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POLLUTION CONTROL FINANCING AUTHORITY  
OF WARREN COUNTY

MINUTES OF REGULAR MONTHLY MEETING

May 22, 2017

Chairman James Cannon called the regular monthly meeting of the Pollution Control Financing Authority of Warren County to order at approximately 9:30 am.

Authority Members present: Bud Allen, Marc Pasquini, Joseph Pryor, Richard Mach and James Cannon.

ROLL CALL: Mr. Allen - Present  
Mr. Pasquini - Present (left at approximately 11:55am)  
Mr. Pryor - Present  
Mr. Mach - Present  
Mr. Cannon - Present

Also present: James Williams, Director of Operations; Ian Semmel, Warren County Finance Department; Brian Tipton, General Counsel; Edward Smith, Freeholder Deputy Director; Bob Johnston, CB&I / LFG Specialties; Chris Campman, CB&I / LFG Specialties; Richard Sander, Covanta Warren Energy; Richard Gesumaria, Covanta Warren Energy; Brian Heater, Landfill Working Foreman, PCFA; Crystal Gild, Recording Secretary.

The Pledge of Allegiance was led by Chairman Cannon.

Mr. Cannon read the following statement: "Adequate notice of this meeting of May 22, 2017 was given in accordance with the Open Public Meetings Act by forwarding a schedule of regular meetings of the Pollution Control Financing Authority of Warren County (PCFAWC) to the Warren County Clerk, the Warren County Board of Chosen Freeholders, the Express Times, and by posting a copy thereof on the bulletin board in the office of the PCFAWC. Formal action may be taken by the PCFAWC at this meeting. Public participation is encouraged".

MINUTES

Mr. Cannon presented the regular monthly meeting minutes from April 24, 2017.

**Mr. Allen** made a motion to approve the regular monthly minutes of April 24, 2017 as presented, seconded by **Mr. Pasquini**.

ROLL CALL: Mr. Allen - Yes  
Mr. Pasquini - Yes  
Mr. Pryor - Yes  
Mr. Mach - Abstain  
Mr. Cannon - Yes

Mr. Cannon presented the executive session minutes from April 24, 2017.

*Mr. Pryor* made a motion to approve the regular monthly minutes of April 24, 2017 as presented, seconded by *Mr. Allen*.

ROLL CALL:	Mr. Allen	-	Yes
	Mr. Pasquini	-	Yes
	Mr. Pryor	-	Yes
	Mr. Mach	-	Abstain
	Mr. Cannon	-	Yes

Mr. Cannon stated that there will be a presentation today and that Covanta is present to meet with the Board. Mr. Cannon also stated that Covanta could address the board after the presentation.

#### CORRESPONDENCE

Mr. Cannon noted that Mr. Pryor is on the sub-committee for approving donations such as the American Cancer Society donation request. Mr. Cannon asked Mr. Williams if we had donated to them before? Mr. Williams answered and stated that they had called and asked for a waiver of their disposal fees and that he believed their function was held this weekend. Mr. Williams stated that they were supposed to submit the request last month but that they had forgotten to get the letter to us. Mr. Williams also stated that he asked them to put a letter together requesting a fee waiver to the Authority and that is what is being presented today. He noted that he believes that they are not even bringing in a full dumpsters worth of material.

Mr. Cannon asked if we had waived their fee before and what the precedent is regarding this? Mr. Williams answered, no and explained that this is why he asked them to submit their request in writing. Mr. Williams noted that in the past the board has had discussions regarding entities and fee waivers.

Mr. Cannon addressed Mr. Pryor and asked for his opinion. Mr. Pryor stated that he would like a policy set that applies to everybody and suggested possibly setting aside monies in the budget for charities. He noted that he does not like picking and choosing who gets a waiver or donation.

Mr. Cannon asked Mr. Tipton if the form made previously for a similar issue covers this? Mr. Tipton answered, yes and that the form protects us from any liability. Mr. Cannon asked if we should have them fill out the same forms? Mr. Williams stated that he believes that the form Mr. Cannon is referring to is regarding insurance liability. Mr. Williams asked Mr. Tipton if he was correct? Mr. Tipton asked if this form was created regarding a road side clean-up? Mr. Williams and Mr. Cannon answered, yes. Mr. Cannon noted that he recalled that the form was designed to designate which entity was accepting liability if there was an issue when the materials were brought on site for example, if Gary W. Gray was bringing in the material would Gary W. Gray then be accepting liability if there was an issue.

Mr. Pasquini asked what the liability is that we are concerned with? He asked if we are concerned with the liability of the truck driving on to the property? Mr. Cannon answered, that in essence we are concerned with any liability, such as what someone threw into the container or anything else. Mr. Williams stated that such occurrences would fall back on the hauler that is bringing in the material. Mr. Williams also stated that we are listed as an additionally insured entity with Gary W. Gray because they are one of our regular haulers. Mr. Tipton stated that in this situation liability would not really be an issue since Gary W. Gray is already one of our contracted haulers.

Mr. Pasquini stated that what we need to do is set a standard to which in the future anyone who is looking for a charitable donation needs to follow a set process. Mr. Pryor stated that there should be criteria and a monetary limit set. Mr. Pryor also stated that he would like the charities being considered to have some connection to Warren County.

Mr. Cannon stated that there is already a document for situations like this that was set up by Mr. Tipton. Mr. Pasquini asked if the process was set? Mr. Williams stated that this issue was discussed approximately a year ago and what was established then was that the entity requesting the donation would have to submit a request in writing.

Mr. Pryor suggested granting this fee waiver request and that going forward we should set criteria such as the organization being 501(c)3 Non-Profit or at least having a connection to Warren County.

Mr. Cannon stated that other discussions regarding correspondence may be held during executive session.

Mr. Williams stated that last Thursday a letter came from the NJDEP giving Notice of Administrative Completeness to the PCFA for the Major Modification of Solid Waste Landfill Operating Permit. Mr. Williams also stated that this is good news and that Freeholder Deputy Director Smith deserves kudos, along with Cornerstone for their efforts made in getting the Administrative Review completed. Mr. Williams noted that we are slowly moving forward in a positive direction. Mr. Allen asked if this was a typical response time? Mr. Williams answered, yes and that the Technical Completeness response will be more in depth and take longer. Mr. Allen noted that he did not expect such a timely response.

Mr. Williams stated that Dave Dech asked for an extension to the Recycling Enhancement Act Tax Fund Entitlement for 2015. He noted that what they would like to do at the county level with the additional funding is to post website information regarding recycling and send out additional flyers and letters as well. Mr. Williams noted that he does not know if the extension has been granted yet but that the current entitlement runs through the end of May and that if the extension is granted it would run through the end of December. Mr. Williams also noted that if the extension is granted it would help to improve the County's recycling numbers through advertising and education.

#### PUBLIC COMMENTS (AGENDA ITEMS ONLY)

None

FINANCE (Ian Semmel)

Mr. Semmel stated regarding the finance report that the waste volume is down a little bit which Mr. Olshefski had noted was expected due to the couple of haulers that are no longer bringing in waste. Mr. Semmel also stated that the cash balances are still good and in line with where we are normally. Mr. Semmel noted that everything else seems to be lining up well and that there are no financial issues at this time.

Mr. Semmel stated regarding the 2016 Audit that the Audit was a clean Audit with no notes or recommendations coming from the Auditors. Mr. Pryor stated that there is a Certification that needs to be signed by the Board regarding the Audit. Mr. Pryor asked if the Board could now sign the Certification given that there we no notes or recommendations regarding the Audit? Mr. Cannon answered, yes. Mr. Williams notified the Board that Ms. Gild has the Certification that they need to sign and asked for the Board to see Ms. Gild and sign the Certification before leaving today.

Mr. Cannon presented the resolution to pay bills in the amount of \$495,314.25.

On a motion by **Mr. Allen**, seconded by **Mr. Mach**, the following resolution was adopted by the Pollution Control Financing Authority of Warren County at a meeting held on *May 22, 2017*.

**R E S O L U T I O N**

**R-05-01-17**

**To Pay Bills – May 22, 2017**

WHEREAS, the Pollution Control Financing Authority of Warren County has been presented with invoices for services, supplies and other materials rendered to it or on its behalf;

NOW, THEREFORE, be it resolved by the Pollution Control Financing Authority of Warren County that the following bills be paid:

*See Attached*

ROLL CALL:	Mr. Allen	-	Yes
	Mr. Pasquini	-	Yes
	Mr. Pryor	-	Yes
	Mr. Mach	-	Yes
	Mr. Cannon	-	Yes

We hereby certify Resolution to Pay Bills in the amount of **\$495,314.25** to be a true copy of a resolution adopted by the Pollution Control Financing Authority of Warren County on the *22<sup>nd</sup> day of May, 2017*.

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Crystal Gild  
Recording Secretary

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James Williams  
Director of Operations

Mr. Cannon presented the resolution for the Governing Body Certification of the Audit.

On a motion by *Mr. Pryor*, seconded by *Mr. Pasquini*, the following resolution was adopted by the Pollution Control Financing Authority of Warren County at a meeting held on *May 22, 2017*.

## **R E S O L U T I O N**

**R-05-02-17**

### **GOVERNING BODY CERTIFICATION OF THE ANNUAL AUDIT**

WHEREAS, N.J.S.A. 40A: 5-4 requires the governing body of every local unit to have made an annual audit of its books, accounts and financial transactions, and

WHEREAS, the Annual Report of Audit for the year 2016 has been filed by a Registered Municipal Accountant with the Secretary of the Board pursuant to N.J.S.A. 40A: 5-6, and a copy has been received by each member of the Authority; and

WHEREAS, R.S. 52:27BB-34 authorizes the Local Finance Board of the State of New Jersey to prescribe reports pertaining to the local fiscal affairs; and

WHEREAS, the Local Finance Board has promulgated N.J.A.C. 5:30-6.5, a regulation requiring that the governing body of each Authority shall, by resolution, certify to the Local Finance Board of the State of New Jersey that all members of the Authority have reviewed, as a minimum, the sections of the annual audit entitled "Comments and Recommendations; and

WHEREAS, the members of the Authority have personally reviewed, as a minimum, the Annual Report of Audit, and specifically the sections of the Annual Audit entitled "Comments and Recommendations, as evidenced by the group affidavit form of the governing body attached hereto; and

WHEREAS, such resolution of certification shall be adopted by the Authority no later than forty-five days after the receipt of the annual audit, pursuant to N.J.A.C. 5:30-6.5; and

WHEREAS, all members of the Authority have received and have familiarized themselves with, at least, the minimum requirements of the Local Finance Board of the State of New Jersey, as stated aforesaid and have subscribed to the affidavit, as provided by the Local Finance Board; and

WHEREAS, failure to comply with the regulations of the Local Finance Board of the State of New Jersey may subject the members of the local Authority to the penalty provisions of R.S. 52:27BB-52, to wit:

R.S. 52:27BB-52: “A local officer or member of a local governing body who, after a date fixed for compliance, fails or refuses to obey an order of the director (Director of Local Government Services), under the provisions of this Article, shall be guilty of a misdemeanor and, upon conviction, may be fined not more than one thousand dollars (\$1,000.00) or imprisoned for not more than one year, or both, in addition shall forfeit his office.”

NOW, THEREFORE BE IT RESOLVED, That the Board of the Pollution Control Financing Authority, hereby states that it has complied with N.J.A.C. 5:30-6.5 and does hereby submit a certified copy of this resolution and the required affidavit to said Board to show evidence of said compliance.

ROLL CALL:	Mr. Allen	-	Yes
	Mr. Pasquini	-	Yes
	Mr. Pryor	-	Yes
	Mr. Mach	-	Yes
	Mr. Cannon	-	Yes

Dated: 05/22/17

I hereby certify the above to be a true copy of a resolution adopted by the Pollution Control Financing Authority of Warren County on the date above mentioned.

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Recording Secretary  
Crystal Gild

Mr. Cannon stated for the record that there were no recommendations for the 2016 Audit.

Mr. Cannon presented the resolutions for Discretionary Allocation Funding and stated that Mr. Williams will be inviting the entities to have a representative present at the June 26, 2017 meeting to formally accept their checks. Mr. Cannon noted that pictures would be taken and this would be good PCFA Public Relations.

Mr. Cannon called for a motion to approve Resolutions R-05-03-17 through R-05-06-17 approving Discretionary Allocation Funding to the Township of Oxford, Oxford Volunteer Fire Department, Oxford Rescue Squad, and Mountain Lake Fire Company.

On a motion by *Mr. Pryor*, seconded by *Mr. Allen*, the following resolution was adopted by the Pollution Control Financing Authority of Warren County at a meeting held on *May 22, 2017*.

**R E S O L U T I O N**  
**R-05-03-17**  
**TOWNSHIP OF OXFORD**  
**DISCRETIONARY ALLOCATION FUNDING**

Resolution for Authorization to place within the 2017 budget of the Authority the amount of \$5,000 (five thousand dollars), to be paid to the Township of Oxford, with their principal address located at 11 Green Street, Oxford New Jersey 07863 for Discretionary Allocation Funding.

NOW, THEREFORE BE IT RESOLVED, by the Authority that the Discretionary Allocation Funding be paid in 2017 to the Township of Oxford, 11 Green Street, Oxford New Jersey 07863 in the amount of \$5,000.

ROLL CALL:     Mr. Allen                 -   Yes  
                  Mr. Pasquini           -   Abstain  
                  Mr. Pryor                 -   Yes  
                  Mr. Mach                 -   Yes  
                  Mr. Cannon            -   Yes

Dated: 05/22/17

I hereby certify the above to be a true copy of a resolution adopted by the Pollution Control Financing Authority of Warren County on the date above mentioned.

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Recording Secretary  
Crystal Gild

On a motion by *Mr. Pryor*, seconded by *Mr. Allen*, the following resolution was adopted by the Pollution Control Financing Authority of Warren County at a meeting held on *May 22, 2017*.

**R E S O L U T I O N**  
**R-05-04-17**  
**OXFORD VOLUNTEER FIRE DEPARTMENT**  
**FIRST RESPONDER DONATION**

Resolution for Authorization to place within the 2017 budget of the Authority the amount of \$1,500 (one thousand five hundred dollars), to be paid to the Oxford Volunteer Fire Department, with their principal address located at 14 Wall Street, Oxford New Jersey 07863 as a First Responder Donation.

NOW, THEREFORE BE IT RESOLVED, by the Authority that a First Responder Donation be paid in 2017 to the Oxford Volunteer Fire Department, 14 Wall Street, Oxford New Jersey 07863 in the amount of \$1,500.

ROLL CALL:     Mr. Allen                 -   Yes  
                  Mr. Pasquini           -   Abstain  
                  Mr. Pryor                 -   Yes  
                  Mr. Mach                 -   Yes  
                  Mr. Cannon            -   Yes

Dated: 05/22/17

I hereby certify the above to be a true copy of a resolution adopted by the Pollution Control Financing Authority of Warren County on the date above mentioned.

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Recording Secretary  
Crystal Gild

On a motion by *Mr. Pryor*, seconded by *Mr. Allen*, the following resolution was adopted by the Pollution Control Financing Authority of Warren County at a meeting held on *May 22, 2017*.

**RESOLUTION**

**R-05-05-17**

**OXFORD RESCUE SQUAD**

**FIRST RESPONDER DONATION**

Resolution for Authorization to place within the 2017 budget of the Authority the amount of \$1,500 (one thousand five hundred dollars), to be paid to the Oxford Rescue Squad, with their principal address located at 76 Academy Street, Oxford New Jersey 07863 as a First Responder Donation.

NOW, THEREFORE BE IT RESOLVED, by the Authority that a First Responder Donation be paid in 2017 to the Oxford Rescue Squad, 76 Academy Street, Oxford New Jersey 07863 in the amount of \$1,500.



ROLL CALL: Mr. Allen - Yes  
Mr. Pasquini - Abstain  
Mr. Pryor - Yes  
Mr. Mach - Yes  
Mr. Cannon - Yes

Dated: 05/22/17

I hereby certify the above to be a true copy of a resolution adopted by the Pollution Control Financing Authority of Warren County on the date above mentioned.

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Recording Secretary  
Crystal Gild

On a motion by *Mr. Pryor*, seconded by *Mr. Allen*, the following resolution was adopted by the Pollution Control Financing Authority of Warren County at a meeting held on *May 22, 2017*.

**R E S O L U T I O N**

**R-05-06-17**

**MT. LAKE FIRE COMPANY**

**FIRST RESPONDER DONATION**

Resolution for Authorization to place within the 2017 budget of the Authority the amount of \$1,500 (one thousand five hundred dollars), to be paid to the Mt. Lake Fire Company, with their principal address located at 99 Tammarack Road, Belvidere, New Jersey 07823 as a First Responder Donation.

NOW, THEREFORE BE IT RESOLVED, by the Authority that a First Responder Donation be paid in 2017 to the Mt. Lake Fire Company, 99 Tammarack Road, Belvidere, New Jersey 07823 in the amount of \$1,500.

ROLL CALL: Mr. Allen - Yes  
Mr. Pasquini - Abstain  
Mr. Pryor - Yes  
Mr. Mach - Yes  
Mr. Cannon - Yes

Dated: 05/22/17

I hereby certify the above to be a true copy of a resolution adopted by the Pollution Control Financing Authority of Warren County on the date above mentioned.

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Recording Secretary  
Crystal Gild

Mr. Williams presented the leachate treatment comparison analysis that he put together. Mr. Williams stated the numbers in the comparison reflect where we are as far as costs today and that it does not include the costs regarding using a leachate evaporation system. Mr. Williams noted that the leachate evaporation system would be discussed in today's presentation.

Mr. Williams stated that the numbers reflected on the analysis are our actual costs that we are currently paying to day for the on-site treatment and disposal to the PR (MUA) and the actual costs for trucking material off-site. Mr. Williams stated that as we continue along with the evaluations of different systems we may put into place he will keep adding to the comparison.

Mr. Cannon asked Mr. Williams to give the totals on the three separate entities. Mr. Williams stated that the current on-site costs are \$0.10333 per gallon and that this number includes existing treatment costs, on-site and disposal to PR (MUA). He stated that the T&M cost estimate is between \$0.0464 to \$0.0788 per gallon and he noted that he is not relying heavily on these numbers and that there are further evaluations that would be needed to firm up these numbers. Mr. Williams stated that our actual treatment costs are \$0.0810 per gallon.

Mr. Cannon asked what the gross numbers are? Mr. Williams stated that he based the numbers in the comparison analysis on the amount of leachate going through the treatment plant which is six million gallons annually and that this is half of what we produce here. Mr. Williams stated that if we were to continue the treatment and disposal to PR (MUA) the total for the year is \$619,980.00. He noted that the T&M cost range is from \$278,400.00 to \$472,800.00 annually. Mr. Williams also noted that the off-site trucking cost is \$486,000.00 per year currently. He noted that the hard numbers are the on-site treatment and disposal to PR (MUA) totals and the totals for the off-site trucking to Passaic Valley.

Mr. Pryor asked if the on-site treatment and disposal cost to PR (MUA) of \$619,980.00 is based on the assumption that we send our entire waste load to that receptor? Mr. Williams answered no and stated that this number is only based on the six million gallons going through our current system and that the other six million gallons of leachate are already being trucked off-site. He noted that if we processed our entire waste load this way the total cost would double.

Mr. Williams stated that currently we are saving \$3,000.00 per week or \$12,000.00 per month with the off-site trucking.

Mr. Cannon stated that the reason for having this comparison analysis put together for today's meeting was because he thought it would "dovetail" well with the CB&I presentation and that the board would have a better understanding of where we are going. Mr. Cannon stated that we would be able to add more to this analysis once we have numbers on the leachate evaporation process and more information regarding costs from Elizabethtown Gas.

## PERSONNEL

## PRESENTATIONS

Mr. Cannon asked Mr. Bob Johnston and Mr. Chris Campman from CB&I / LFG Specialties to address the board and give an overview of what they would be presenting today.

Mr. Johnston introduced himself to the board and stated that he is the Business Development Manager for LFG Specialties. He noted that LFG Specialties is the manufacturer of the Evaporator. Mr. Johnston also introduced Mr. Campman to the board and stated that Mr. Campman works for CB&I and is the North-East Consultant for LFG Specialties through CB&I.

Mr. Johnston gave a brief overview of the company's history and stated that they have been in business since 1987 and that they do not only produce evaporators but that they actually specialize in Landfill Gas.

Mr. Cannon asked the board if they had any questions before the presentation begins from their review of the PowerPoint presentation which was previously disbursed to them?

Mr. Cannon stated that he know that the evaporator runs 24/7. He asked Mr. Johnston if there is a minimum amount of leachate needed for the evaporator to run and if the evaporator's process would adjust if the leachate flow slowed? Mr. Johnston answered, yes and explained that the evaporators have a 2-1 turn down capability. Mr. Johnston stated that they strongly prefer that the evaporator not be turned off at any time due to thermal expansion and contraction that can occur from tuning the evaporator off and on and that this could shorten the life expectancy of the equipment.

Mr. Pryor asked if the evaporation process was continuous and if they would provide an operator for the evaporator? Mr. Johnston answered that they can provide an operator. Mr. Pryor asked how automated the evaporator is? Mr. Johnston answered that it is highly automated and that the PCFA operators that we currently have on-site could easily run the evaporator. Mr. Johnston also noted that they will train our operators on the equipment and that they demand that the operators be on-site during the last four to six weeks of construction for training. Mr. Johnston also stated that they are contracted to assist with issues for the next year after installation of the evaporator system.

Mr. Johnston stated that evaporator has an FT Connect built in which allow the engineers from their company to view our evaporator remotely from anywhere in the world. Mr. Johnston stated that this service is free of charge for the first year and after that it can be paid for monthly for approximately sixty dollars per month.

Mr. Cannon asked if we would reduce our leachate volume by 90% using the evaporator? Mr. Johnston answered yes and gave the example that they feed in 44,000 gallons of leachate to the evaporator and only 10% of that leachate goes back into the Landfill as a residual matter.

Mr. Johnston stated that if the evaporator is run on their ten year element safe style contract that they will be down twenty days out of the year to clean the evaporator and perform routine maintenance. Mr. Johnston also stated that they guarantee to destroy 40,000 gallons of leachate per day in their contract.

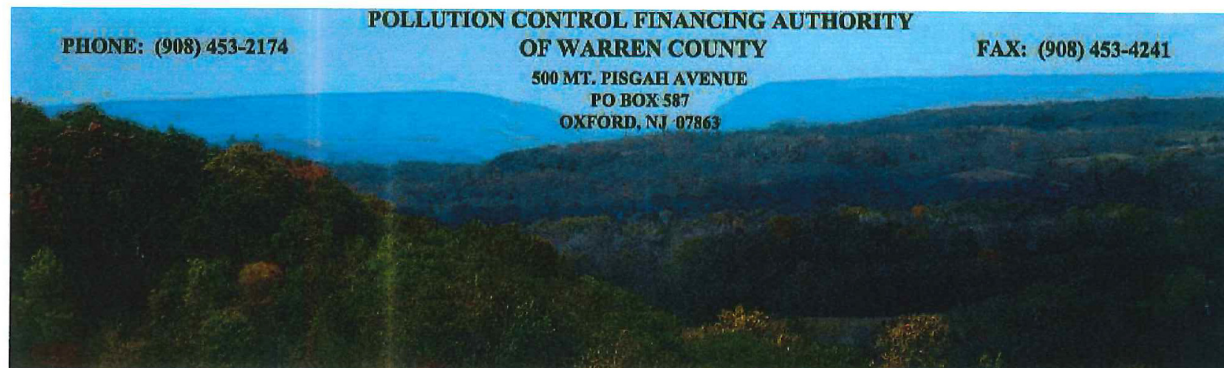
Mr. Pryor asked if this is the simplest form of evaporator technology as opposed to running the evaporator under pressure? Mr. Johnston answered that the evaporator is ran under pressure and that the leachate is delivered to the evaporator at 35psi. Mr. Johnston noted that he will go over this more during the presentation.

Mr. Cannon asked if the water vapor coming from the discharge stacks has any kind of odor to it? Mr. Johnston answered that sometimes there can be a slight mineral odor but that it is nontoxic and that you can stand right under the plume with the wind blowing the vapor in your direction and have no issues. Mr. Pryor asked if the vapor is scrubbed in any way? Mr. Johnston answered, no and explained that

before the gas stream exits the stacks that the gas goes through a vein separator in the stacks which eliminates any type of unwanted discharge. Mr. Pryor asked if an Air Permit is still required? Mr. Johnston answered, yes and explained that only a minor modification to the current Air Permit is required and that they assist in this process. Mr. Johnston noted that their Evaporator Product Engineer will go to the Air Board meetings with the PCFA to help with the process. Mr. Pryor asked if there is a testing regimen with the modification to the air Permit? Mr. Johnston answered that testing is usually only required once a year and that some states do not require any testing at all. Mr. Pryor asked if any of the evaporators ever fail the tests? Mr. Johnston answered, no.

Mr. Johnston explained that they testing requirements for an evaporator is similar to the testing requirements of an enclosed flare and that most states require testing once a year. Mr. Williams stated our current Air Permit for our flares that we have now requires testing once a year.

Mr. Johnston began the PowerPoint presentation.



## CB&I / LFG Specialties Leachate Evaporators

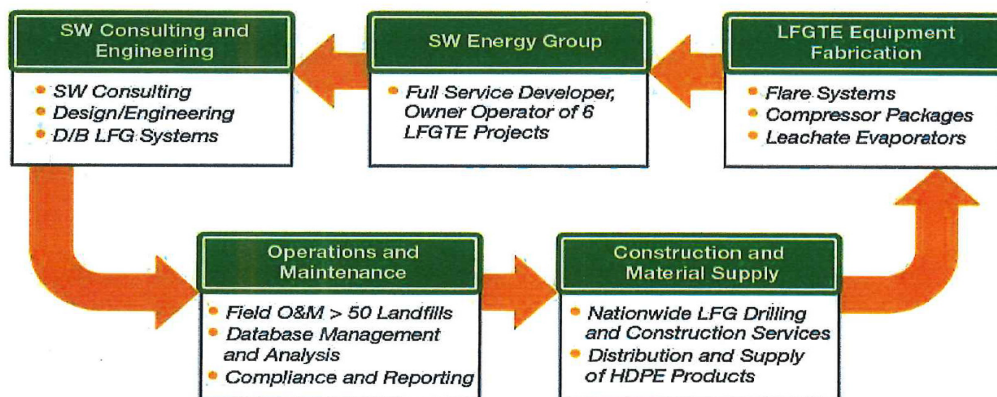
Presented by: Bob Johnston  
Business Development Manager





Mr. Johnston presented slide number 2.

- Vertically integrated service provider for the landfill gas market



Mr. Johnston presented slide number 3. Mr. Johnston noted that on slide 3 there total projects completed to date are now 23 as opposed to 21.



- Landfill Gas Industry leader since 1987
  - Headquartered in Findlay, OH
  - 55 employees
  - 40,000 sq. ft. fabrication and assembly shop
  - UL Certified Control Panel Shop
  - After market parts department-\$1MM inventory
  - Regional Service Department
    - 5 factory trained service technicians
    - Findlay, Pittsburgh, Orlando, San Antonio
    - 4 process control engineers
- Primary Product Lines
  - Landfill Gas Flares-utility, enclosed & rentals
    - Over 900 projects completed worldwide
  - Petroleum Flares
    - Over 140 flares operating in the Eagle Ford
  - Gas conditioning and compression skids for landfill gas to energy projects
    - 57 projects completed
  - Leachate Evaporators (E-Vap®)
    - 21 projects completed



Mr. Johnston presented slide number 4.



## Challenges of Leachate Management-Industry Wide Concerns

- #1 Operational cost
- Special waste impacts
- Increased / stored volume due to recirculation/Bioreactor
  - Higher concentrations of constituents
- Truck and off-site Disposal (T&D)
  - Increased risk by hauling off-site
  - Uncertainty in long term costs
- POTW / Municipal WWTP
  - At or near capacity
  - Stringent constituent limits
  - UV treatment
  - Uncertainty in long term commitment and cost

A World of Solutions

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Mr. Johnston presented slide number 5. Mr. Johnston noted that on slide 5 the number of direct discharge designed evaporators installed to date is 9 as opposed to 7.



## Evaporator Overview

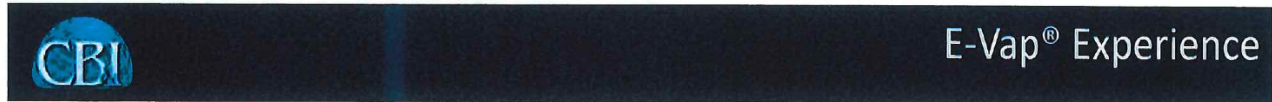
- Three generations of patented technology:
  - 1992: Original design
    - Evaporator with enclosed flare
    - ~2,400 scfm for 30,000 gpd
    - 14 installations
  - 2004: Direct discharge design
    - Improved combustion efficiency
    - Direct discharge of vapor plume
    - ~500 scfm for 30,000 gpd
    - 7 installations
  - 2015: Waste heat design
    - Utilization of waste heat
    - Currently under development



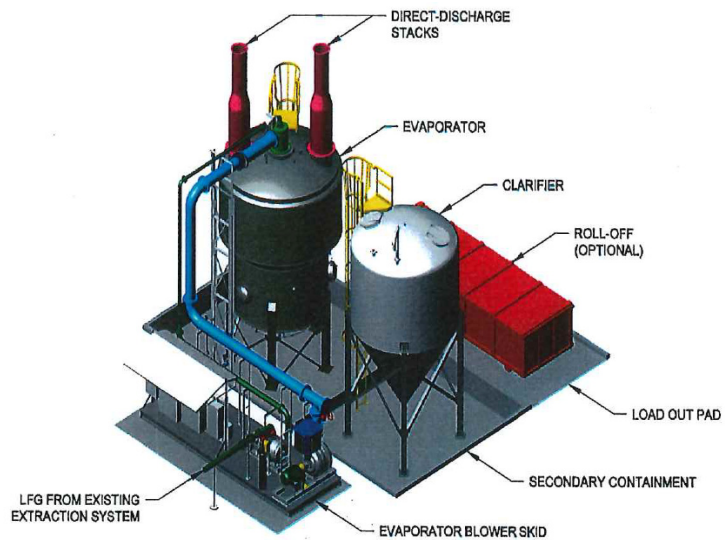
A World of Solutions

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Mr. Johnston presented the next slide. Mr. Johnston noted that from the Waters, MI installation in 2007 and down are projects completed with the new direct discharge design that is pictured on the slide. Mr. Johnston also noted that a 40,000 gallon evaporator will have 3 direct discharge stacks instead of 2. Mr. Johnston stated that they have completed a few international installations and that the evaporator that was installed in Venezuela is ran off of natural gas.



Domestic Sites			GPD
Hunt Road	MA	1997	10,000
Olympic View	WA	2000	20,000
Okeechobee	FL	1998	20,000
Liberty	IN	1998	10,000
Earthmovers	IN	1998	10,000
Southern Allegheny	PA	1999	13,000
Okeechobee	FL	2003	20,000
Sauk Trail	MI	1999	20,000
Forest Lawn	MI	1999	20,000
Greenridge	PA	1999	30,000
Cherokee	OH	1998	10,000
Brunner	PA	2004	20,000
Waters	MI	2007	30,000
Northern Oaks	MI	2008	30,000
Glens	MI	2009	30,000
Sampson County	NC	2011	30,000
Forest Lawn	MI	2012	30,000
Richland County	SC	2016	40,000
Cedar Hill	AL	2017	30,000



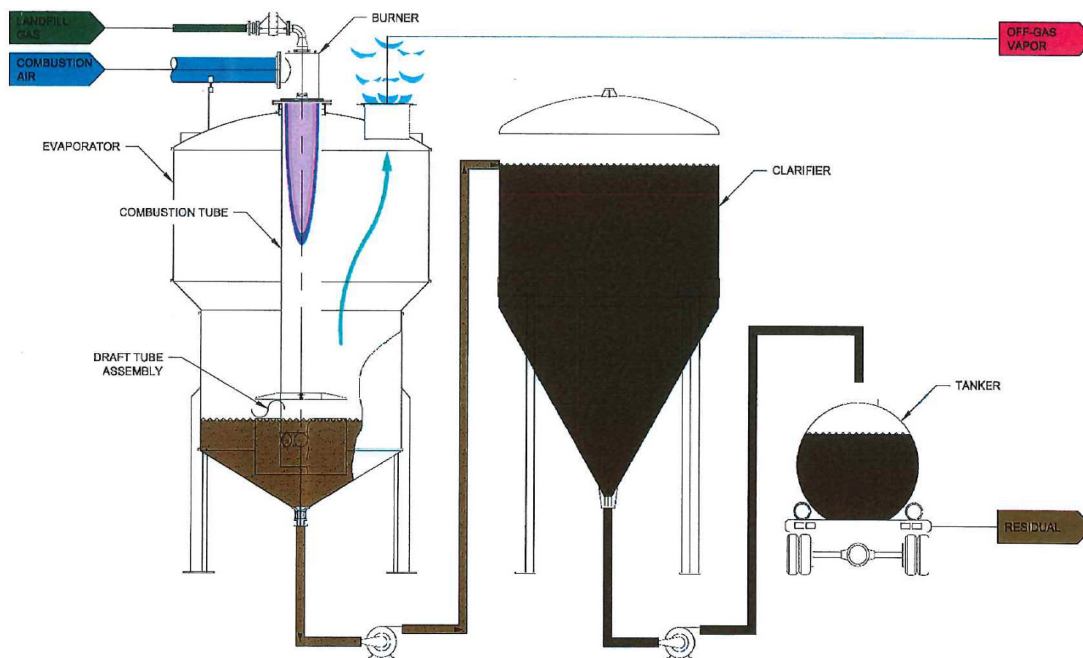
International Sites		GPD
Redvale, New Zealand	1999	20,000
Sao Paulo, Brazil	2001	5,000
Beijing, China	2004	10,000
Caracas, Venezuela	2005	30,000

Mr. Pryor asked if the waste is readily dewaterable and if it would be able to handle a 20% increase? Mr. Johnston answered that it could handle that and explained that the higher the solid waste contents are the less efficient the evaporator is. Mr. Pryor stated that not everything is dewaterable. Mr. Johnston asked Mr. Pryor if he was referring to the residual waste coming out of the evaporator at the end of the evaporation process? Mr. Pryor answered, yes. Mr. Johnston stated that some facilities will take the residual waste to a thickening plant or add saw dust to it to thicken it if it is too thin.



Mr. Johnston presented slide number 7.

 Evaporator Overview



Mr. Pryor asked what some of the other facilities are doing with the water that is recovered and how do they use it? Mr. Johnston stated that there is no water discharged. Mr. Pryor asked if that means that the water is totally evaporated? Mr. Johnston answered, yes.

Mr. Allen asked if the discharge coming out of the stacks is steam? Mr. Johnston answered, no and stated that the discharge is vapor.

Mr. Allen asked if there is any particulate matter in the vapor that is discharged? Mr. Johnston answered, no.

Mr. Mach asked what the volume of vapor going out of the stack is for every gallon of leachate being boiled off? Mr. Johnston answered that 44,000 gallons of leachate will be going in for evaporation and that 10% or about 4,000 gallons will be residual waste and 40,000 gallons or 90% will be going out as vapor.

Mr. Mach asked if the plume is visible? Mr. Johnston answered yes and that they will be able to get a better visual as to what the plume looks like in the video that he will show after the presentation.

Mr. Pasquini asked what the difference of definition is between steam and vapor? Mr. Johnston answered that steam occurs at 212° and vapor occurs at 180°. Mr. Pasquini asked if he understands correctly that steam could still have water particulates in it and that vapor would have no water particulates? Mr. Johnston answered, yes.

Mr. Johnston stated that the evaporator tank is made of 316L stainless steel. Mr. Johnston stated that since our leachate has a higher TDS level that the evaporator tank may need to be replaced after 5 years and that this is much cheaper than having the evaporator tank made of a higher grade metal. Mr. Johnston also stated that they have hired a company that tests the leachate and will give an estimate on how long the evaporator tank will last.

Mr. Williams asked what temperature the material in the clarifier is? Mr. Johnston answered that the material in the clarifier would be approximately 100°. Mr. Williams asked if the material in the clarifier would freeze during the winter? Mr. Johnston stated that the evaporator could be exposed or enclosed in a building. Mr. Johnston stated that having the evaporator enclosed in a building helps to keep the heat in and also improves the process of the evaporator. He also stated that if the evaporator is left exposed that everything would need to be heat traced to keep it from freezing.

Mr. Cannon stated that we already have a building that we may be able to use for the evaporator.

Mr. Johnston presented slide number 8.



- Estimated emissions of criteria pollutants and HAPs/toxics
  - NMOC < 20 PPMV, as hexane, or > 98% destruction
  - CO < 0.30 lbs/MMBTU fired
  - NO<sub>x</sub> < 0.05 lbs/MMBTU fired
  - Particulate < 20 tons per year
- Modeled ambient air impacts at the property boundary for:
  - chromium,
  - arsenic, and
  - ammonia.
- Source was demonstrated to be in compliance and was then permitted as a **“minor source”** under the control of CB&I.
- Air Permit was issued within 60 days.
- Leachate recirculation permit—TCLP performed on residuals
- Building Permit

Mr. Johnston presented slide number 9.

**CBI** Project Schedule

- Air Permit Issued December 20, 2011
- Equipment Delivery 6 Months
- Site Construction 3 months
- Start-up and commissioning 1 month
- Commercial Operation Date September 15, 2012
- 10 months start to finish

A World of Solutions 9

Mr. Johnston stated that the evaporator needs to be in a dual containment center. He noted that the prices in the budgetary proposal included the installation of a building to house the evaporator, all the concrete work for the dual containment and all the load out pads.

Mr. Cannon asked Mr. Johnston if they looked specifically at our site or the building we have on-site? Mr. Johnston answered, no and stated that this is just a general price.

Mr. Johnston presented slide number 10. He stated that this is the site they built in North Carolina. Mr. Johnston also stated that at the very far left you can see the candlestick flare that they installed. Mr. Johnston stated that it is great if their flares are used with the evaporators because they would easily be able to communicate with each other.

**CBI** Site Excavation



A World of Solutions 10

Mr. Johnston presented slide number 11. Mr. Johnston stated that this slide shows the evaporator and clarifier being set.

**CBI** Setting the Equipment



A World of Solutions 11

Mr. Johnston presented slide number 12. Mr. Johnston stated that this slide shows another picture of construction.

**CBI** Installation complete, no building



A World of Solutions 12

Mr. Johnston presented slide number 13. He noted that this slide shows an image of an evaporator enclosed in a building.



Mr. Johnston presented slide number 14.



- System Production
  - September 15, 2012 through
    - Processed 32,570 gpd of leachate
    - Discharged 3,192 gpd of residual (9.8%)
    - Evaporated 29,378 gpd of leachate
  - 95.2% on line time since start up
- Residual Management
  - Total solids in influent range from 1-3%, typically 1%
  - Daily samples taken in E-Vap vessel
  - Managed to <8% total solids by increasing blow down
  - Site utilizes a 3,300 gallon water truck to transport leachate
  - 7 tankers per week
- Anti-foaming agent added in evaporator vessel to keep from foaming.

Mr. Johnston explained that during the evaporation process leachate foams and due to that they put a custom made anti-foaming agent into the evaporator vessel to keep it from foaming. Mr. Johnston noted that the PCFA would be provided with the make-up of the anti-foaming agent so that we could get it from one of our own chemical suppliers.

Mr. Johnston presented slide number 15.




## Leachate Management Service Agreement

- 10 year term, with renewal options
  - Annual service fee and escalator
  - Ground Lease
- CB&I provides
  - Complete E-Vap<sup>®</sup> system and building
  - Facility operator, including on-call coverage
  - All consumables & materials
  - 10 year warranty on all repairs and maintenance
  - Guaranteed operating capacity (annual basis)
- Waste Industries provides
  - Leachate storage
  - Utilities (power and landfill gas)
  - Residual management
- Total cost of operations including power and residual management is \$0.055 to \$0.065 per gallon which resulted in a 20-25% cost savings.


Mr. Johnston stated that there are a few options for the purchase of the evaporator. He stated that the evaporator could be bought outright and operated on-site by our staff. He also stated that the evaporator could be leased for 10 years under their element safe project and that a flat monthly fee would be paid. Mr. Johnston noted that with the element safe project they guarantee 30-40 thousand gallons of leachate will be evaporated depending on the size of the evaporator. Mr. Johnston noted that it is more cost effective to buy the evaporator outright but he also noted that with the 10 year leasing option that all general maintenance and repairs are covered. Mr. Johnston also noted that there is a buyout option set in all of the contracts.

Mr. Johnston presented slide number 16.

 Questions?

- Control Your Destiny

Contact:  
Robert Johnston  
770-757-6329  
Robert.johnston@cbi.com



A World of Solutions 16

Mr. Johnston stated that the benefit to using an evaporator to remove leachate is that the cost per gallon disposed is more consistent. Freeholder Deputy Director Smith stated that the disposal cost would still fluctuate in our case due to energy costs because we have to buy gas instead of using landfill gas. Mr. Johnston stated that Freeholder Deputy Director Smith was correct.

Mr. Pryor asked Mr. Johnston if they have had issues with public acceptance regarding the plumes? Mr. Johnston answered and stated that there have been a few public acceptance issues and that they are typically solved once the test results are presented.

Mr. Johnston played a short video for the board.

Mr. Pryor asked what direct discharge means? Mr. Johnston answered that direct discharge means that the vapors are destroyed in enclosed flares.

Mr. Allen asked if there was a redundancy built in if one of the burners stops working? Mr. Johnson answered that there is only one burner even if there is more than one stack.

Mr. Williams asked if there are safety features built in, for example if the flame fails? Mr. Johnston answered, yes and stated that everything would shut down. Mr. Johnston stated that if there is ever an emergency shutdown the system would need to be restarted manually and cannot be restarted remotely.

Mr. Williams asked if the system could be set up to use both our on-site gas and subsidized gas? Mr. Johnston answered, yes and stated that the burner material may need to be configured differently. Mr. Allen asked if both gases could be used simultaneously? Mr. Johnston answered, yes and noted that the gases would be blended together.

Mr. Williams asked what the next step is that the PCFA would need to take to move forward other than the natural gas price?

Mr. Allen asked if we already know that we do not have enough landfill gas? Mr. Johnston answered, yes. Mr. Campman noted that the landfill gas levels will probably continue to decline.

Mr. Johnston stated that they would be running a new leachate test. Mr. Williams asked if this would be different than the current testing that is being done? Mr. Johnston answered that they just want to make sure that our lab is testing for the same things that they would need test results for.

Mr. Pryor asked if there is a guarantee offered on the evaporator system? Mr. Johnston stated that there is a one year guarantee. Mr. Pryor asked if there is a performance guarantee? Mr. Johnston answered, yes and stated that this was shown on one of the previous slides (slide number 15).

Mr. Cannon stated to be clear that the price per gallon will depend on the price of the natural gas.

Mr. Williams stated that Elizabethtown Gas is looking into three different options for us. He stated that they are getting us pricing for 100% usage of natural gas, 75% usage of natural gas and 50% usage of natural gas. Mr. Williams also stated that Elizabethtown Gas would need to install a pipeline in the length of approximately one mile. Mr. Williams stated that we are also looking into if we have to pay for the installation of the pipeline.

Mr. Cannon asked Mr. Johnston if they could try to get us a harder number regarding the per gallon disposal cost using the evaporator and if they could schedule an on-site visit to look at the building we have on site. Mr. Cannon stated that we absolutely will not be paying for the installation of the pipeline.

Mr. Williams stated that he will send Mr. Johnston our most recent testing data.

Mr. Cannon stated that representatives from Covanta left the meeting and that the board would not be speaking with them now as previously planned. Mr. Tipton stated that he stepped out of the meeting and spoke to the representatives from Covanta and that he would discuss what was said during Executive Session.

## FACILITIES/RECYCLING

Mr. Williams stated that there are no issues with the leachate treatment plant. Mr. Williams informed the board that starting in May we have been reducing our discharge and that so far the discharge has been reduced by 50%. Mr. Pryor asked how this was being done? Mr. Williams stated that we slowed the pumps down and increased the amount we haul off-site since the hauling rate is currently cheaper.

Mr. Williams stated that Agenda item A-5 has not come in yet. He noted that he has been having discussions with the Passaic Valley Sewage Commission and that they are working on finalizing some language within their disposal contract. Mr. Williams stated that they dropped their disposal fee from \$0.035 per gallon to \$0.025 per gallon but that he is still trying to see if we can get the fee lowered more. Mr. Williams noted that there is very strong language in the contract stating that we would need to bring all of our leachate there and that this would be a five year contract. Mr. Williams stated that our current contract goes until sometime in 2018 but that Passaic Valley is really to negotiate with us and give us a new contract.



Mr. Williams presented Agenda item A-6 to the board and stated that this is the Draft Contract Document for the Removal, Hauling, Delivery and Disposal of Un-Treated Leachate. Mr. Williams stated that this contract is up for renewal in October and that he would like to put this out for bid now in hopes to get a lower trucking cost.

Mr. Cannon asked if there is a minimum hauling requirement or if it is At-Will? Mr. Williams stated that there is no minimum hauling requirement and that there is also no cap either and Mr. Tipton agreed. Mr. Cannon asked if our current contract was set-up the same way? Mr. Williams answered, yes.

Mr. Williams asked if the board would authorize putting this contract out for bid?

Mr. Mach asked if any consideration has been given to running our own fleet of trucks with contracted drivers? Mr. Williams stated that we had looked into this years ago and that the cost of getting trucks, tankers and drivers with CDL licenses was astronomical. Mr. Pasquini stated that he works in the transportation field and that he highly recommends not running our own trucks. Mr. Cannon stated that he does not think that running our own fleet of trucks is prudent at this time.

Mr. Cannon asked if the board would authorize Mr. Williams putting this contract out for bid?

On a motion by **Mr. Pryor**, seconded by **Mr. Allen**, the board approved the advertisement of a contract for the removal, hauling, delivery and disposal of un-treated leachate generated from the Warren County District Landfill.

ROLL CALL:	Mr. Allen	-	Yes
	Mr. Pasquini	-	Yes
	Mr. Pryor	-	Yes
	Mr. Mach	-	Yes
	Mr. Cannon	-	Yes

Mr. Williams stated that there are no issues with Landfill Operations. Mr. Williams informed the board that Covanta had brought in just under 1,800 tons of By-Pass which equated to about 260 tons per day.

Mr. Williams stated that the Landfill Expansion Application is Administratively Complete and that there are no further updates at this time.

Mr. Williams stated that there are no issues with the H2S Removal System.

Mr. Williams stated that there are no changes regarding the Solar Panel Project, Agenda item A-7 the 2017 Waste Disposal Fee Schedule or the 2017 Waste Disposal Contract(s).

Mr. Williams stated that our HHW event was held on April 30, 2017 and that we had 329 vehicles come through the facility to dispose of their Household Hazardous Waste. Mr. Williams noted that the amount of vehicles that came in is up approximately 40-50 vehicles from each of the 2016 HHW events.

Mr. Pryor stated that people have been asking him about electronics recycling. He asked if we have any more information regarding electronics recycling? Mr. Williams stated that the only additional information we have is that the Salvation Army in Hackettstown can take electronics that are in working condition. Mr. Williams proposed putting the electronics recycling out for bid again in the summer and seeing if we get any response. Mr. Allen stated that he had heard that Hope had held an electronics recycling event and suggested contacting the Mayor of Hope to find out who they used as a vendor. Mr. Williams stated that Hope used the vendor that we used to use but that the vendor refuses to do a performance bond and no longer bids on our electronics recycling. Mr. Williams stated that he know that the state is working on changing the electronics recycling regulations but that he is unaware as to where

the state is in the process. Freeholder Deputy Director Smith confirmed that the Salvation Army in Hackettstown does accept working electronics and stated that he had just gone there yesterday.

Mr. Cannon stated that the representatives from the county did not know about the Salvations Army accepting working electronics. He noted that he was at the paper shredding event that took place on Saturday, May 20, 2017 and he noticed that it was not listed on the recycling guide that they were giving out at the event.

Mr. Cannon stated that the truck for the paper shredding was filled by 10am and that the county needed to bring in a second truck. Mr. Cannon stated that people will recycle and dispose of items properly if they are offered a way of how and where to do it. Freeholder Deputy Director Smith stated that it was his understanding that shredded paper is not recycled. Mr. Williams stated that this is correct. Freeholder Deputy Director Smith asked if shredded paper is not recyclable why we do not just send the paper be incinerated instead of shredding it? Mr. Cannon stated that most people bringing items to be shredded are bringing confidential documents and want to see them actually being shredded.

Mr. Williams notified the board that he will be on vacation the week of June 5, 2017.

Mr. Cannon addressed the correspondence regarding Covanta's Draft Solid Waste Facility Permit Renewal for Large-Scale Thermal Destruction. Mr. Cannon stated that we should look into whether or not we need to start doing additional testing due to some of the items Covanta may be bringing in under this permit.

#### GENERAL COUNSEL'S REPORT

To be discussed during Executive Session.

#### OTHER BUSINESS

None

#### CLOSING PUBLIC COMMENT

None

#### PRESS COMMENTS & QUESTIONS

None

#### EXECUTIVE SESSION

Executive Session was entered at 11:21 am to discuss litigation and contract negotiations.

## **RESOLUTION**

**R-05-07-17**

### **AUTHORIZING EXECUTIVE SESSION**

WHEREAS, the Authority has a need to discuss the following matter(s) in Executive Session:

Litigation and Contract Negotiations.

It is not possible, at this time, for the Authority to determine when and under what circumstances the above-referenced item(s), which are to be discussed in Executive Session, can be publicly disclosed;

NOW, THEREFORE, Pursuant to N.J.S.A. 10:4-1 et. seq., BE IT RESOLVED by the Pollution Control Financing Authority of Warren County that the matter(s) as noted above will be discussed in Executive Session.

Moved By: Mr. Mach

Seconded By: Mr. Allen

ROLL CALL:	Mr. Allen	-	Yes
	Mr. Pasquini	-	Yes
	Mr. Pryor	-	Yes
	Mr. Mach	-	Yes
	Mr. Cannon	-	Yes

I hereby certify the above to be a true copy of a resolution adopted by the Pollution Control Financing Authority of Warren County on the date above mentioned.

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Recording Secretary  
Crystal Gild

Dated: 05/22/2017

**Mr. Pryor** made a motion to come out of Executive Session, seconded by **Mr. Allen**.

ROLL CALL:	Mr. Allen	-	Yes
	Mr. Pasquini	-	Absent
	Mr. Pryor	-	Yes
	Mr. Mach	-	Yes
	Mr. Cannon	-	Yes

Regular session resumed at 12:07 pm.

Mr. Cannon stated that we are back in public session.

Mr. Cannon stated that during Executive Session the board designated himself and Mr. Williams to negotiate a proposed settlement with Covanta as to contract issues.

Mr. Williams reminded the board to sign the Affidavit for the Annual Audit before leaving today.

ADJOURNMENT

With no other business to discuss, **Mr. Allen** motioned to Adjourn, seconded by **Mr. Pryor**, at 12:08 pm.

ROLL CALL:	Mr. Allen	-	Yes
	Mr. Pasquini	-	Absent
	Mr. Pryor	-	Yes
	Mr. Mach	-	Yes
	Mr. Cannon	-	Yes

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Respectfully submitted by:  
Crystal Gild  
Recording Secretary

Approved: 06/26/2017