperature to be 60F. As we entered the facility, we saw drums/buckets being transferred to the roof on the west side of the building which is shown in Photo #1. Ms. Horgan verified that this was not part of the process but involved with some maintenance work being done.

Mr. Eugene Bonner (Environmental Engineer) of Covanta led us to a conference room. Mr. David Brown and Mr. George Eckert of Pennsylvania Department of Environmental Protection (PADEP) joined us for the inspection. Ms. Theresa Horgan and Mr. Kurt Elsner presented their credentials to verify that they work at EPA and introduced themselves. Ms. Theresa Horgan (EPA) explained that she is with EPA Region 3. She further explained that Region 3 includes Pennsylvania, Delaware, Maryland, Washington D.C., Virginia, and West Virginia. Ms. Horgan said that EPA was at Covanta to conduct a full air compliance inspection. Ms. Horgan stated that she has been to a number of facilities including those with medical waste incinerators, printing and publishing facilities, and other types of industry. Ms. Horgan stated that she has been an inspector at the local level and at the federal level. She stated that she has been at EPA for six (6) years.

Mr. Kurt Elsner introduced himself as part of the Office of Air Enforcement and Permits Review. Mr. Elsner explained that he spends half his time in Air Enforcement and the other half of his time as a State Liasison Officer. Mr. Elsner explained that the state liasision officers in Region 3 oversee eight (8) state/local enforcement programs that have been delegated sections of the Clean Air Act. He stated that he was assisting Ms. Theresa Horgan; and that Ms. Horgan is the lead for this inspection.

Mr. George Eckert introduced himself as permit writer and plan approval person with PADEP. Mr. David Brown introduced himself as the inspector of Covanta and the City of Chester (missed other areas of Mr. Brown's responsibility). Mr. Brown stated that he has done

two (2) full inspections at Covanta and that he has had this field area since 2003. Mr. Brown stated that he has been at Covanta several times; including, during a number of stack tests.

Ms. Theresa Horgan explained that the inspection includes an overview and history of the facility and process, a review of all the air sources at the facility, a physical walk-through inspection, and a records review to verify compliance with the Title V Operating Permit. The Title V Operating Permit includes the requirements for the Municipal Waste Combustors (MWCs) and other applicable requirements &/or regulations applicable to the facility. Ms. Horgan stated that she uses a tape recorder to supplement her note-taking and to ensure that she accurately reports the inspection.

Ms. Horgan requested that if any information (verbal or written) is considered confidential that Covanta inform her and mark the information CONFIDENTIAL so that she can manage and treat the information accordingly. Ms. Theresa Horgan announced that she will be taking photos and recording process operating parameters of equipment (such as temperatures, etc.) during the inspection walk-through.

Mr. Gene Bonner introduced himself as the environmental engineer for ten (10) years at this facility. He expressed a concern about the purpose of the photos and what the photos would be used for. Ms. Horgan explained that the photos stay with the inspection report; however, she stated that a person could obtain the photos through the Freedom of Information Act (FOIA). Mr. Bonner stated that if a person obtains the photos through a FOIA; that is one thing. He said that he thought that since we were government officials that we had the ability to take photos. Ms. Horgan confirmed that EPA does. Mr. Bonner stated that he heard of people taking photos without telling a facility what they were for; and, then later the facility (not this facility) was surprised how they were used. Mr. Elsner asked Mr. Bonner if he was the only person doing environmental at this facility. Mr. Bonner said yes; but, there was a separate safety person at the facility.

Overview

Brief Description of Equipment Based on File Review

Six (6) Westinghouse - O'Connor mass-burn rotary combustors each having a thermal rating of 194 million BTU per hour (mmBTU/hr) and each rated at 448 tons per day (tpd) nominal, for municipal waste having a higher heating value of 5,200 BTU per pound. The emissions from each combustor is controlled by an individual dry acid scrubber and a pulse-jet cleaning type fabric filter or baghouse.

Brief Background/History (Mr. Eugene Bonner)

1988	- Permitting of the facility known as American Ref-Fuel
1990	- The facility was originally built by Westinghouse. Construction occurred through 1989 and 1990.
June 1991	- Westinghouse started operations with six (6) combustor boiler units. Mr. Bonner stated that there has been no expansion of the facility since it was built.
April 1997	- Westinghouse sold the facility to American Ref-Fuel. Mr. Bonner started working at the facility in March 1997.
June 2005	- Facility became Covanta Energy Inc. The operator of this facility is Delaware Valley L.P. The name of this facility is Delaware Valley Resource Recovery Facility and this is listed on the permit.

Mr. Elsner asked about Covanta Energy Inc. Mr. Bonner stated that there are 31 Waste-to-Energy facilities throughout the U.S. and some other types of facilities (including wood boilers) in California. Mr. Elsner asked where Covanta's headquarters was located. Mr. Bonner stated that head-quarters is in Fairfield, New Jersey. Ms. Horgan asked if any landfills were owned by them. Mr. Bonner stated that there were no landfills.

Covanta in Delaware Valley Operating Schedule

Covanta accepts 98% municipal waste and approximately 2% industrial or residual waste in Pennsylvania. Mr. Elsner asked about the number of employees at this location. Mr. Bonner stated that there were 112 employees (non-union) consisting of 60 to 75 employees that are operators/maintenance workers and the remaining employees are engineers, supervisors, accounting, safety, and environmental. Covanta operates 24 hours a day and 7 days a week. Mr. Bonner stated that there are 12-hour shifts. He further explained that there are actually four (4) operating shifts in order to cover vacations and time off. The shifts are usually called 7 to 7; although the employees may come in an hour earlier so they may be 6 to 6. There are four (4) operating shifts. Mr. Elsner asked if the number of people have been about the same over the last 10 years. Mr. Bonner stated that the number of people have been steady; but, he estimated that there is about a 15% turnover a year.

Process Description (Given by Mr. Eugene Bonner)

Using the process flow diagram on the wall (See Photos #2 through #7 of Roll 1), Mr. Bonner described the combustors as an O'Conner Water-tubed (absorbs heat) Rotary Combustors. Mr. Bonner explained that they have a tipping floor since they do not have a crane. Refuse (waste) is received into an enclosed tipping area up to a maximum permitted receipts rate of 2,800 tons per day (tpd). The maximum allowable quantity of waste that can be stored inside the building is 10,000 tpd. The incoming waste is dumped on the floor or directly into a refuse pit.

Mr. Bonner explained that there are six (6) lines with identical equipment. Each combustor is an O'Connor mass-burn rotary water-wall combustor (See Attachment 3) that has a 24-hour averaging carbon monoxide (CO) emission limit.

Mr. Bonner said that the waste is fed onto inclined conveyors that go up four (4) stories and feed hoppers that are about 20 feet high. Mr. Bonner said that there is a ram that periodically pushes waste into the combustor. The combustor rotates approximately 3 revolutions per hour (rph). The length of the combustors is approximately 50-feet long with a diameter of approximately 17-feet. After the waste enters the combustor, it takes approximately 40 to 45 minutes to burn the waste at a temperature around 2300F. A forced draft (F.D.) fan pushes the air into the combustion chamber and at the other end (prior to the stack) there is an induced draft (I.D.) fan that pulls exhaust gases up through the boiler section and the control system into the stack and out to ambient. There are tubes in the boilers and there are tubes in the superheater and the economizer. The heat from the combustion chamber will heat the water in the tubes and boil it. The steam produced will be used to turn a turbine to generate electricity.

The exhaust gases are pulled up through the boiler into the dry scrubber where lime is sprayed into the rotary atomizer at the top of the scrubber to treat the acid gases. Ms. Horgan asked about the lime that is used. Mr. Bonner explained that pebble lime is loaded into a silo and then a slaker mixes water into the lime which is then sprayed into the spray dryer to control HCl and SO_2 . The flow rate is controlled by both the HCl and SO_2 continuous emission monitoring systems (CEMS) at the outlet. The spray dryer is a Joy Spray Drier. The temperatures of the gases entering the dry scrubbers are approximately 446F and the gases exiting the dry scrubber are approximately 293F. The exhaust gases exiting the spray dryer then go to a pulse jet fabric filter or baghouse. There are six (6) cells in each baghouse and approximately 1440 bags in each baghouse or approximately 240 bags per cell.

The exhaust gases exiting the baghouse go through an I.D. fan into a duct that enters into the stack. Ms. Horgan asked what the flow rate of the gases is at the stack. Mr. Bonner said that it varies; but, he thought it was around 75,000 dry standard cubic feet per minute (dscfm) to 80,000 dscfm for each flue at approximately 110-feet up. The stack is rectangular and is approximately 300 feet high. There are six (6) flues that go into the stack. The diameter of each flue in the stack is approximately 61-inches or 66-inches. Mr. Elsner clarified that if all six (6) combustors were operating at the same time that the flow rate would be around 6 x 75,000 dscfm. Mr. Bonner stated yes and that all six (6) combustors are operating approximately 92% to 93% of the time.

Combustor Operating Parameters

The steam load, fabric filter inlet temperature, and combustion temperature are the operating parameters that Covanta monitors in addition to the emissions information obtained from the CEMS and continuous opacity monitoring system (COMS) for each combustor. Ms.

Horgan asked what the steam load is. Mr. Bonner stated that each unit this year can be operated at 161,000 pounds per hour (#/hr) steam; however, Covanta typically operates around 140,000 - 145,000 #/hr steam. Ms. Horgan asked how this was established. Mr. Bonner stated that it was from stack testing. Ms. Horgan asked if the steam load data is required for an hourly basis. Mr. Bonner stated that Covanta has minute data for steam load and almost all other data. Ms. Horgan asked if the minute data is averaged over 4-hours because she would like to look at the 4-hour steam load data.

Mr. Bonner stated that Covanta underestimated the steam load for years by using the average steam load from the three (3) stack tests instead of using the highest steam load from the stack tests and then multiplying by 110% to obtain the allowable maximum steam load. Mr. Bonner stated that at least one stack test was usually ran around 147,000 #/hr steam and that the allowable (110% x 147,000 #/hr) would be over 161,000 #/hr steam. Ms. Horgan stated that she read that the combustor was designed for 155,100 #/hr steam and wanted to know what it is now. Mr. Bonner stated that he would have to talk to his engineering department; however, he said that when they were looking for a permit change that they (Covanta) went to their engineering department. The engineering department felt that Covanta could safely operate at 161,000 #/hr steam and that is what Covanta asked for when they asked for a permit change. Mr. Bonner explained that the rating is dependent on fuel and other variables.

Ms. Horgan asked about the maximum fabric filter inlet temperatures. Mr. Bonner stated that he keeps it below 290F. Ms. Horgan asked about the combustion temperature. Mr. Bonner stated it is about 2300F even though it can be 2100F. Mr. Bonner stated that the temperature is usually over 2000F. Ms. Horgan asked if that was due to PADEP regulations. Mr. Bonner stated that PADEP requires that the combustion temperature be over 1800F for 1-second residence time. Ms. Horgan asked if the temperature read at a certain thermocouple is added to a factor (850F) in order to get the representative combustion temperature. Mr. Bonner stated yes.

Ms. Horgan asked if there were any other parameters monitored. Mr. Bonner listed the pollutants monitored as including NO_X, SO_2, HCl, CO, O_2 (inlet & outlet), opacity and the operating parameters of steam load, combustion temperature, and fabric filter inlet temperature. Mr. Bonner stated at one time Covanta monitored combustion efficiency (CO_2); but, instead now there is CO interlock. Covanta received approval to monitor CO instead of combustion efficiency from PADEP.

Ms. Horgan asked if there was a list of operating parameters and acceptable ranges for the operators to operate each of the combustors within. Mr. Bonner stated that there is a system up in the control room where the operators can see the limits and can project the average value needed for a parameter in the upcoming hours to ensure the limit will be met. Ms. Horgan asked to see this information during the inspection walk-through.

Ash

There are two (2) types of ash. Mr. Bonner gave Ms. Horgan a narrative description of ash handling (See Attachment 4). The first type is fly ash which includes ash from the scrubbers and baghouses and the second type is bottom ash from the bottom of the combustor. Mr. Bonner explained that most of the fly ash is collected in the baghouses and some fly ash drops down out of the scrubbers into a hopper. The fly ash is collected in enclosed conveyors and transferred to an ash house and into a silo. Fly ash from the silo is released into a pug mill to be conditioned. The fly ash is mixed with water in a pug mill and then the wetted fly ash is dropped onto the bottom ash that already had the metals removed from it. The combined ash is then dumped onto the ash house floor.

The bottom ash drops down the burner grate. The bottom ash then gets quenched, is pushed up under the slip sticks, and then the bottom ash is vibrated along the metal slip stick into the ash house. The bottom ash is conveyed to ferrous metals recovery where ferrous metals are separated and removed using a mechanical separating device (grizzly) and the materials drop onto another conveyor where a rotary magnet removes some of the smaller metals and travels under the pug mill.

Mr. Bonner stated that Covanta has approval to install a non-ferrous metals recovery system including aluminum removal. Ms. Horgan asked if nickel was ferrous or non-ferrous and if this would help reduce the nickel emissions. PADEP previously issued a Notice of Violation to Covanta for exceeding nickel emissions on a stack test. Based on the file reviewed, the facility retested and is in compliance at this time. Mr. Bonner stated that it would not help the nickel emissions since this (the metals removal) is after the combustion process. Ms. Horgan forgot that the metals removal is done after the combustion process instead of prior to combustion process.

Turbine Generator

Electricity is generated from the steam produced in the combustors. Mr. Bonner stated that 90 megawatts are generated at the site and that Covanta uses approximately 10 megawatts. The other 80 megawatts are sent to the PECO (Pennsylvania) grid to Connectiv in New Jersey. Ms. Horgan asked for a description of the generating unit. Mr. Bonner stated that it was a GE (General Electric) unit which is now Westinghouse. Mr. Bonner stated that it is an elaborate steam system where steam is sent to the steam drum. The steam from the steam drum is sent to power the turbine which is a turbine generator.

Continuous Emission Monitoring Systems (CEMS)

Covanta has the CEMS and COMS listed below:

-Sulfur dioxide (SO_2) inlet & outlet
-Hydrogen chloride (HCl) outlet

-Nitrogen oxide (NO_X) outlet
-Carbon monoxide (CO) outlet
-Dry Oxygen (O_2) inlet prior to scrubber & outlet (dry O_2, wet O_2, & moisture)
-Opacity (COMS) up in the stack

Ms. Horgan asked if Covanta was able to keep the acid gases controlled using the lime in the scrubber. Mr. Bonner answered yes. He stated that the NO_X emissions are around 140 ppm to 150 ppm and that the 180 ppm limit is not often approached.

Maintenance of the Combustion Operations

Ms. Horgan started asking questions about maintenance. Ms. Horgan asked about the Operations and Maintenance (O&M) Plan and asked to see that it has be revised annually since 2003, 2004, 2005, and 2006. Mr. Bonner stated that changes made more recently are documented; whereas previously, changes were made without written notations. Ms. Horgan asked to see what Covanta had and also requested a copy of the manual.

Ms. Horgan asked how frequently maintenance was done on the combustors. Mr. Bonner stated that the availability of the combustors is approximately 88% to 93% depending on the year. Mr. Bonner stated that each year, Covanta likes to take one (1) full major outage for each unit for approximately eight (8) days. Mr. Bonner explained that during the outage that they are working on incline conveyors; looking at rams; changing out tubes; working on combustor if needed; repairing fly ash conveyors, afterburner grates and ash extractors; checking that the steam drums are operating properly; inspecting the duct work outside; checking the baghouse and changing the bags &/or metal cages and tube sheets; and maintaining the I.D. and F.D. fans. Ms. Horgan asked if there is a computer system with maintenance. Mr. Bonner stated that there was a MP-2 maintenance computer system presently. Ms. Horgan asked to see some maintenance records. Mr. Bonner stated that the maintenance supervisor could show us the system in his office.

Ms. Horgan asked how else the equipment is maintained besides a major outage. Mr. Bonner stated that if there is a problem with the conveyor that it would be repaired. He also stated that if a tube blows, then it may need to be welded. Ms. Horgan asked if walk-through inspections are done. Mr. Bonner stated that the maintenance supervisor could explain the program much more. Mr. Bonner stated that there is a morning meeting every day to discuss any problems with equipment and to develop a list of things to work on. He explained that there is another meeting later in the day around 2:30 p.m. to discuss what has been done. Mr. Bonner stated that priorities are set as different jobs come up. He also stated that there has been a Preventative Maintenance (PM) group; and, at other times some guys on a shift will do PM. However, Mr. Bonner said that he will let the maintenance supervisor explain it.

Combustor Operator Training Records

Ms. Horgan asked if everyone in the plant is trained and if they are fully trained. Mr. Bonner stated that everyone is trained for a few hours. Mr. Bonner explained that the training covers what's going on in the tipping floor and what to do in the control room if there is an upset for CO, etc. Mr. Bonner stated everyone gets general training on how the plant runs and on the general operations and maintenance of the plant.

Ms. Horgan asked about the people trained to be incinerator operators that have received the 40-hour training. Mr. Bonner stated that 20 people are trained and that he will give us a list of the people. Mr. Elsner asked about the job titles that would be trained. Mr. Bonner explained that there are two (2) trained control room operators at all times. He stated that the shift supervisors and all the safety supervisors have been trained to be shift supervisors. Mr. Bonner stated that there are ten (5) trained Chief Facility Operators (CFOs) and ten (10) trained and fully certified Shift Supervisors (SS). Mr. Bonner stated that he would give EPA the list (See Attachment 5).

Ms. Horgan asked about annual training and asked what training a new person gets. Mr. Bonner stated that they get general training on the O&M manual.

Waste

Ms. Horgan asked how much waste is received in a day. Mr. Bonner stated that they are allowed to take in 5250 tons per day (tpd) from Monday through Friday; and 1100 tpd is allowed to be taken in on Saturday unless it is a holiday weekend. If it is a holiday weekend, then 3000 tpd can be taken in on Saturday and no waste is received on Sunday.

Ms. Horgan asked for a description of the waste. Mr. Bonner stated that 98% is municipal waste and 2% is residual waste. The residual waste includes plant trash from industrial facilities and pharmaceutical waste. Ms. Horgan asked what the pharmaceutical waste was. Mr. Bonner stated that it includes pills and powders. Ms. Horgan asked if solvents were in the waste. Mr. Bonner said no. Ms. Horgan asked how Covanta ensures that they are not receiving hazardous waste. Mr. Bonner stated that they do random throw downs on approximately 5% of the trucks with incoming waste. Ms. Horgan asked what throw downs were. Mr. Bonner explained that the waste is dumped on the floor, the waste is spread out, and then someone looks at the waste. Mr. Browne asked if that was done on the residual waste. Mr. Bonner said throw downs are done on all waste.

Ms. Horgan asked if Covanta receives any certification from the facilities that deliver pharmaceutical waste or residual waste stating that there is no hazardous waste. Mr. Bonner stated that the facilities have to fill out a Form U. Ms. Horgan asked what that means. Mr. Bonner stated that a Form U for residual waste (not hazardous waste) is filled out and that this

form is signed stating that the information is true and accurate. Ms. Horgan asked if Covanta has contracts with the haulers or facilities that deliver waste. Mr. Bonner stated that there may be contracts but he wasn't sure that it dwelt much on that (hazardous or non-hazardous waste).

Ms. Horgan asked where most of the waste comes from. Mr. Bonner stated that approximately 35% of the waste is from Delaware County (trucks), 10 % from the City of Philadelphia, and the remaining waste is approximately equally divided from New Jersey and New York.

Ms. Horgan asked for the total amounts and types of waste for 2003, 2004, 2005, and 2006. Ms. Horgan asked how much waste is incinerated in a year. Mr. Bonner stated approximately 1.05 million to 1.2 million tons of waste per year were incinerated.

Radioactive Waste and Other CFC Containing Waste

Ms. Horgan asked if Covanta had radiation detectors. Mr. Bonner stated that there are radiation meters prior to the two (2) inbound scales. Mr. Bonner expressed frustration that he has to go out and scan waste trucks that contain contaminated waste from people (who received radiation or chemotherapy) that are let out of the hospital. Ms. Horgan asked what happens if a truck enters and sets off the radiation detector (hot truck). Mr. Bonner stated that the truck is put aside in the queuing yard and then the truck is scanned again to find the location of the hot spot on the truck. Mr. Bonner said that an isotope identifier is then used to identify the radioactive isotope on the truck. He explained that if the isotope is one certain medical isotope (technetium 99 or TC-99M) that it deteriorates within a day so the truck containing the waste can sit around for a day until the isotope decays before processing it. He said that this may account for 10% to 20% of the trucks that trigger the radiation meter.

Mr. Bonner said that an overwhelming percent of the time that the radiation meter is triggered is due to Iodine-131 isotope. He explained that I-131 is allowed to go to a Pennsylvania landfill or back to the generator provided the generator is a permitted facility and not a hauling company. Ms. Horgan asked if Covanta can track the hot truck. Mr. Bonner stated that they know what transfer station or hauler brought the waste. If the waste came from a transfer facility and can get DOT transfer papers for the waste from PADEP; then, the waste can be sent back to the transfer facility. However, if the waste came from a hauling company, then PADEP requires that the waste is sent to an acceptable location.

Ms. Horgan asked how much hot waste is detected. Mr. Bonner estimated approximately ten (10) trucks a month. Mr. Bonner estimated that approximately 96% of the waste is returned since a lot of the waste comes from a transfer facility.

Refrigerant (CFCs/HCFCs) & Bulkies

Ms. Horgan asked if Covanta has people trained in CFCs/HCFCs to handle equipment such as refrigerators, air conditioners, and other equipment containing CFCs that are in the waste. Mr. Bonner stated that Covanta does not deal with CFCs except from their own moving equipment. He said that most of the bulkies are taken out so a nearby metals recycler that has trained people who can remove the CFCs. Mr. David Brown (PADEP) asked who the metals recycler is. Mr. Bonner stated that there were different ones; but, he answered that one is Recycle Metals. Mr. Bonner said that he would have to ask a few people for more information on the CFCs and the metals recycler.

Ms. Horgan asked if Covanta had trained people to handle CFCs. Mr. Bonner stated that they have two (2) trained mechanics for Covanta's equipment. Ms. Horgan asked if Covanta had any equipment with over 50 pound refrigerant capacity. Mr. Bonner stated that the only equipment that he could think of was the big loaders and he did not know what the refrigerant capacity was for them. Mr. Bonner stated that a contractor is brought in for the heating and ventilation systems. Ms. Horgan asked what size these heating and ventilation systems were. Mr. Bonner did not know.

Ms. Horgan asked if there have been any problems with refrigerators getting stuck. Mr. Bonner said that he didn't recall refrigerators; but, other issues such as big tree trunks, rear of a car, springy or banding type metal, and big pieces of masonary. Mr. Bonner stated that they usually catch the big stuff; but, they don't catch everything. He stated that if they don't catch everything, they pay for it later.

Ms. Horgan asked what is done with the unwanted materials such as the tree trunks. Mr. Bonner explained that there is a pile where the bulkies such as sofas and hot water heaters are put. Ms. Horgan asked what happens to the materials in the pile. Mr. Bonner answered that if it is a lot of metals that it can go to the metals recycler and if it is bulkies then it may go to a landfill such as Rolling Hills in Berks County that is owned by Delaware County.

Malfunctions and Start Up/Shutdowns

Ms. Horgan asked what happens with malfunctions or CEMS exceedances. Mr. Bonner stated that the CEMS exceedances are dealt with in the quarterly reports and fines. Mr. Bonner stated that if there is an incident such as a tipping fire or other event that might come to the attention of the community that Covanta is required to report the incident by phone and to write a report. Mr. Bonner stated that there haven't been too many incidents or malfunctions that totally disrupt the plant in a way that causes air pollution. Ms. Horgan asked if PADEP is notified. Mr. Bonner stated yes and explained that at one time they were calling for everything until PADEP clarified that the intent was for malfunctions or incidents that resulted or caused air emissions.

Ms. Horgan asked what happens if there is a NO_X increase. Mr. Bonner explained that usually NO_X is not a problem. He said that if the CO increases too high that Covanta goes into a corrective action mode and tries to correct the problem. Ms. Horgan asked if Covanta goes into a shutdown or corrective mode often. Mr. Bonner said that if there is a boiler tube problem such as a leak; then, they know the problem is only going to get bigger so they will take the unit down.

Ms. Horgan asked if Covanta goes into a shutdown mode if the concentration of a pollutant is too high. Mr. Bonner stated that there are cease feeds or interlocks for CO, opacity, furnace temperature and dry O_2 if the concentrations or values are too high for over a 15-minute time period. Mr. Bonner stated that this hardly happens since they can usually take corrective actions.

Ms. Horgan asked if excess emissions are reported. Mr. Bonner said that there is a semi-annual deviations report where the data is reported. Ms. Horgan asked if all the emissions data is reported during start-ups and shutdowns. Mr. Bonner stated that the CEMS data (including all the start-ups and shutdowns) is included and reported in the Air Inventory Monitoring System (AIMS).

Emissions

Mr. Bonner stated that PADEP recommended taking two-thirds (2/3) of the PM10 emissions to estimate Particulate Matter of 2.5 microns (PM2.5); so, that is what Covanta does. Mr. Brown explained that the facility (Covanta) fills out forms (electronic forms are now available) that PADEP sends. The PADEP inspector then enters the data into AIMS. Mr. Brown explained that the facility may use stack test information or AP-42 to estimate emissions. Mr. Brown explained that different estimating methods give slightly different results that may explain the differences especially for emissions below the reporting thresholds that Ms. Horgan was asking about. Ms. Horgan asked how the emission fees are determined. Mr. Brown stated that the company calculates the emissions and sends in the fees determined (there is no bill or invoice). He also stated that PADEP does a cross check. He said that there is no bill or invoice.

Ms. Horgan asked if there is any control equipment that would be practical to reduce emissions. Mr. Bonner stated that practical is a matter of money to business people. He stated that Covanta doesn't have a big issue for dioxins or mercury so a carbon system is not needed. Ms. Horgan asked about additional NO_X control. Ms. Horgan mentioned that NO_X emissions were 1119 tons in 2003 and 1257 tons in 2005. Ms. Horgan asked if there was a system to bring down these NO_X emissions. Mr. Bonner stated that putting in a urea system would; but, that it costs a lot of money and also introduces additional operational issues. He stated that the more equipment that is added, the more potential for operational issues at some time. He said that the NO_X emissions could be brought down; but, the equipment is not easily operated.

Ms. Horgan asked about the 120 ton increase of NO_X from 2003 to 2005 and asked about the steam loads. Mr. Bonner stated that the availability in certain years is better than other years. He stated that 2003 was not a good year. Mr. Bonner stated that the maximum steam load that Covanta has agreed to is 161,000 pounds of steam per hour averaged over a 4-hour block; even, if they test and show compliance at higher levels during the dioxin/furan testing.

Ms. Horgan said that she was trying to understand the emission numbers. Ms. Horgan stated that she was looking at numbers for CO emissions of 310.8 tons in 2003, 281.6 tons in 2004 and 359.5 tons in 2005. Mr. Bonner stated that another factor that impacts flow rate is how much air is sucked into the duct work after all the air pollution controls. He said the more air sucked in, then the more inflated the numbers are. Ms. Horgan asked if Covanta uses the actual CEMS number to calculate the emissions. Mr. Bonner answered yes.

Ms. Horgan asked about HCl emissions. She stated that HCl emissions were 57.1 tons in 2003 and were 71.7 tons in 2005 and that she was trying to figure out why the difference. Mr. Bonner stated that there is more plastic bags in trash. He also said that they have to be careful with how much lime they add to the system so that they don't blind or cake their bags with wet lime causing operational problems with the baghouse. Mr. Bonner stated that the emission limit is 25 parts per million (ppm) for HCl. He further stated that it is a balancing act with SO_2 and HCl emissions. Mr. Bonner stated that they may try keep the SO_2 at 80% reduction using the geometric mean and that may mean that the HCl emissions are 10 ppm or 17 ppm.

Ms. Horgan asked to see 1995 emissions. Mr. Bonner stated that might be difficult since it was Westinghouse then. Mr. David Brown of PADEP said that it is in the AIMS. Ms. Horgan stated that she was trying to see if the emissions were higher or lower now. Mr. Bonner said that in general the availability is better now. He said that the availability when it was Westinghouse was probably 81% or 82% so the emissions may have been lower because it was operated less.

Ms. Horgan asked if there was any bypass stack or way to bypass the control equipment. Mr. Bonner stated that there is no bypass stack. Ms. Horgan asked what would happen if the flue gas temperature was too high. Mr. Bonner stated that Covanta can feed lime slurry or water to lower flue gas temperature. He said that they would not run the unit with flue gas temperatures at 500F. He said that the unit would be shut down for a while if it reached 350F. Mr. Bonner stated that Covanta would do something to reduce a high inlet fabric filter temperature because they need to meet the 4-hour fabric filter inlet temperature and need to prevent equipment problems.

Regulations

Ms. Horgan asked if there was any major changes/modifications or if new equipment was installed that would trigger New Source Performance Standards (NSPS). Mr. Bonner stated no.

Other Equipment

There are two (2) cold parts degreasers. Ms. Horgan asked for a description of the units. Mr. Bonner stated that they are big boxes with grates that go up and down. He said that a part is placed on the grate and that when the lid is closed; then, the grate with the part is lowered into the bath of solvent. He said that when the lid is opened that the grate comes up. They are Safety Kleen units that use Safety Kleen 105 Solvent. Ms. Horgan asked for the MSDS. Ms. Horgan was given an old MSDS with a revised date of March 12, 1990 that stated that the vapor pressure was 2-millimeters of mercury (mm Hg) for Safety-Kleen 105 Parts Washing Solvent (See Attachment 9B). After asking about the vapor pressure, Mr. Bonner obtained a more recent MSDS with a revised date of October 2005 that stated the vapor pressure for this solvent was 0.4 mm Hg at 68F (Attachment 9A).

There is a water cooling tower with six (6) cells. In addition, there is a lime silo that is approximately 30-feet high above the slakers. The slakers are about 10-feet. It was estimated that the silo holds approximately 750 tons of lime. Approximately 18 to 20 tons per day (tpd) of lime is used or 0.7 tons per hour (tph).

Mr. Bonner asked about EPA's special Excel program and what the requirements were to belong to this program. Mr. Kurt Elsner described how a facility's compliance status is tracked in OTIS. Mr. Elsner showed and explained an OTIS report we had on his facility. Mr. Elsner explained the meaning of high-profile violator and pointed out how it was indicated on the report in the past.

Inspection Walk-through

Mr. Bonner led us (Mr. David Brown, Mr. George Eckert, Mr. Kurt Elsner, and Ms. Horgan) on the inspection walk-through around 1:00 p.m. We walked through the maintenance and loader shop areas. We looked at a Safety Kleen degreaser or cold parts washer that is depicted in Photo #8 of Roll 1. There was a 4,000-gallon diesel tank and a diesel pump. See Photo 9 of Roll 1for a photo of the diesel dispensing pump. Ms. Horgan was introduced to Mr. Joe Gifford. Ms. Horgan asked for his refrigerant certification (See Attachment 8) and the types of equipment and refrigerant that he works on. Mr. Gifford stated that he works on the loaders and works with Refrigerant 134A.

After leaving the maintenance area, we proceeded to the Tipping Floor area where the trucks dump the waste onto the floor and then it is piled up (See Photos #10 & #11 of Roll 1). Photo #10 depicts a trash truck on the south side of the Tipping Floor and Photo #11 is the north side of the Tipping Floor. Ms. Horgan did not notice any odors of significance. Ms. Horgan asked if there were any odor complaints. Mr. Bonner stated that there have not been any odor complaints within the last four (4) years. Ms. Horgan scanned through the roof vent logs (See Attachment 10 for a blank form) to verify that they were being done consistently on a daily basis.

Next, we proceeded to the Maintenance Warehouse for equipment and process spare parts. The building was very organized with spare parts including tubes, flow meters, thermocouples, transmitters, filter bags, and many other parts. Mr. Ron Liberatore (Covanta) showed us around and pointed out the parts (See Photos #12 & #13 of Roll 1). Photo #12 depicts shelves with spare parts and Photo #13 shows boxes of spare bags for the baghouse. After leaving the Maintenance Warehouse, Photo #14 was taken as we started our walk toward the truck weigh scale area. Photo #14 is an overview of the facility (looking east).

Photo #15 is a partial overview of the truck weigh scale area. Photo #16 is a close-up of the radiation detection machines at the truck weigh scales. As we continued our walk, we passed a contract welding operation (See Phot #17) that was located outside on the west side of the property. We arrived at the location where waste is conveyed to the combustors. There was a waste oil tank with some liquid in it located in the southwest corner of the Tipping Floor next to two (2) 55-gallon drums. Photo #18 depicts a front end loader pushing trash to conveyors on the tipping floor. Photo #20 shows the steepness of the waste conveyor for Incinerator #6 and Photo #21 is a closer view of the same conveyor.

Photo #22 is an overview of the Tipping Room looking north as we continued our walk toward the MWC Control Room. We also looked at a diesel fire pump with day tank and a small boiler along the way. The nameplate information for this equipment is listed below:

Diesel Fire Pump:	Cummins NT855F3; 290 HP, 1760 RPM; 300 HP, 2100 RPM
Day Tank:	500-gallon capacity; approx. 80-120 gallons
Boiler:	Weil McLain, Boiler Model 878; Oil = 7.5 gph Steam = 2771 squarefeet; 886#/hr or MBH

In the MWC Control Room, we could view the combustors from a number of screens. Photos #23 through #25 show some of the screens that the MWC operators watch. Photo #24 depicts Conveyor #2 and Photo #25 shows waste going to Boiler #5. A number of questions were directed to the operators to explain the process and the operating parameters that they monitor. Mr. Bruce Griffith was the lead control operator at the time of our walk-through. Mr. Griffith has been working at Covanta since approximately 1990. He was very helpful in explaining the process information on the screens and the video screens that we were looking at. Attachment 13 has process data sheets obtained during the inspection walk-through for sixty minute averages, daily compliance, and one-minute averages. Data recorded from instruments in the control room during the walk-through are listed below:

	Continuous	1-Hour
Steam Load (kilopounds per hour(KPPH)) for Boiler #5:	173	155.8
for Boiler #4:	136	124.4
for Boiler #6:	171	115

	Boiler #4	Boiler #5	Boiler #6
Steam Flow (KPPH)	141	179	177
Feed Water Flow (KPPH)	123	169	143
Drum Level (inch)	-.7	-.9	-.6
Drum (psig)	757	794	797
Econ. Out Pressure (psig)	763	883	808
Prim. Superheater Outlet (F)	683	654	not record

	Boiler #1	Boiler #2	Boiler #3
Steam Flow (KPPH)	137	132	156
Feed Water Flow (KPPH)	109	99	118
Drum Level (inch)	-1.9	not record	not record

SDA Outlet Temperature (F) for Boiler #1: 290
for Boiler #2: 292
for Boiler #3: 290
for Boiler #4: 284
for Boiler #5: 290
for Boiler #6: 286

Other Information Recorded But Not Record Boiler Number

Baghouse Inlet Temperature	<= 300F
Temperature Out of Boiler	446F
Steam Drum	771 psig
Economizer	781 psig @ 444F
Steam out of Boiler	168 KPPH steam flow 811F
Water into Pugmill	6 - 7 gallons per minute

Ash (approx. 50 tons per hour (tph)); 30% ash = flyash which is approx. 15 tph of flyash

We mostly looked at Boiler #1 on the inspection walk-through. Each of the six (6) individual boiler/control systems is comprised of separate, but identical equipment. The photos referred to below are from Roll #2. The fire inside the combustion chamber of Boiler #1 is depicted in Photo #1 and the discharge end of Boiler #1 is depicted in Photo #2. Photos #3 through #5 show the bottom ash from Boiler #1. Some of the materials (unburnt) from Boiler #1 are large and are easily seen in Photo #5. Exhaust gases exiting Boiler #1 enter the SDA (See Photo #11). Lime is sprayed inside the SDA (See Photo #8). The gases exiting the SDA then go through a Baghouse #1 and then to the stack to ambient air. A partial view of Baghouse #1 is shown in Photo #10 and another partial view (3-cells) of Baghouse #1 is shown in Photo #9. Photo #12 shows the outlet from Baghouse #3 to the main stack. All six (6) boilers or MWCs are individually ducted to the main stack. Photo #14 shows an overview of the outlets for Boilers #4, #5, & #6 going to the main stack.

We looked at the continuous emission monitoring system records in the CEMS Room at approximately 3:10 p.m. We looked at the SDA outlet for CEMS #1, #2, #3, #4, #5, and backup. The transformer and switch yard is shown in Photos #6 & #7. As we finished up our inspection walk-through we looked at two (2) diesel air compressors and a sandblast grit trailer for refractory. Photo #13 depicts the sand blasting grit trailer for boilers. Photo #15 shows a rotary magnet used to remove metal from the bottom ash. Photo #16 depicts two (2) steam relief stacks. We finished the inspection walk-through at approximately 3:40 p.m.

Second Day of the Inspection (March 22, 2007)

The inspection was continued approximately eight (8) days after the initial visit in order to finish reviewing records for compliance status. Ms. Theresa Horgan and Mr. Kurt Elsner from EPA and Mr. David Brown from PADEP met Mr. Eugene Bonner at approximately 12:30 p.m. on Thursday, March 22, 2007.

Records Review

Ms. Horgan asked for the waste records to verify that less than 10% of the waste incinerated is residual waste. Mr. Bonner said that he sends in quarterly solid waste reports. Mr. Bonner stated that Covanta is allowed to burn over a million tons for waste a year and that in any given quarter the amount of residual waste is approximately 6,000 to 7,000 tons.

Ms. Horgan asked about the daily records for odors, visible emissions (VEs), and fugitives. Ms. Horgan stated that she recalled seeing some records at the vent area. Mr. Bonner stated that we could go upstairs to see the other records on Webview and in some notebooks. Ms. Horgan also asked to look at the pollution control system performance evaluations, calibration checks, and maintenance. Mr. Bonner stated that we could look at the maintenance logs and also the computer system.

Ms. Horgan read the requirements for daily, monthly, and 12-month consecutive records for quantities and classifications of solid waste combusted. Mr. Bonner said that he had those records. Ms. Horgan agreed to look at the records from 2002 to 2006.

Ms. Horgan asked how to verify that less than 120 hours (5 days) of waste is stored and if the allowable amount of waste was 14,310 tons (5 days x 477 tons/unit x 6 units/day). Mr. Bonner stated that he thought that it was 14,200 tons; but, he would have to look at his solid waste permit. Ms. Horgan stated that the 14,200 tons was less than what she calculated and she did not request further verification. Ms. Horgan asked if the pressure in the tipping area is maintained by pulling room air into the incinerator chamber. Mr. Bonner stated that they try to keep the roof vent shut, try to have only one door open on the entrance and exit side, and pull in air from the forced draft (F.D.) fan inlet.

Ms. Horgan stated that she had read 155,100 pounds steam per hour in some documents; but, read 161,000 pounds steam per hour in the permit. Ms. Horgan asked how that number was changed. Mr. Bonner stated that when the facility became American Refuel in 1997, the engineers looked at what steaming capacity could be safely done. The engineers decided that 161,000 pounds steam per hour could be done safely. Ms. Horgan asked if Covanta requested a modification for that capacity. Mr. Bonner said that they had to get a permit before American Refuel assumed operation. He also stated that they wanted to change some things in the permit so they incorporated the 161,000 pounds steam per hour into the permit request. The 161,000 pounds steam per hour was approved and included in the permit.

Ms. Horgan asked for the training certificates for the refuse operators. Mr. Bonner gave Ms. Horgan a Qualified Refuse Operator list (See Attachment 5). Mr. Bonner explained that the column labeled Part 1 in Attachment 5 was for provisionally qualified refuse operators and the column labeled Part 2 is for fully qualified refuge operators.

Ms. Horgan asked for the annual training records. Mr. Bonner stated that training is set up for a full day of training each week usually in June. He explained that MACT (Maximum Achievable Control Technology) is part of that training. Mr. Bonner showed Ms. Horgan the sign in sheets for a number of people. Ms. Horgan asked for the 2006 annual training on the O&M. Ms. Horgan asked Mr. David Brown (PADEP) if he checked training for earlier years. Mr. Brown said that he usually checks training for the last year. As Mr. Bonner went through his books for annual training, Ms. Horgan checked off the people on the list (Attachment 5) that he had training sign in sheets. Mr. Bonner stated that he would check on the training for the people that were not checked off. Mr. Bonner emailed additional information on annual training shortly after EPA left the facility (See Attachment 5A). Ms. Horgan does not have any information for Mr. Brian Shell, Mr. Steve Hohbein, and Mr. Jared Farney.

Ms. Horgan asked if Covanta tested the lime storage silo for PM emissions since the Title V Operating Permit required testing if PADEP requested it. Mr. Bonner stated no and clarified that they use good engineering practices. Ms. Horgan is not aware of PADEP requesting any testing for the silo. Ms. Horgan asked for the daily exhaust sheets on the lime silo. Mr. Bonner stated that these are part of the daily VE inspection walk-through that we haven't looked at yet.

Ms. Horgan asked if the CEMS are recording emissions during start-up and shutdown for up to three (3) hours. Mr. Bonner stated that they do.

Ms. Horgan asked if Covanta knows why nickel emissions have been high (above Pennsylvania's limit). Mr. Bonner did not know why. Ms. Horgan stated that the Title V Operating Permit emission limits are based on a pounds per hour basis and on a flow rate of 68,679 dscfm. Ms. Horgan asked what Covanta typically runs at. Mr. Bonner stated that he has seen numbers at 70,000 cfm and 80,000 cfm which is influenced by the amount of air that is being sucked in by the I.D. fan into the ducts.

Ms. Horgan asked about the dispersion modeling for each stack test for each combustor. Mr. Bonner stated that they have done the ambient air modeling for the last six (6) events. Mr. David Brown asked Mr. Bonner if his understanding is that every time Covanta tests that the ambient air modeling is done. Mr. Bonner stated no. Mr. Bonner said that his understanding was that when Covanta is below 80% of the permitted emission limits and don't get into the semi-annual mode of testing; then he doesn't believe that they have to do the ambient air modeling. He said that for PM10 which has been over 80% of the permitted limit (never over the limit) that they had to do modeling. He showed information that Covanta did modeling in December 2003 and July 2004. Mr. Bonner showed Ms. Horgan the information listed below:

1) Letter dated March 4, 2005 - Modeling: Annual Ambient Air Quality Modeling Analyses December 2003/July 2004 for nickel testing on Unit #3 in December 2003 and three (3) copies of ambient analysis report for Summer 2004 stack testing event. The report was dated January 2005.

2) Letter dated December 7, 2006 - Modeling: Annual Ambient Air Quality Modeling Analyses for nickel testing on Unit #1 in November 2005 and three (3) copies of ambient analysis report for Spring 2006 stack testing event. Report was dated December 2006. Report dated September 1998.

3) Letter dated September 15, 2006 - Modeling: Annual Ambient Air Quality Modeling Analyses December 2004 / July 2005 for nickel testing on Unit #1 on December 15, 2004 and three (3) copies of ambient analysis report for Summer 2005 stack testing event. Report was dated September 2006. Report dated September 1998.

Mr. Eugene Bonner asked if the technique to do the ambient modeling has changed. Mr. David Brown stated that there is a new EPA preferred modeling and that facilities should submit a protocol. After the inspection, Ms. Horgan verified with Mr. Andrew Fleck of PADEP that additional ambient air modeling files existed. Mr. Fleck told Ms. Horgan that he had files for the dates and pollutants listed below:

December 2002 - January 2003 for nickel
June 2003 for stack modeling
December 2004 for nickel
May 2005 - July 2005 for stack modeling
November 2005 for nickel
May 2006 for stack modeling

Ms. Horgan asked Mr. Fleck about stack modeling for 2004. He said that he did not have that file; but, that he thought that it was at another location and has not been sent yet.

Ms. Horgan asked for the records of the thermocouples replaced quarterly for 2003 through 2006. Mr. Bonner brought out some binders with information that the thermocouples were calibrated. Mr. Bonner stated that at one time, Covanta had one old set of thermocouples that were taken out and then a new set of thermocouples were put in. He stated that the old set of thermocouples would be calibrated and that calibration sheets would be obtained for them. Ms. Horgan asked how Covanta knows the date that a thermocouple was put in. Mr. Bonner stated that after the thermocouples are put in then the thermocouples are checked. Mr. Bonner decided to get some additional information to show us this.

Mr. Bonner showed one record for Baghouse #1 that testing was done on December 17 and he said that they change the thermocouple before doing that. Ms. Horgan asked if she could link a thermocouple number for a unit to a calibration record. Mr. Bonner said that it may not be on all the reports. Ms. Horgan asked if there is a maintenance report that states what thermocouple is installed. Mr. Bonner stated not really. Mr. David Brown summarized that there are two (2) thermocouples for the combustor and one (1) thermocouple for each baghouse; for each unit; so, there is a total 18 thermocouples for six (6) combustors. Ms. Horgan glanced through a number of quarterly reports in EPA's files to see that the thermocouples are being replaced.

Ms. Horgan asked about the 4-hour data for fabric filter inlet temperatures. Mr. Bonner stated that they generate minute data that goes to hourly data that goes to 4-hour data that goes to 24-hour data. Ms. Horgan asked when Covanta looks at the 4-hour data. Mr. Bonner stated that the data is written down every hour. He said that Covanta sends the quarterly reports to PADEP and that PADEP takes the hourly data and generates their own 4-hour and 24-hour data. Ms. Horgan said that this is information (4-hour data for fabric filter temperature and steam load) that she should get from the facility. Ms. Horgan referred to page 50 of the Title V Operating Permit that states that the steam flow shall be calculated on 4-hour block averages. Mr. Bonner said that they do; but, it is on the computer. Ms. Horgan asked then if he could print out the data for 4-hour averages if she asked. Mr. Bonner said yes to a point; but, there is so much information to keep track of. Mr. Bonner stated that he had the 4-hour averages for the steam load that was requested to be available during the inspection for 2004, 2005, and 2006 printed out. Mr. Bonner gave Ms. Horgan the requested steam load information for 2004, 2005, and 2006. Ms. Horgan scanned through the data later to verify that it is maintained and that the numbers generated were within the permitted limits.

Ms. Horgan asked if Covanta continuously monitors the lime slurry injection rate into the scrubber as required in Condition #038 on page 50 of the Title V Operating Permit. Mr. David Brown (PADEP) stated that the lime slurry injection rate is one of the parameters that is continuously monitored; but, it is not part of the CEMS data.

Ms. Horgan asked if Covanta has to cease operations for any of the list of items mentioned in the permit. Mr. Bonner stated that Covanta sends in interlock reports every quarter to PADEP. Mr. Bonner said that the interlocks shows that feeding of waste is stopped.

Ms. Horgan asked Mr. Bonner to explain invalid CEMS data. Mr. Bonner stated that PADEP has criteria for what is considered invalid data and coding of data. Mr. Bonner explained that if there is 3-hours of data for a 4-hour average then the average is valid; however, if there is only two (2) hours of data then there is not a valid averaging period. He explained that for a 24-hour averaging period, there is a requirement that 18 hours of valid data be available for a valid 24-hour averaging period. He explained that the code of II(13) is the only valid way to be down because it is the code that the process is down.

We went to the Inlet CEMS Room to see some of the maintenance logs for the CEMS at approximately 3:05 p.m. See Attachment 6 for a few records of the CEMS maintenance log. We verified that there were maintenance logs as listed below:

2002 -Book
2003 -Book
2004 -Book dated 1/26/04 to 4/23/2006
2005 -Book dated 1/26/04 to 4/23/2006
2006 -Book dated 1/26/04 to 4/23/2006
-MP2 (computer system)
-Looked at computer for 3/3/2006

We went to SS (Stainless Steel) Office to look at the daily VE, odor, and lime silo records. Mr. Alfredo Austin showed us records for March 2007 on the computer (Web View) and he also showed us the paper records for those dates that did not have data in the computer system (See Attachment 7).

Ms. Horgan asked about waste combusted that is reported as tons at 5200 mmBTU/# in the emissions report; but, then 4800 mmBTU/# heat content value is used to get an F-factor for estimating emissions. Mr. Bonner said that he has not been involved in any testing to determine a number and his boss is not aware of any Covanta facilities that have done any testing. Ms. Horgan stated that she was not sure if a Covanta plant in Virginia might have developed a site-specific factor.

Ms. Horgan asked about storage tanks on site. Mr. Bonner stated that there was a diesel above ground storage tank (4000-gallons), two (2) sulfuric acid tanks (6000-gallon & 2000-gallon), sodium hydroxide tank (6,000-gallons), lime silo, and slaker (water mixing with lime).

Summary of Information to be Provided

-Records of the residual waste and total waste records discussed earlier (EPA received records - See Attachment 11).
-Records of maintenance for the combustors and the control equipment (EPA received records).
-VOC emissions for the last 5 years (1-page summary sheets).

-Training records (received email later that day with some additional information); however, information on annual training for Mr. Brian Shell, Mr. Steve Hohbein, and Mr. Jared Farney is needed.
-% sulfur content for the diesel fuel oil.
- CFC certification for the other person and what equipment he works on.

Inspection Close-out Meeting

Ms. Horgan stated that a report will be written within one or two months. Ms. Horgan mentioned that there will be a section entitled "Area of Concerns" and recommended that Covanta address any items in that section.

Ms. Horgan thanked Mr. Bonner for all his work and his help throughout the inspection. Ms. Horgan stated that she would mention requirements from the permit such as the ambient air modeling certification attached with each stack test. Mr. Bonner stated that he can't do the modeling until he gets the results from the stack testing. Ms. Horgan stated that the requirement in the permit should be stated in such a way that it is feasible and can be done. Ms. Horgan stated that she might have additional questions. EPA thanked PADEP for participating in the inspection. Mr. Brown wrote up a one (1) page inspection report that Mr. Gene Bonner signed. Ms. Horgan requested a copy (See Attachment 12).

Area of Concerns

The concerns below will reference the Title V Operating Permit (Permit TV 23-00004) issued and effective on June 6, 2006 to Covanta Delaware Valley LP and citations in 40 CFR Part 60.

1. During the inspection Ms. Horgan asked about a few items listed below and is waiting to receive the information in order to determine compliance on the issues below:

- Technician certification for one (1) additional employee that handles refrigerant (CFCs/HCFCs) and description of types of equipment worked on with refrigerants .

- Certifications or proof that Metal Recycler and a few other facilities that Covanta sends equipment (bulkies) that contain or may contain CFCs/HCFCs have certified people who remove or handle the CFCs/HCFCs.

- Information on annual training for Mr. Brian Shell, Mr. Steve Hohbein, and Mr. Jared Farney is needed. Additional clarification of training qualifications or classifications; fully qualified or provisional Chief Facility Operator (CFO) or Shift Supervisor (SS), etc. for the list of employees.

Ms. Horgan is also looking at the F-factor calculations used and is waiting for some information from a more knowledgeable person in this area at EPA. Ms. Horgan may request additional information in order to verify hourly emission rates.

2. On page 20 of the Title V Operating Permit states "The permittee shall keep daily, monthly and 12 consecutive month records of the quantities and classification of all solid waste combusted and accepted at this facility in a format approved by the Department." At the time of the inspection, Mr. Bonner pulled out lots of folders with waste information in them. Mr. Bonner later summarized and emailed the information on a monthly basis for the last five year as requested. The above permit condition requires that 12-consecutive month records be kept and updated on a monthly basis.

Other Recommendations/Suggestions

3. Review the new 40 CFR Part 60 - Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Large Municipal Waste Combustors; Final Rule promulgated on May 10, 2006 (See Attachment 14 for the two (2) Federal Register notices). The existing 111(d)/129 Plan for your facility will be updated to be no less stringent than the emission guidelines in the above document. Some areas of the Federal Register notices that may be relevant to your facility are highlighted.

- The emission limit for mercury for existing MWC units on or after April 28, 2009 will be 50 micrograms per dry standard cubic meter or 85 percent reduction by weight corrected to 7 percent oxygen, whichever is less stringent instead of 80 micrograms per dry standard cubic meter or 85 percent reduction by weight corrected to 7 percent oxygen.

- Revision to the operator stand-in provisions in § 60.54b(c) and reconsideration to allow provisionally-certified control room operators to perform the duties of a certified CFO or certified SS.

4. Recommend more detailed tracking or documentation control for the O&M manual to include review dates of the O&M and revision dates. At the time of the inspection, Ms. Horgan could see a few dates over the years on a few pages that probably had some changes.

5. During the inspection walk-through, a contract welding operation was located outside. Recommend that if this operation is not a very temporary set-up with PADEP's approval, that the operation be enclosed and some controls installed.