

The July 12, 2017 Special Meeting of the Greater Hazleton Joint Sewer Authority was called to order by Acting Chairman Grink at 7:00 PM. All in attendance gave a pledge of allegiance.

Roll Call:

Ammon – Present	Boyarski – Present	Cuozzo – Present
Fayock – Present	George – Absent	Grink – Present
Milot – Present	Sherrock – Present	Zola – Present

Also in Attendance:

Christopher Carsia – Director of Operations	Gregory Olander – Operations Manager
Andrew Nowak – Field Operations Manager	Attorney Joseph D. Ustynoski – Solicitor
Eugene Zynel – Chief Operator	Ron Jager, P.E. – Gannett Fleming, Inc.

PUBLIC COMMENT

There was no public comment.

OPENING OF BIDS FOR FISCAL YEAR 2017-2018 PROPERTY & CASUALTY INSURANCE

BIDDERS NAME	TOTAL PREMIUM
Assured Partners, Inc. Wilkes-Barre, PA	\$107,018.00
Brown & Brown Insurance Bethlehem, PA	\$79,512.00
Weiss-Schantz Agency, Inc. Hellertown, PA	\$91,712.00

Ammon & Milot moved to table the bid for Fiscal Year 2017-2018 Property & Casualty Insurance pending review by Management and the Solicitor.

On the question: Board Member Zola asked what was used for the base bid. Christopher Carsia responded that the current insurance policy was the format that was used to structure the bid.

Roll Call: Ammon-yes, Boyarski-yes, Cuozzo-yes, Fayock-yes, George-absent, Grink-yes, Milot-yes, Sherrock-yes, Zola-yes

Christopher Carsia introduced the Authority’s Chief Operator and Ron Jager of Gannett Fleming for a presentation of information collected at the Thermo Oxidation (Incineration) Networking Event held in Cleveland, Ohio. Gene stated that he wanted to inform the Board on improvements that have already been made at the treatment plant to prepare for the incinerator and describe lessons that have been learned at other treatment plants with operation of their incinerators and ancillary equipment.

Gene stated that in order to get an autogenous or self-sustaining burn, the percent solids and volatile content in the sludge cake should be greater than or equal to 26% and 70% respectively.

He said consistency of the sludge is needed for better performance of the incinerator. Gene then noted that the treatment plant is already staffed 24 hours per day 7 days per week, which is necessary for continuous operation of the incinerator. He said a blending tank is already in place to mix the sludge for a more consistent feed and a system to accept and treat Fats, Oils, and Grease (FOG) has recently been installed to increase the volatile content in the sludge. Gene also stated that the Authority's robust hauled waste program currently helps to produce the 15 dry tons of sludge needed to fuel the incinerator; however, in the event there is growth of sewage customers connected to the system, the hauled waste can be scaled back to accommodate the future growth. Gene stated that a polymer blending system was also recently installed for more consistent sludge dewatering production. He then stated that the cake pumps needed for injection of sludge into the incinerator became operational about two years ago. He said the cake pumps have been easy to operate, but so far they have been costly to maintain.

Gene then stated that the volatile content in the sludge was averaging about 67% prior to the FOG receiving system becoming operational, but it is now maintaining 73% to 74% with the grease addition. He said 625,000 gallons of FOG were taken in since the system became operational in February 2017, which is an average of about 100,000 gallons per month. Board Member Zola asked how a proper balance would be ensured for burning in the incinerator. Gene responded that the blending of FOG waste into the sludge is fine-tuned now so it does not need to be learned when the incinerator becomes operational. Board Member Zola stated that the amount of sludge available to burn depends heavily on hauled waste and Gene agreed. Gene then stated that the addition of backwash coming from the BAF system increased the sludge at the plant by about 1/3 and he noted that the backwash sludge is very difficult to dewater and process.

Gene and Ron then noted some of the planned advantages that are included with the incinerator installation. Gene said that an upgrade for the system for reusing plant water is needed for the incinerator as well as providing a higher volume of cleaner water in the remainder of the treatment plant. Ron stated that plant water will be drawn from a new suction point after the BAF and UV disinfection. He said the new larger pumps would be installed with Variable Frequency Drives (VFDs) to automatically control volume and pressure. Ron then noted that a new centrifuge will be installed to produce a dryer sludge cake to allow for an autogenous burn.

Gene noted that oversizing of the incinerator has been a problem at other treatment plants across the company, but the Authority's 15 dry ton per day unit seems to be sized appropriately. He stated that the Cincinnati, Ohio plant produces too much sludge for one incinerator, but too little sludge to keep their second incinerator operating continuously. Gregory Olander noted that the Little Blue Valley plant in Kansas City, Missouri stops burning sludge at about 11 pm each day and resumes operation at 5 am on a 5 day work week. He said the incinerator is sized for 66 dry tons per day, but they are currently producing about 25 dry tons per day. Gene said the Authority is currently averaging about 11.84 dry tons per day, which is about 79% of capacity and will allow for future growth in the system. Ron stated that the Authority is in a good position because if the customer base ever grows beyond that level, hauled waste acceptance can be cut back to allow for future growth.

Ron then reviewed some of the lessons learned over the past few years with start-up of other incinerators. He said IDI (SUEZ) stopped installing short tuyers due to the increase likelihood of them becoming dislodged and now they only install long tuyers. He said the Authority's

incinerator has been designed using only the long tuyers. He noted that the refractory brick must be inspected annually for cracks or other problems so small cracks can be easily repaired. He said the annual inspection, which can include thermal imaging, allows for small problems to be identified and corrected before they become larger problems. He said the silica sand must be removed and the windbox inspected annually along with the piping and tuyers. He then noted that the USEPA changed the air regulations in 2011, which made it necessary to install additional air quality equipment. He said since this equipment is relatively new to the industry, other treatment plants have been troubleshooting issues with their installations over the past few years. The additional equipment includes a demister, tray cooler, Wet ESP, HEPA filters, Ammonia addition, caustic addition for pH control to prevent corrosion, and a Granulated Activated Carbon Adsorber (GAC) unit. He said the GAC has proven to be the most challenging system to operate due to problems that can occur including low carbon life, the potential for fire, and the carbon becoming a solid mass due to high acidity in the air. He said the demister was added to control moisture and the HEPA filters were added to limit particulates going into the carbon to reduce the need for washing or frequent carbon replacement. A start-up heater was also designed on the GAC to bring the air up to temperature before sending it from the incinerator into the GAC.

Gene reported that many of the incinerator plants have lagoons to capture the flyash water coming from the scrubbers. He said they require a large area, which the Authority does not currently have in close proximity to design location of the scrubbers. He said a vacuum filter is being installed to capture and dewater the ash for transport to a disposal location. Gene noted that some of the operational lessons learned are to keep the incinerator operational 24 hours a day and to limit the number of shut downs not due to scheduled maintenance; to have a consistent sludge feed to the incinerator, to perform an annual shut down for maintenance, and have dedicated staff to operate the incinerator. He said there will be a lot of problems that will need to be worked out when the unit is first started. Gene then stated that the larger plants have redundancy in the form of multiple incinerators or centrifuges, but this is cost prohibitive. He said the Authority will have the two (2) existing rotary presses as backup so the sludge can be dewatered and sent to landfill during incinerator or centrifuge shut downs for maintenance.

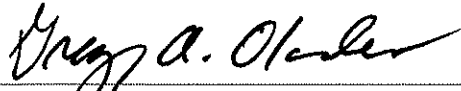
Board Member Cuozzo asked if there would be a need to increase staffing. Christopher Carsia responded that the Authority currently has about the same number of employee as it had in 1985. He said Gene would need to be freed up from some of his duties in the wet end of the treatment plant operations. Board Member Zola noted that Gene seems to have a high skill level and asked if he could be replaced in the wet end operations while spending more time on incineration. Christopher responded that Nick Petrone is the Assistant Chief Operator and he is capable of being more involved in the wet end operations of the treatment plant. He said the addition of one skilled employee may be necessary to assist when the incinerator goes online; however, that determination will be made at that time. Board Member Ammon asked if the additional employee was in the budget. Gregory Olander stated that the 5-year projections would include the additional employee.

Board Member Fayock requested the Board consider moving the meetings to 6:00 or 6:30 pm and it was discussed that the change would be put on the agenda at the next meeting.

Sherrock & Milot moved to adjourn.

Passed: Aye-8, Nay-0, Absent-1
The meeting was adjourned at 8:03 PM.

Respectfully submitted,
Greater Hazleton Joint Sewer Authority



Gregory Olander, Assistant Secretary