ONYX ENVIRONMENTAL SERVICES

ONYX

September 10, 2003

Illinois Environmental Protection Agency
Bureau of Land, Permit Section
1021 N. Grand Ave. East
Springfield, IL 62794-9276

RE: Onyx Environmental Services (OES)
Comments on the Draft RCRA Part B Permit 29R

To Whom It May Concern,

Onyx Environmental Services (OES), a leader in the hazardous waste service industry, is pleased to present comments on the Illinois EPA's draft RCRA Part B Permit 29R. OES's comments are presented in the attachment to this letter. OES has identified the section of the draft permit and the corresponding comment associated with that section.

OES did not comment on spelling errors that should be corrected in the final permit. OES did however have numerous comments on both permits related to specific regulations or site activities that needed clarification.

Upon review of these comments, should the Agency have any questions or a need for additional information, please contact Dennis Warchol at (618) 271-2804 or via e-mail at dwarchol@onyxes.com.

Sincerely,
Onyx Environmental Services

Doug Harris
General Manager

Enclosure

#7 Mobile Avenue - Sauget, Illinois 62201 - Tel.: 618 271 2804 - Fax: 618 271 2128

Exhibit B

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
RCRA PART B PERMIT 29R COMMENTS

Fact Sheet

Page 1, Section II.A.

Comment: Need to add "gas cylinder" to the list of waste that is handled on site.

Page 3, Section III.2.

Comment: The trailer storage pad is constructed, but is currently used for 90-day generated waste storage.

Page 4, Section IV.C.

Comment: The NPDES permit that the facility holds is an individual Storm water permit.

Part B Permit

Page I-1, Section A, Paragraph 1

Comment: Add "gases" to the list of waste types that are acceptable at the facility.

Page I-1, Section A, Paragraph 2

Comment: Needs to be re-written as: The facility currently includes container storage units, tank farms, a drum decant area, material processing areas, two fixed hearth incinerators, and a rotary kiln.

Page I-1, Section A, Paragraph 3

Comment: Needs to be re-written as: Proposed additionals to the site includes a trailer storage pad and added capacity to Tank Farm #3.

Page II-1, Section B.3.

Comment: Need to allow storage of waste that is identified in Section VI that is in the process of being rejected back to the generator or an alternate facility.

Page II-1, Section B.4.

Comment: Needs to be re-written as: The Permittee may temporarily store wastes awaiting incineration in the following areas: specialty feeder at Unit #2, compressed gas cylinder feed system at Unit #2, Hooded feeder at Unit #3, and Fume Hood Specialty Feed System at Unit #3. The containers and all non-RCRA containers must be returned to permitted storage within one shift (twelve hours).

Page II-2, Section C

Comment: Clarify that leaking drums can be overpacked in addition to transferring the material to another container or an overpack.

Page II-6, Section J.6.

Comment: Delete reference to 35 IAC 724.277(c) and replace with "modified DOT based on the primary hazard class" as defined in the Waste Analysis Plan.

Page II-6, Section K.7.

Comment: Modify sentence #2. Ash can be stored in the ash storage building, Building 7 and the 90-day storage pad.

Page II-7, Section K.9.

Comment: Delete #9 – this condition applies to a material processing building that was never built and as a result, removed from the current Part B Permit Application.

Page III-1, Section A.

Comment: Change "three tank farms" to "two tank farms" and "two bulk storage areas" to "bulk storage area." There are only two tank farms and one bulk storage area defined in the Part B Permit.

Page III-3, Section D.4.

Comment: Need to make some allowance for tankers that come in over a three day week-end, or in discrepancy and in the process of resolving or tankers that are being rejected and in the process of setting up transfer to another location.

Page III-4, Section F.2.c.

Comment: **Onyx is already internally inspecting tanks on a five-year basis. The schedule defined in the permit conflicts with the current schedule, as a result it needs to be deleted. Also, in the third sentence, replace "technical" with "technician."**

Page IV-1, Section A.4.

Comment: **Need clarification to the terms shock sensitive and air reactive Waste. Are those only wastes defined in Section VI or do they include other waste types?**

The last sentence needs to be clarified to state that "detectable amounts of dioxins and furans as defined in the Waste Analysis Plan, Dioxin Policy."

Page IV-3, Section B.2.e.ii.

Comment: **"Discoving" needs to be changed to "Discovery."**

Page IV-3, Section B.2.e.iii.

Comment: **"Personnel" is misspelled.**

Page IV-3, Section B.2.f.

Comment: **"Operation" needs to be changed to "operational."**

Page IV-4, Section B.2.i.

Comment: **Need to add the word permit after RCRA. Should read "RCRA Permit."**

Page IV. a-I.B.2.

Comment: **The HCl limit defined is the new MACT limit - not the current RCRA Part B limit. Need to reference current RCRA limit.**

Page IV.a-4, Section E. Table

Comment: **SDA high exit temperature should be changed to a 1-minute average instead of a 1-hour average. Delete Carbon Injection Unit. This unit is only at Unit 4**

Page IV.a-6, Section G

Comment: **Need a period after Illinois EPA.**

Page IV.a.7, Section H.2 and H.3.

Comment: Replace references to Section "V" with "IV."

Page IV.a.7, Section J.

Comment: First paragraph doesn't apply to this Closure Section.

Page IV.b-1, Section B.2.

Comment: The HCl limit defined is the new MACT limit, not the current RCRA Part B limit. Need to reference current limit.

Page IV.b-4.Section E.

Comment: SDA high exit temperature should be changed from a 1-hour average to a 1-minute average.

Page IV.b-4, Section E. Note 1

Comment: Reference in second paragraph needs to be changed from IV.a.B.2. to IV.b.B.2.

Page IV.b.5.Section F. Table

Comment: The Parameter "Natural Gas": need to change Method to "Limiting Orifice," Monitoring Frequency to "Continuously" and Calibrating Frequency to "Annually."

Page IV.b.-8. Section H.3.

Comment: Reference defined should be changed from "V.b.D." to "IV.b.D."

Page V-1, #3, #4 & #5

Comment: This condition should be removed. These conditions apply to the material processing building that was in the original 1987 RCRA Part B Permit Application that was never constructed. This unit has been removed from the 1997 RCRA Part B Permit Application.

Page V-1, #6

Comment: The word "shal" is misspelled.

Page V-1, #7

Comment: This condition should be removed since all these units are now defined as storage areas.

Pages VIII – 1, #4

Comment: Replace the word "likely" to "closely."

Page X-1, Subpart CC

Comment: Subpart CC is addressed in both the Illinois EPA permit and the US EPA permit. Why is this? Who has authorization for these regulations? This section also addressed the use of level 1 controls for tanks. Onyx Environmental Services complies with level 2 controls since all of the tanks exceed the vapor pressure requirement for Level 1 controls.

Page X-1, Section B

Comment: Need to identify !variable! in the second paragraph.

Page X-1, Section B.3.

Comment: Need to identify !variable! In the second paragraph.

Page X-5, Section J.

Comment: Need to identify !variable below! In the first sentence.

Page XI-1, Corrective Action

Comment: Onyx Environmental Services has reviewed the correspondence associated with the original requirements for a soil sampling assessment of the facility and found that a soil sampling plan was submitted, approved, and implemented by the facility. The results were submitted to the US EPA, and subsequently received a letter from the US EPA questioning the validity of the results. Trade Waste Incineration (TWI) submitted a revised sampling and assessment work plan in December of 1992, but continued to research the concern of the US EPA about the validity of the data. It was found that the parent company of the laboratory conducting the analysis was being investigated for falsifying analytical results at another location and was totally unrelated to the laboratory that TWI used. As a result, our data was never in question, and the QA/QC data supports that determination. After subsequent conversations with the US EPA, the claim about our data being invalid was never supported by anything other than knowledge about an unrelated issue at another lab. As a result, the plan that TWI submitted was never approved and not implemented. Based on this and the written statement by the USEPA in the September 30, 1992 letter that "it would appear that the soil contamination is insignificant and may not pose a threat to

human health and the environment, Onyx Environmental Services does not intend to conduct any further soil sampling at the facility.

Standard Attachment B

Page B-1, Condition K.1

Comment: **Delete this condition. This requirement was completed as part of the 1988 Part B Permit.**

Page B-2. Incinerator Section

Comment: **Replace "Sections "Va, Vb and Vc" with "IV,IV,a, IV,b" and replace "K.1, K.4, K.6." with "J.1, J.4, and J.6." respectively.**

Page B-4, Standard Condition 53(a)

Comment: **Modify the "30 days after anniversary date" to match the current regulatory language defined in 35 IAC 724.242(b).**

Attachment D

Page D-1

Comment: **#6 – Replace "D." with "D.1."**
#7 – Replace "D." with "D.2."
#8 - Replace "D.4." with "D.5."
#9 - Replace "D.4." with "D.5."

Attachment E

Page E-1

Comment: **D001, D002 and D003. Delete the end of the sentence "but is not listed as a hazardous waste." Could be interpreted that D001, D002, and D003 is not acceptable as a listed hazardous waste (i.e. D001, P012).**

The following hazardous waste codes that are approved on Onyx's current Part A are not included in the list of approved codes. They are: K169, K170, K171, K172, K174, K175, P006, U006, U033 and U408.

The list of non-hazardous waste and the corresponding note is confusing. Onyx Environmental Services is approved via State Permit No. 1983-10-OP to accept non-hazardous waste and store in either permitted storage or the North and South ash storage buildings. The conditions referenced I(B)(2) or II(B)(2) are for construction permitting and waste storage.

Need to clarify that this list is not inclusive and that non-hazardous waste can be stored in either permitted storage or the North and South Ash Storage Buildings.

VEOLIA
ENVIRONMENTAL SERVICES

TECHNICAL SOLUTIONS
NORTH AMERICA

September 12, 2008

Mary Riegle, Permit Writer
Illinois Environmental Protection Agency
Bureau of Land, Permit Section
1021 North Grand Avenue East
Springfield, IL 62794-9276

RE: Veolia ES Technical Solutions, L.L.C. Sauget, IL
Comments on the Draft RCRA Part B Permit #29R

Dear Ms. Riegle,

Veolia ES Technical Solutions, L.L.C., a leader in the hazardous waste service industry, is pleased to present comments on the Illinois EPA's draft RCRA Part B Permit 29R. Veolia comments are presented in the attachment to this letter. Veolia has identified the section of the draft permit and the corresponding comment associated with that section.

Due to the extent of changes from the 2003 to the 2008 draft permit, specifically all the additional requirements for mercury analysis, record keeping and feed rates, Veolia is requesting a meeting to obtain clarification and discuss these changes. Veolia feels that many of these additional conditions are overly onerous, appear punitive, have no regulatory or safety basis and are not consistent with the requirements of the other Region 5 hazardous waste incinerators permits.

Veolia ES Technical Solutions, L.L.C.
#7 Mobile Ave, Sauget, IL 62201
tel: 618 271 2804 - fax: 618 271 2128
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Exhibit C

Upon review of these comments, should the Agency have any questions or a need for additional information, please contact me or Dennis Warchol at (618) 271-2804 or via e-mail at Doug.Harris@veoliaes.com or Dennis.Warchol@veoliaes.com.

Sincerely,
Veolia ES Technical Solutions

Doug Harris
General Manager

Enclosure

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
RCRA PART B PERMIT 29R COMMENTS

Page II-1 Section B.3. This change has already been requested.

Draft Permit reads:

The Permittee is prohibited from storing waste that is identified in Section VI of this permit in the permitted units identified in Condition II.B.2.

Issue:

Customers occasionally send waste that is identified in Section VI and not acceptable at the facility. The facility makes arrangements to reject this waste back to the generator or an alternate facility. However, in the interim, the waste will be stored in permitted storage according to its compatibility until the waste can be transported back off-site.

Resolution:

The Permittee is prohibited from storing waste that is identified in Section VI of this permit in the permitted units identified in Condition II.B.2. except as needed in cases when waste must be rejected to the generator or an alternate facility.

Page II-5 and 6 Section J. DOT change has already been requested.

Draft Permit reads:

J.1. "Incompatible Waste" means waste that meets the definition of "incompatible waste" in 35 Ill. Adm. Code 720.110.

J.4. The permittee shall not store containers holding a hazardous waste that is with any incompatible waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments unless separated from the other material or protected from them by means of a dike, berm, well, or other devices.

J.5. The permittee shall not place containers of incompatible waste in the same storage bay.

J.6. Incompatible wastes in the staging/receiving area may be separated according to DOT classifications. In all other areas of the facility incompatible wastes must be separated in accordance with 35 IAC 724.277(c).

Issue:

The Agency has changed the method of container storage from the modified DOT compatibility procedure that is currently being utilized to the IEPA definition of incompatible waste. The facility currently stores waste by the modified DOT procedure defined in the RCRA Part B permit that expired on May 5, 1998. The application for the renewal of this permit specified that this procedure would be continued to be used. The draft RCRA Part B permit that was issues for comments in June, 2003 defined the modified DOT compatibility storage as the method to be used to store waste in container storage buildings. There were no comments during the public notice period on this issue and the facility has had no incidents in storage that would require a change to this requirement. As a result, the question is what rational the Agency used for changing this requirement. It is also Veolia's understanding that other TSDF's in Illinois store according to the DOT hazard class requirements.

The compatibility method defined in Section J.6. of the draft permit is 35 IAC 724.277(c). This regulatory citation merely states that waste that is incompatible must be separated by a dike, berm, wall or other device. The definition of incompatible is defined in 35 IAC 720.110, with examples of potentially incompatible waste defined in Appendix V of 35 IAC 724, Veolia's modified DOT compatibility storage requirements were developed based on the examples of Appendix V. If the current storage compatibility requirements are modified to a different requirement, the facility would first need to have the exact compatibility requirements defined (Appendix V gives examples of potentially incompatible waste) and have a compliance schedule to completely modify the storage of waste on-site.

Resolution:

Change this permit condition back to the modified DOT requirement for storage of containers. The current compatibility storage procedure has been utilized at the facility for over 20 years without incident. The highly trained Veolia work force has been trained on these procedures and have been implementing them for over 20 years. Veolia is concerned that changing these procedures without resulting in any benefit could lead to more mistakes and errors in trying to comply. This procedure meets the requirements of the definition of incompatible waste storage including the

current use of the bucket test that ensures that stored waste in the same bays are not incompatible.

Page II-6 Section K.7 Change has already been requested.

Draft Permit reads:

Incinerator ash generated at the facility shall not be stored for more than 90 days. The Permittee may only store the on site generated incinerator ash in the ash storage buildings or the 90-day storage pad.

Issue:

The facility can also store ash in the defined permitted storage areas defined in this section. If incinerator ash exceeds 90 days on-site, Veolia can put this material in permitted storage.

Resolution:

Incinerator ash generated at the facility shall not be stored for more than 90 days. The Permittee may only store the on site generated incinerator that is less than 90 days in the ash storage building or 90 day storage pad. Incinerator ash must be placed in RCRA permitted storage if it exceeds 90-day storage.

Page II-7 Section K.9 Change has already been requested.

Draft Permit reads:

A maximum of 4 - 55 gallon containers may be staged for less than 24 hours in the area near the drum conveyor in the materials processing building

Issue:

This condition applies to a material processing building that was never built.

Resolution:

Delete K.9. in its entirety.

Page II-7 Section K.10

Draft Permit reads:

The row of drums stored next to the berm separating incompatible wastes shall only be stacked one high.

Issue:

Current stacking practices would prevent uncontrolled conditions in an event where the two different classes would be commingled. Rows of drums stored next to wastes of a different DOT class are stacked only with Class 9, non-reg, non-haz or Class 6 poisons; however Class 6 Zone A poisons are never stacked. Class 4 & 5 wastes are double stacked with the same type of DOT class waste stacked next to them. There is no stacking of Class 3, Class 6 Zone A or Class 8 wastes.

Resolution:

Remove Section K.10 entirely.

Page III-3 Section D.4. Change has been requested before.

Draft Permit reads:

Bulk delivery trucks are permitted to remain in the truck staging/parking area for a period up to 24 hours for sampling/analysis purposes before the waste must be shipped off-site or moved to a permitted storage area.

Issue:

Need to make an allowance for tankers that come in over a three-day holiday weekend, that are in the discrepancy resolution process, or in the process of rejection to another facility. In some instances, the tanker could sit on-site for several days in transportation while the tanker is being rejected or in the process of trying to resolve a discrepancy with the generator of the waste. It can take several days for the generator to respond and resolve the discrepancy. The trucks will be staged in the truck parking area and are inspected daily during the discrepancy resolution or rejection process. As an alternative, these tankers could be stored on the 90-day storage pad that is a concrete containment area that is capable of holding the contents of an entire tanker. Veolia is always concerned with trying to put time restrictions on discrepancy resolution or analysis because this can lead to errors and mistakes that could be prevented.

Resolution:

Bulk delivery trucks are permitted to remain in the truck staging/parking area or 90-day storage area for sampling/analysis purposes, in cases when waste must be rejected to an alternate facility or in the discrepancy resolution process. These areas will be inspected daily to ensure the tankers are secured.

Page III-4 Section 2.b

Draft Permit reads:

A hydrostatic leak test or other integrity assessment as approved by the Illinois EPA shall be conducted annually on ancillary equipment which cannot be visually inspected daily. The hydrostatic leak test or other integrity assessment may be conducted by the permittee's personnel that have been trained on the applicable testing procedures.

Resolution:

Provide clarification on what equipment is being referred to and methods or procedures required for "hydrostatic leak test." The facility has no underground piping as a result all piping and ancillary equipment can be visually inspected.

Page IV-1 Section A.4. Requested this change before.

Draft Permit reads:

The Permittee shall not incinerate source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, 42 U.S.C. 2011 et. seq. or radioactive material discharged in accordance with Ill. Rev. Stat. ch. 111 1/2, Sec. 230.1 et. seq., certain shock sensitive or air reactive wastes, wastes containing greater than 50 ppm PCBs, asbestos wastes, waste streams designated F020, F021, F022, F023, F026, F027, or F028, or any waste listed in Section VI of this permit. The permittee shall not accept wastes with detectable amounts of dioxins or furans, as defined in the waste analysis plan, dioxin policy

Resolution:

Clarification that "certain shock sensitive or air reactive wastes" are those waste prohibited in Section VI of this permit.

Page IV-2 Section A.9.

Draft Permit reads:

"Mercury Annual Feed Rate Limit. The Permittee shall not feed more than a total of 3.63 kilograms (kg) of mercury per year to any combination of the three incinerator units. The Permittee shall not feed mercury or mercury-containing materials, including hazardous waste, solid waste, fuels, and any other feed streams into the incinerators at a rate that will result in an exceedance of the mercury annual feed rate set forth in this paragraph. For purposes of the mercury annual feed rate limit, the first year shall begin on the effective date of this permit and each year thereafter shall begin on the anniversary of the effective date of the permit."

Issues:

1. **Demonstrated removal efficiencies for each of the incineration units were not taken into consideration in developing this mercury annual feed rate limit. The facility completed metals testing on all three incinerators in August, 2008 that included mercury testing. Test reports along with SRE data will be submitted to IEPA and USEPA to document compliance with the Regulations and define a annual feed rate limit for mercury based on these testing results.**

2. **Veolia submitted a revised Human Health Risk Assessment to USEPA in November, 2005. The results of this assessment demonstrated no risk to human health and the environment based on the current Incinerator MACT emission limit for Mercury. Veolia, as of this writing have received no comments from the Agency on this report.**

3. **This defined feedrate limit along with the requirements for calculating mercury non-detected sample analysis defined in this permit would essentially make this facility non-viable.**

Resolution:

Incorporate the revised annual feed rate limit for mercury for the incinerators based on the August, 2008 test results and the revised Human Health Rick Assessments results submitted by Veolia in November, 2005.

Pages IV-2 – IV-5 Section A.10. Special Mercury Procedures

General Statement:

The "Special Mercury Procedures" defined in Section IV of the Draft Part B are overly onerous, appear punitive and have no regulatory or safety basis. These procedures are also not consistent with the requirements for mercury analysis for the other hazardous waste incinerators in Region 5. A review of the Heritage – WTI RCRA Part B Permit and the Ross RCRA Part B Permit in regards to these requirements merely state that the facility's are to follow the procedures detailed in their Waste Analysis Plan. The requirements in their WAP are far less onerous than those defined in the Veolia's draft RCRA Part B Permit.

Page IV-2 Section A.10.(i)

Draft Permit reads:

"Special Mercury Procedures. The Permittee shall implement the following special mercury procedures beginning on the effective date of this permit:

Pre-acceptance screening procedure. The Permittee shall screen all waste for mercury prior to acceptance for incineration at the facility. The Permittee shall obtain, prior to the shipment of waste to the facility, a representative sample of the waste for mercury analysis by the Permittee using appropriate quality assurance/quality control procedures and an appropriate test method that are consistent with the "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846). The Permittee shall follow this pre-acceptance screening sampling and analysis procedure at least twice a year for each waste stream using appropriate quality assurance/quality control procedures and an appropriate test method that are consistent with SW-846. If the sampling analysis indicates that the concentration of mercury in the waste is such that the mercury annual feed rate limit in condition IV(A)(9) would be exceeded, the Permittee shall not accept such waste for incineration at the facility."

Issues:

1. **Samples are submitted for many wastes that simply do not contain mercury. The generators waste profile sheet and accompanying MSDS (if the waste is a off-spec product) will determine if the waste is suspect for mercury. Veolia has a procedure in place that models the PCB Policy in the Waste Analysis Plan that defines the criteria for suspect. If a waste is not a mercury "suspect" waste based on a review of the waste profile sheet and/or MSDS, mercury analysis should be deferred. If the waste requires mercury analysis, the analysis will be completed during the acceptance procedure when the waste is on-site.**

2. **Pre-acceptance analysis is performed on many wastes that will never actually be received. Requiring mercury analysis on wastes that may not be received ties up personnel and instrumentation resources which could be better utilized for analyzing wastes which are actually in the process of being received for incineration. Veolia bases its approval criteria on the waste profile sheet and/or MSDS and the mercury concentration that is defined by the generator. Veolia will not approve waste that are prohibited by the RCRA Part B Permit, the regulations or the defined mercury concentration would exceed our feed rate limits. If the waste is approved for acceptance and meets any element of our Mercury suspect criteria, the waste will be analyzed for mercury upon receipt of the waste on-site.**

3. **Performing pre-accepting screening sampling and analysis twice a year is over burdensome and provides no additional information for compliance with the regulations. Veolia currently recertifies it waste streams every five years or if the process generating the waste changes. Veolia has thousands of waste profiles approved from generators that are never received. Many of these profiles are lab packs or off-specification products that the exact chemical composition is known. If waste is shipped to the facility, Veolia will determine if the waste is "mercury suspect" based on our defined criteria. If the waste is suspect for mercury it will be analyzed for mercury concentration upon receipt during the acceptance.**

4. **There are instances when a waste is profiled prior to being generated. In these cases, it would be impossible to obtain samples for pre-acceptance analysis. Generators who have approved profiles in place but have not shipped the waste will not provide a sample every six months.**

5. **Veolia's lab currently performs the analyses required by the WAP on 50-60 profile re-certifications per month. There are more than 9,000 profiles that are currently active at the facility. Were pre-acceptance screening and analysis procedures, to be required for the thousands of active profiles twice per year, the workload for this activity alone would increase to 1,500 each month. The added costs associated with wages and the purchase of additional instrumentation would be substantial. In addition, if Flash point, PCBs and metals as a part of our recertification analysis for all waste streams, if would take a significant amount of extra analysis time.**

6. **Recertifying every 6 months would simply add no new information relevant to processing the waste. Profiles are already amended every five years, or as process generating the waste changes and if they become discrepant.**

7. **Veolia feels that many of these additional conditions are overly onerous, appear punitive, have no regulatory or safety basis and are not consistent with the requirements of the other Region 5 hazardous waste incinerator permits.**

Resolution:

Delete the requirement for sampling and analysis of waste streams every six months. Continue to follow the current WAP requirements of recertifying waste streams every five years that includes analysis for mercury. The facility will analyze all waste that meet our mercury suspect protocol before incineration.

Page IV-2 Section A.10.(ii)

Draft Permit reads:

Waste acceptance procedure. The Permittee shall conduct representative sampling of each shipment of waste for mercury within 24 hours of receipt and shall analyze such samples using appropriate quality assurance/quality control procedures and an appropriate test method that are consistent with SW-846. If the sampling analysis indicates that the concentration of mercury in the waste shipment is such that the mercury annual feed rate limit in condition IV(A)(9) would be exceeded, the Permittee shall not accept such waste for incineration at the facility.

Issues:

1. **Sampling of loads is not always possible within 24 hours. If waste show up before or after their schedule date due to transportation issues or weather related issues the facility may not be able to unload and sample and analyze the waste within 24 hours. The trailer will remain on-site in the truck staging area and be inspected daily until the load can be unloaded and sampled. Once it is unloaded, the waste will remain in permitted storage. Likewise, the waste will not be incinerated without all the proper analyses. Once the waste is sampled, it could take several days for mercury analysis based on the backlog of work or if problems occur from an analytical standpoint. The waste remains in secure permitted storage and will not be cleared for incineration until**

the analysis is complete. The 24 hour requirement has no regulatory or safety basis and would only create a tracking and workload burden on the facility. It would also create a culture were employees begin to operate unsafe and not paying attention to details causing analytical errors if unnecessary production goals were placed on them.

2. **Veolia feels that this condition is overly onerous, appears punitive, has no regulatory or safety basis and are not consistent with the requirements of the other Region 5 hazardous waste incinerator permits.**

Resolution:

Remove this entire section due to lack of regulatory or safety basis.

Page IV-2 Section A.10.(iii)

Draft Permit reads:

Batch sampling procedure. If waste accepted for incineration is batched, treated, blended, mixed, or otherwise altered from its shipped state, the Permittee shall sample and analyze such batched, treated, blended, mixed, or otherwise altered waste for mercury prior to incineration using appropriate quality assurance/quality control procedures and an appropriate test method that are consistent with SW-846. If the sampling analysis indicates that the concentration of mercury in the waste is such that the total annual feed rate limit for mercury in condition IV(A)(9) would be exceeded, the Permittee shall not incinerate such waste at the facility.

Issues:

1. **If mercury analysis is performed at receipt it should not be necessary to re-analyze after batching has been performed. This will eliminate useless sampling and analysis. Following the requirements of this draft permit, waste received for processing as a decant or a consolidation would be analyzed no less than 3 times between the time the load arrives and the time it is incinerated. Also, it is more accurate to analyze the most concentrated waste (at receipt), than mathematically calculate the bended material. This avoids the issue of lower concentrations being found by analyzing blended diluted samples.**

2. **Operations would be unable to feed from storage tanks and bulk pits while waiting for mercury analysis to be completed.**

3. Veolia feels that this additional condition is overly onerous, appears punitive, have no regulatory or safety basis are consistent with the requirements of the other Region 5 hazardous waste incinerator permits.

Resolution:

All waste will be analyzed for mercury prior to incineration. Waste that meet the mercury suspect criteria would be sampled and analyzed before blending or consolidating. The blended, consolidated mixture would be calculated, using the results from the individual analysis and be based on volumes and mercury concentrations. This approach is more conservative and accurate then mixing then sampling and possible diluting the results due this activity.

Page IV-3 Section A.10.(iv)

Draft Permit reads:

Fuel procedure. The Permittee shall document the concentration of mercury in any fuel, including natural gas, used oil, diesel, and alternative fuels, but not including hazardous waste, fed into the incinerators by either (1) obtaining analytical results from each fuel supplier or (2) conducting representative sampling of each fuel supply and analyzing such samples using appropriate quality assurance/quality control procedures and appropriate test methods. The Permittee shall follow this procedure at least once per year for each fuel supply. If the sampling analysis indicates that the concentration of mercury in the fuel is such that the total annual feed rate limit for mercury in condition IV(A)(9) would be exceeded, the Permittee shall not feed such fuel to the incinerators.

Issue:

With the negligible amount of mercury in natural gas, obtaining this information twice a year doesn't provide additional useful information for the time spend obtaining and documenting the information.

Resolution:

Delete this requirement. USEPA Air and Land Division have agreed that this requirement is no longer required due to the extremely low concentration of mercury in natural gas. See attached August 1, 2008 USEPA letter.

Page IV-3 Section A.10.(v)

Draft Permit reads:

Special mercury procedure recordkeeping. The Permittee shall document compliance with the Special Mercury Procedures set forth in condition IV(A)(10). Such documentation shall include, but is not limited to, pre-acceptance waste screening determinations, waste acceptance determinations, sampling logs, analysis logs, sampling results, and quality assurance/quality control documentation. Permittee shall maintain such records for seven calendar years and make them available at all times for inspection by U.S. EPA, Illinois EPA, local agencies, or their duly authorized representatives.

Issue:

Veolia currently records and stores on-site all the information defined in this condition as it does for all waste streams. It appears that this condition is punitive in nature and would require the facility to incur additional recordkeeping and operational cost to comply with this requirement with no added benefits.

Resolution:

No change to the facility's record keeping procedures are necessary.

Page IV-3 Section A.10.(vi)

Draft Permit reads:

Determination of mercury concentration for mercury annual feed rate calculation. The Permittee shall use the concentration of mercury as set forth below in order to calculate the mass of mercury for each waste or fuel fed to each incinerator unit consistent with condition IV(A)(11):

(1) if waste is batch fed to an incinerator unit, the mercury concentration for annual feed-rate limit calculation shall be:

(a) the result of the batch sampling analysis required by condition (A)(10)(iv); or

(b) the estimated quantitation limit (EQL), defined as the lowest non-zero concentration of mercury in a 5-point linear calibration study multiplied by the appropriate extraction and dilution factors, if

mercury is not detected at or above the EQL in the batch sampling analysis required by condition IV(A)(10)(iii).

(2) if batch sampling is not required, the mercury concentration for annual feed-rate limit calculation shall be:

(a) the highest concentration of mercury detected at or above the EQL from the sampling analyses required for by conditions IV(A)(10)(i) and (ii), or condition IV(A)(10)(iv) for fuels; or

(b) the highest EQL from the sampling analyses required by conditions IV(A)(10)(i) and (ii), or condition IV(A)(10)(iv) for fuels, if mercury is not detected at or above the EQL in any of the sampling analyses required by conditions IV(A)(10)(i) and (ii), or condition IV(A)(10)(iv) for fuels, and there is acceptable knowledge that mercury could be present in the waste or fuel; or

(c) one-half of the highest EQL from the sampling analyses required by conditions IV(A)(10)(i) and (ii), or condition IV(A)(10)(iv) for fuels, if mercury is not detected at or above the EQL in either of the sampling analyses required by conditions IV(A)(10)(i) and (ii), or condition IV(A)(10)(iv) for fuels, and there is acceptable knowledge that that mercury is not present in the waste.

Issues:

1. **"EQL" is not a term familiar to the facility. Veolia assumes that EQL is equivalent to MDL (method detection limit).**

2. **Veolia feels that this additional condition is overly onerous, appears punitive, have no regulatory or safety basis, is not consistent with the requirements of the other Region 5 hazardous waste incinerators and could make the facility a non-viable operation.**

3. **There are many cases beyond the Exemptions given in the Draft, where mercury would not reasonably be expected to be in a waste. Using even half the highest EQL for these wastes as described above, would artificially inflate the total quantity of mercury fed to the units. Considering the drastically low feed limit in the draft permit, these sources which do not truly contain mercury should not be added to the total. The following example illustrates this:**

If the EQL of 0.1 PPM was used for the 2007 throughput of 74,500,000 lbs, taking ½ the EQL = 0.05 PPM.

74,500,000 lbs X 0.05 PPM/1,000,000 = 3.725 lbs Hg
3.725 lbs X 1 kg/2.2 lbs = 1.7 kg Hg
1.7 kg Hg versus 3.63 kg Hg (RCRA permit limit)
50% of Hg calculated by this method in feed coming from ½ EQL being used. This example demonstrates how the feed rate calculated by this method could grossly and artificially inflate the Hg feed rate. If following the procedure for a suspect waste, the EQL would be 0.1 ppm which would calculate out to 3.4 kg Hg. This is very near the proposed permitted limit of 3.63 kg. Again, a gross over estimation of what is actually being fed.

This second example details how the Hg feed is artificially inflated by non-batch analytical versus batch analytical:

Assume 55 gallon drum @ 1 ppm Hg
25,000 gallon tank @ 0 ppm Hg
EQL = 0.1 ppm
½ EQL = 0.05 ppm

Non-Batch Analytical

55 gallon X 8.34 lbs/gal X 1/1,000,000 = 0.0000459 lbs Hg
Calculated Hg concentration in tank: 55/25,055 X 1 ppm = 0.0022 ppm Hg

Batch Analytical

55 gal + 25,000 gal X 8.34lbs/gal X 0.05/1,000,000 = 0.01045 lbs Hg

Using the batch analytical calculation the Hg is inflated 23 times the non-batch analytical calculation.

Resolution:

Delete this entire section due to the flawed natural of this calculation. Incorporate Veolia's current method of analyzing the waste as received, then calculating the batch concentration based on actual volumes and concentrations of the waste. This is more accurate and will not bias the results due to dilution.

Page IV-5, Section A.10.(vi) paragraph following (6)

Draft Permit reads:

The Permittee shall review any container labels, material safety data sheets, drum inventories, packing lists, and any other relevant data or information provided by the generator to determine whether mercury is present in any waste listed above that may be exempt. Only those wastes listed above that the Permittee determines in writing contain no mercury based on such review are exempt from the Special Mercury Procedures set forth in conditions IV(A)(10)(i) through (vi). The Permittee's written determination of exemption from the Special Mercury Procedures shall describe the information reviewed and the basis for the determination that no mercury is present. Any waste listed above for which there is insufficient information to allow the Permittee to make a reasonable determination that mercury is not present shall not be exempt. The Permittee shall maintain any written determination of exemption at the facility for seven calendar years and make it available at all times for to U.S. EPA, the Illinois EPA, local agencies, or their duly authorized representatives for inspection.

Issue:

1. **The list needs to not be all-inclusive and make provisions for those waste that are not identified on this list but meet the mercury exemption criteria.**

Resolution:

Add a provision to this list that includes other waste types that meet the mercury exemption but may not be identified on this list.

Page IV-5 and IV-6, Section A.11,A.12 and A.13.

Issue:

1. **The requirements defined in condition 11, 12 and 13 are maintained at the facility through various reports and documents including electronic media. These records are available at any time for Regulators to review, however, these records that demonstrate compliance with the mercury feed rate are not incorporated into one log. This requirement of all the information documenting compliance in one log is not required by the Regulations and seem to be arbitrary and capricious.**

2. **Veolia feels that this additional condition is overly onerous, appears punitive, have no regulatory or safety basis and are not consistent with the requirements of the other Region 5 hazardous waste incinerator permits.**

Resolution:

Delete conditions A.11, A.12 and A.13. Veolia maintains all of required records that are defined in these conditions, however they are in many different reports and on electronic media but not part of one log. They are available for review at any time.

Section IV.a. Fixed Hearth Incinerators No. 2 & 3
Section IV.b. Transportable Rotary Kiln Incinerator (TRKI No. 4)

General Comment:

The Preamble to the 40 CFR 63.1200, NESHAP for Hazardous Waste Combustors (Incinerator MACT Rule) recommends that CAA permitting process take over the permitting of hazardous waste incinerators and that incinerator operating conditions be removed from this permit. The operating conditions specified in sections IV.a.D., IV.a.E., IV.b.D. and IV.b.E. are not consistent with the current Incineration MACT standards and Veolia's current operating permit limits defined in the Notification of Compliance (NOC). This inconsistency creates compliance problems and in some cases require dual continuous emission monitors to satisfy both the RCRA and Title V permit requirements. The temperatures, stack flow, CO and HCl defined in sections IV.a.D., IV.a.E., IV.b.D. and IV.b.E. are different than what is defined in Veolia's NOC and in the Title V permit. Veolia request that all incinerator operating permit conditions be removed from the RCRA permit, since they are already incorporated in the Title V permit. As indicated, the Incinerator MACT Rule recommends that all incinerator operating conditions be removed from the RCRA permit and incorporated in the Title V permit.

Page IV. a-1 Section.B.2.

Draft Permit reads: Change has been previously requested

The Permittee shall control hydrogen chloride (HCl) emissions, such that the rate of emissions is no greater than 77 ppm for HC1/C12 on a one-hour rolling average in the stack gas prior to entering any pollution control equipment of each incinerator.

Issue:
The HCl limit defined is the MACT limit from 2003.

Resolution:

This requirement should be deleted and replaced with the actual regulatory requirement defined in 35 IAC 724.443(b). All Incinerator MACT operating parameter requirements should be deleted from the RCRA permit as detailed in the Preamble to the Incinerator MACT Rule.

Page IV a.7.Section H.3. (Section H.2 was corrected after '03 comments, but not H.3.)

Draft Permit reads:

Except for stack gas flow rate and waste feed rates, the Permittee must record one-minute averages of all compliance data for Operating Limits (Section V.a.D.).

Reference correction:

"(Section V.a.D.)" should read "(Section IV.a.D.)"

Page IV. b-1.Section B.2. Change has been requested previously

Draft Permit reads:

The Permittee shall control hydrogen chloride (HCL) emissions is no greater than 77 PPM for HCL/Cl2 on a one-hour rolling average in the stack gas prior to entering any pollution control equipment in accordance with 35 Ill. Adm. Code 724.443 (b)

Issue:

The HCl limit defined is the Incinerator MACT limit from 2003 not the requirement defined in 35 IAC 724.443(b).

Resolution:

This requirement should be deleted and replaced with the actual regulatory requirement defined in 35 IAC 724.443(b). All Incinerator MACT operating parameter requirements should be deleted from the RCRA permit as detailed in the Preamble to the Incinerator MACT Rule.

Page V-1, Special Condition 2

Draft Permit reads:

The Permittee shall not process a drum of waste in the drum auger unit if the drum contains free liquids as determined by 35 Ill. Adm. Code 729.320

Issue:

Veolia does not operate a drum auger unit in the material processing areas.

Resolution:

Remove Special Condition 2 from Section V

Page V-1, Special Condition 6

Draft Permit reads:

Mandatory analysis must be conducted on each individual phase of a multi-phase waste stream.

Issue:

1. **This condition doesn't appear to be relevant or apply to Section V, Material Processing.**

2. **Method SW846 provides specific cases for multi-phase sampling and analysis. It is unnecessary to require multiple samples in all cases if following EPA Methods found in SW846.**

3. **In discussions with Chris Lambesis of USEPA, he indicated that this was not a mandatory analysis and only applied to metals. Veolia digest all of its metal samples in a microwave using high temperature and pressure in concentrated acids. The reaction is controlled and monitored throughout the digestion. This produces a completely homogenous sample.**

Resolution:

Delete this condition since it doesn't apply to this material processing section and due to phases being eliminated by the metals sample preparation procedure.

Page V-1, Special Condition 7

Draft Permit reads:

The waste stream profile must include a measured pH of a representative sample of the waste or identify a pH range not to exceed four standard units.

Waste identified with a single pH on the profile shall be considered nonconforming if the pH is greater than or less than two standard units of the profile value. Waste identified with a four standard unit pH range on the profile shall be considered nonconforming if the pH is greater than or less than the specified range.

The waste stream profile must include a specification of the total number and type of possible phases expected in the waste stream. Waste shall be considered nonconforming if the number or type of observed phases differs with the number or type indicated on the profile.

Issues:

1. **Liquid wastes are not managed in the material processing areas and so pH would not be a condition relevant to these areas.**

2. **The second paragraph of Condition 7 doesn't seem to be related to pH.**

3. **Currently, the facility's WAP defines a discrepancy with pH when the value is less than 2 or greater than 12.5 and it is not profiled as such. This would then require the D002 code to be added to the manifest. The pH of the waste is an indicator for processing. Compatibility testing is completed on all waste added to tanks. Waste is not mixed in material processing so the pH is not a processing issue.**

4. **The facility has had no incidents with waste due to pH.**

Resolution:

Remove Special Condition 7 from Section V and continue to follow the current requirements in the WAP.

Page VI-I, Section VI, Condition 1.

Draft Permit reads:

Within 60 days of the date of this permit, the permittee shall submit a permit modification to amend the contingency plan to address incidents where flooding may occur at the facility.

Resolution:

Veolia request that this requirement be modified to give the facility 90 days instead of 60 days to modify the Contingency Plan due to magnitude of this task.

Page VII-1 Item 4

Draft Permit reads:

The glove boxes are subject to the Container Air Emission Control conditions found in Section X of this permit because they most closely resemble containers.

Resolution:

Section X of the Draft Permit addresses Corrective Action. Replace "Section X" with "Section IX."

Page VIII-3

Draft Permit does not allow for "Alternative Percentage Standard for Valves," detailed at 35 IAC 724.961.

Issue:

Veolia would like the ability to use the Alternative Standard as allowed by 35 IAC 724.961.

Resolution:

Insert appropriate text into Section VIII Subpart BB of the Draft Permit to reflect this option:

Section 724.961 Alternative Percentage Standard for Valves

a) An owner or operator subject to the requirements of Section 724.957 may elect to have all valves within a hazardous waste management unit comply with an alternative standard that allows no greater than two percent of the valves to leak.

b) The following requirements must be met if an owner or operator decides to comply with the alternative standard of allowing two percent of valves to leak:

1) An owner or operator must notify the Agency that the owner or operator has elected to comply with the requirements of this Section.

2) A performance test as specified in subsection (c) of this Section must be conducted initially upon designation, annually and other times specified in the RCRA permit.

3) If a valve leak is detected it must be repaired in accordance with Section 724.957(d) and (e).

c) Performance tests must be conducted in the following manner:

1) All valves subject to the requirements in Section 724.957 within the hazardous waste management unit must be monitored within one week by the methods specified in Section 724.963(b).

2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

3) The leak percentage must be determined by dividing the number of valves subject to the requirements in Section 724.957 for which leaks are detected by the total number of valves subject to the requirements in Section 724.957 within the hazardous waste management unit.

d) If an owner or operator decides to comply with this Section no longer, the owner or operator must notify the Agency in writing that the work practice standard described in Section 724.957(a) through (e) will be followed.

Page IX-1

Issue:

Draft Permit is silent on Subpart CC applicability. None of the tanks (including the bulk solids storage building) at TWI are currently subject to Subpart CC. See following regulatory text (35 IAC 724.980(b)(7)):

Section 724.980 Applicability

b) The requirements of this Subpart CC do not apply to the following waste management units at the facility:

7) A hazardous waste management unit that the owner or operator certifies is equipped with and operating air emission controls in accordance with the requirements of an applicable federal Clean Air Act regulation codified under 40 CFR 60 (Standards of Performance for New Stationary Sources), 61 (National Emission Standards for Hazardous Air Pollutants), or 63 (National Emission Standards for Hazardous Air Pollutants for Source Categories). For the purpose of complying with this subsection (b)(7), a tank for which the air emission control includes an enclosure, as opposed to a cover, must be in compliance with enclosure and control device requirements of Section 724.984(i), except as provided in Section 724.982(c)(5).

Section 724.982(c)(5)

c) A tank, surface impoundment, or container is exempt from standards specified in Sections 724.984 through 724.987, as applicable, provided that all hazardous waste placed in the waste management unit is one of the following:

5) A tank used for bulk feed of hazardous waste to a waste incinerator and all of the following conditions are met:

A) The tank is located inside an enclosure vented to a control device that is designed and operated in accordance with all applicable requirements specified under federal subpart FF of 40 CFR 61 (National Emission Standard for Benzene Waste Operations), incorporated by reference in 35 Ill. Adm. Code 720.111(b), for a facility at which the total annual benzene quantity from the facility waste is equal to or greater than 10 megagrams (11 tons) per year;

B) The enclosure and control device serving the tank were installed and began operation prior to November 25, 1996; and

C) The enclosure is designed and operated in accordance with the criteria for a permanent total enclosure as specified in "Procedure T - Criteria for and Verification of a Permanent or Temporary Total Enclosure" under appendix B to 40 CFR 52.741 (VOM Measurement Techniques for Capture Efficiency), incorporated by reference in 35 Ill. Adm. Code 720.111(b). The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical or electrical equipment; or to direct air flow into the enclosure.

The owner or operator must perform the verification procedure for the enclosure as specified in Section 5.0 to "Procedure T - Criteria for and Verification of a Permanent or Temporary Total Enclosure" annually.

Resolution:

Include text at the beginning of Section IX which acknowledges that all waste storage tank systems, including the bulk solids storage building at Veolia have been subject to subject to 40 CFR Part 61 Part 61 Subpart FF (Benzene Waste Operations NESHAP, BWON) prior to November 25, 1996. Should Veolia discontinue management of BWON wastes, the tanks at the facility will become subject to Subpart CC requirements.

Page IX-5 Section J

Issue:

Technically, Section J should be Section I.2. as it is a continuation of reporting requirements. The reporting requirements for tanks should be I.1. and control devices I.2.

Resolution:

Correct the numbering of the outline.

Page IX-5 Section J1

Draft Permit reads:

The permittee shall submit a semiannual written report to the Agency for control devices used in accordance with 35 Ill. Adm. Code 724.987, except as provided condition X.J.2 below. The report shall describe each occurrence during the previous 6-month period when either of the two following events occurs: a control device is operated continuously for 24 hours or longer in noncompliance with the applicable operating values defined in 35 Ill. Adm. Code 724.935(c)(4) or a flare is operated with visible emissions for five minutes or longer in a two-hour period, as defined in 35 Ill. Adm. Code 724.933(d). The written report shall include the USEPA identification number, the facility name and address, and an explanation why the control device could not be returned to compliance within 24 hours, and actions taken to correct the noncompliance. The report shall be signed and dated by an authorized representative of the permittee.

Issue 1 and Resolution:

The third line of the paragraph contains a reference to X.J.2. Change reference should be IX.J.2.

Issue 2 and Resolution:

The report discussed must be submitted in the event that either of two events occurs. The first event is continuous operation of a control device which is out of compliance with the requirements of 35 IAC 724.935(c)(4)for more than 24 hours. 35 IAC 724.935(c)(4) sets out requirements for regenerative carbon systems. Veolia does not operate any regenerative carbon systems. If Veolia operated systems subject to Subpart CC, the appropriate reference would be 35 IAC 724.935(c)(6.)

It seems the required reporting is applicable to continuously monitored control devices. Our carbon is not continuously monitored and so it is likely that paragraph 2 should be deleted entirely.

Page IX-5 Section J2

Draft Permit reads:

A report to the Agency is not required for a 6-month period during which all control devices subject to Subpart CC are operated by the permittee so that both of the following conditions result: during on period of 24 hours or longer did a control device operate continuously in noncompliance with the applicable operating values defined in Section 724.935(c)(4) and no flare was operated with visible emissions for five minutes or longer in a two-hour period, as defined in Section 724.933(d).

Issue:

Third line of text should read "during no period of 24 hours..."

Section X

General Comment:

In many sections of this permit the Corrective Action, Section X is referred to as Section XI. All references to Section XI Corrective Action should be changed to Section X. Also, Section X now define corrective action requirements, as a result Attachments G and H of this permit should be deleted since those requirements are no longer applicable.

Page D-1 Item 10

Draft Permit reads:

List of Required Plans and Documents Contained in the Approved Permit Application:
.....
Temporary initial screening protocol. *May 30, 2003*

Issue:

This screening protocol has been superceded by the Incinerator MACT Rule. Needs to be removed from Section D.

Pages E-1 etc. Attachment E

Issue:

The following waste codes need to be added to the list of approved waste codes:

- **P006**
- **U006**
- **U033**

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
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PAT QUINN, GOVERNOR DOUGLAS P. SCOTT, DIRECTOR

217/524-3300

December 2, 2009

Certified Mail
7004 2510 0001 8615 8602

Veolia ES Technical Solutions, L.L.C.
Attn: Doug Harris
7 Mobile Avenue
Sauget, Illinois 62201-1069

Re: 1631210009 -- St. Clair County
Veolia ES Tech
ILD098642424
Log No. B-29R
RCRA Permits File
Permit Corr

Dear Mr. Harris:

Attached are the Illinois Environmental Protection Agency response to public comments and response to facility comments received during the public comment period for the draft RCRA permits issued on June 3, 2003 and July 24, 2008.

If you have any additional questions in this matter, please contact Mary Riegle at 217/524-3329.

Sincerely,

Stephen F. Nightingale, P.E.
Manager, Permit Section
Bureau of Land

SFN:MER:bjh\09292s.doc

Attachment 1 Response to Public Comments
Attachment 2 Response to Facility Comments

Exhibit D

Illinois EPA and U.S. EPA Response Summary

Public Comments Offered on 2003 and 2008 Draft RCRA Permits
For Veolia/Onyx Environmental Services/TWI Facility
RCRA Part B Permit Renewal

This document has been prepared to describe the Resource Conservation and Recovery Act Part B permit renewal process for Veolia ES Technical Solutions, L.L.C. (formerly Onyx Environmental Services, TWI facility) in Sauget, Illinois. It also summarizes pertinent issues, questions and comments received on the June 2003 draft RCRA permit during the public comment period and public hearing, and provides the Illinois EPA's and U.S. EPA's responses to those questions and comments in light of a subsequently prepared draft permit public noticed July 31, 2008. Comments received on the 2008 re-draft of the RCRA Part B permit will also be addressed in this document. This document with its attachments is intended to fulfill the requirements for responding to significant comments found in Title 35, Illinois Administrative Code (35 Ill. Adm. Code), Section 705.210 and 40 CFR 124.17.

Introduction to RCRA

The Resource Conservation and Recovery Act (RCRA) regulates the treatment, storage and disposal of hazardous wastes nationwide. When enacted in 1976, RCRA expanded the Solid Waste Disposal Act and, in 1984, was amended when Congress passed the Hazardous and Solid Waste Amendments (HSWA) to include other features, principally, corrective action for past releases. The U.S. Environmental Protection Agency and the Illinois EPA (Agency) jointly administer the RCRA permitting program in Illinois. Illinois EPA is responsible for administering the original Act and several aspects of the Amendments, including the public involvement aspects of the entire program. The U.S. EPA retains authority for certain aspects of the RCRA program for which Illinois has not yet been authorized including air emissions from hazardous waste processing equipment. The RCRA permitting process and permit decision regarding the Veolia facility have been shared between the Illinois EPA and U.S.EPA.

Applicant

In 2006, the Onyx Environmental Services facility was acquired by Veolia ES Technical Solutions, L.L.C. (Veolia); consequently the permit applicant became Veolia. The facility is a hazardous and non-hazardous waste treatment facility in Sauget, Illinois that has been in operation since 1979. The facility was operated under interim status rules until its RCRA operating permit was issued March 31, 1988. The facility receives hazardous and non-hazardous wastes for repackaging, bulking, and on-site incineration. These wastes may either be solids, liquids, containerized gases or sludges. They can be received via tanker trucks or in containers such as drums. Wastes from tanker trucks are pumped into tanks for storage or fed directly to either of two fixed-hearth refractory kiln incinerators identified as Units No. 2 and 3. A third incinerator at the facility, Unit No. 4, is a transportable rotary kiln. All waste unloading and storage areas must have secondary containment systems consisting of leak-proof concrete

structures designed to collect spills. These structures will continue to be inspected routinely for waste spills and structural damage. The volume of these containment systems must be equal to either the largest tank in the area or ten percent (10%) of the total volume of the containers stored in the area.

This renewed RCRA permit requires the facility to follow specific procedures in order to operate safely and provides a more stringent waste analysis plan (WAP). The WAP ensures that only wastes that can be properly handled are accepted at the facility. Wastes that do not meet the acceptance criteria are refused. Once a waste has been evaluated and deemed acceptable, it can be transported from the generator to the facility. At the Veolia facility, the waste is again analyzed to ensure that it is the approved waste. Wastes that do not meet the facility's acceptance criteria or conform to the initial pre-acceptance analysis must be rejected. The approved Veolia permit has stringent controls on the concentrations of mercury that may be fed into the incinerator; consequently the WAP's requirements for mercury testing have been strengthened. In addition to the waste acceptance and analysis processes, procedures to ensure safe operations include the employee training program, an inspection plan and the emergency response plan. The training plan ensures that the employees are properly trained for their jobs and in the facility's emergency procedures, and numerous safety systems and devices at the facility ensure that the hazards associated with handling hazardous wastes are minimized.

Comments provided by the American Bottom Conservancy at the 2003 hearing and during the subsequent comment period, indicated a potential exposure risk to subsistence fishers harvesting fish from area lakes. U.S. EPA performed risk assessments of potential exposure of this fishing population to potential chemical emissions attributable to the incinerators. The risk assessment work indicated a potential risk to this exposed population from mercury deposition attributable to Veolia's emissions at rates allowed under the Clean Air Act's Maximum Achievable Control Technology (MACT) standards. The mercury MACT standards are based on the capacity of available air pollution control technology to remove mercury from incinerator stack exhaust gas once mercury-containing waste has been incinerated. To lower the risk to exposed populations, the 2008 re-draft and subsequent final RCRA permit requires the facility to control the amount of mercury fed into the incinerators as a means of further reducing the mercury emissions from the stack beyond what can be achieved solely by the incinerators' air pollution control devices.

RCRA Permit Process & Public Involvement

Any entity that treats, stores or disposes of hazardous wastes is responsible for the safe management of those wastes and is subject to RCRA requirements. In Illinois, these entities must apply for a RCRA permit from the Illinois EPA and, in some instances, also from the U.S. EPA. U.S. EPA retains authority for some regulations, including those recently promulgated, prior to the state being authorized to administer those rules. The agencies review the permit application to assess its technical merits and to determine whether it satisfies their respective regulatory requirements. Based on the application, the agencies then make their tentative decisions to prepare either a draft permit or draft denial of the permit request. If the applicant

has satisfied all the regulatory requirements, a draft permit is prepared that precisely describes the hazardous waste management practices the facility must follow, what wastes and the storage, treatment or disposal units it may manage, and any special design or operating provisions it must meet. The agencies then give public notice of the draft (or proposed) permit decision and provide at least 45 days for the public, including the applicant, to comment. If a hearing is requested or deemed necessary by the agencies, the comment period is extended to include the hearing and up to 30 days after the hearing.

The RCRA permit renewal application was submitted by predecessor company, TWI, in late 1997 and has undergone several updates, including by the successor company, Onyx, during the agencies' reviews. The agencies developed a draft permit for Onyx and made it available to the public on June 3, 2003. It was public noticed in three local newspapers jointly with the draft Clean Air Act Permit Program (CAAPP) permit and the notice was mailed to an extensive mailing list of area public officials, citizens and activists. Information repositories were established at the Cahokia Public Library and the U.S. EPA offices in downtown Chicago prior to public notice of the draft permits. In addition to the CAAPP materials, the repositories contained copies of the Onyx permit application for the RCRA permit renewal, the Illinois EPA's and U.S. EPA's draft RCRA permit renewal and a fact sheet describing the draft permit. These repositories also provided information concerning the screening environmental risk assessment performed by U.S. EPA for the facility. Due to the anticipated level of concern and interest in the draft CAAPP permit, a joint public hearing was scheduled to accept comment on both the CAAPP and RCRA permits. The public hearing was held July 22, 2003 at the Cahokia Village Hall. Over 40 persons attended.

In response to comments provided during the 2003 Onyx draft renewal permit's public involvement process, the U.S. EPA performed additional risk assessment work, the results of which were then incorporated into a new draft RCRA permit. This subsequently redrafted RCRA permit for the new owner/operator, Veolia, was public noticed once per week for three successive weeks beginning July 31, 2008 in two local newspapers (Belleville News Democrat and the East St. Louis Monitor) and the notice was mailed to an extensive mailing list of area public officials, citizens and activists including those who had participated in the 2003 permitting process.

Information repositories were again established at the Cahokia Public Library, to provide local access to the permitting information, and at the U.S. EPA offices in downtown Chicago prior to public notice of the draft permit. The repositories contained copies of the Veolia permit application for the RCRA permit renewal, the Illinois EPA's and U.S. EPA's redraft of the RCRA permit renewal and a fact sheet describing the redrafted permit. These repository documents also contain a CD of the entire U.S. EPA decision-making record (U.S. EPA's RCRA administrative record docket), including all of the documents concerning the environmental risk assessment work performed by U.S. EPA for the facility.

Permit Decision & Requirements

After consideration of all of the comments received during both draft RCRA permits' comment periods, the Illinois EPA and U.S. EPA issued the final RCRA permit renewal to the Veolia ES Technical Solutions, L.L.C. facility on December 2, 2009.

The initial 2003 draft RCRA permit was based on a risk screening process which did not consider the subsistence fishing scenario but that scenario was considered in subsequent risk assessment work. Consequently, the Agencies have developed a final RCRA permit with a broader scope than was initially proposed in 2003 and than the facility's previous RCRA permit.

Based on public comment, certain conditions of the 2003 draft RCRA permit for Onyx have been changed and have been imposed in this final permit. Concern over emissions of heavy metals causing exposures to surrounding communities, led the U.S. EPA to perform another screening risk assessment which identified the potential for increased risk to subsistence fishers fishing area lakes from the facility's mercury emissions. Subsequent risk assessment work led to permit limits on the amount of mercury fed to the incinerators and consequently also to revisions of the waste analysis plan for the facility in order to monitor the mercury-containing wastes accepted and regulate the feed of mercury-containing waste to the incinerator.

The expanded scope of the final renewed RCRA permit includes annual limits on the mercury content of waste fed into the incinerators in order to reduce emissions of mercury, a more stringent WAP to closely monitor mercury-containing wastes that are accepted, the regulation of several previously unregulated units, including waste staging areas at incinerator feed and injection systems, and a requirement for the facility to modify their contingency plan to address the potential for flooding of the facility.

Several changes were made to the permit to correct factual, typographical and formatting errors. Others were made to clarify the Agencies' intent. These clarifications include:

+ Section I.B.2 of the permit has been clarified by adding language to restrict the exemption from prior Illinois EPA approval of certain facility changes by limiting it to those changes in structural or foundation design that will not increase the possibility of fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste constituents.

+ Regulations require the permittee to report any non-compliance that may endanger health or the environment. This report must be made orally within 24 hours after the permittee becomes aware of the circumstances. A written submission must also be provided within 5 days. Permit conditions in Sections IV.a.I. and IV.b.F. were modified to clarify this requirement.

The changes from the 2008 re-draft of the permit to this final renewed permit based on the facility's comments have been listed as an attachment to this Response Summary.
A summary of public comments provided during the public comment periods on both the 2003

and 2008 draft renewals of the RCRA permit for the facility and the Illinois EPA's and U.S. EPA's responses follow. Comments provided in 2003 that reference the CAAPP permit or its permitting process, have not been addressed in this RCRA Response Summary. Comments provided by the facility have been addressed by Illinois EPA and U.S. EPA in separate documents attached to this Response Summary.

Environmental Justice/Disproportionate Impact Comments

Comment provided in 2003:

Onyx sits in the middle of an urban core of more than two million people, the closest of whom are low income and minority and are being disproportionately affected–truly a case of environmental injustice. Most of the residents who live within three miles of this plant are minority and low income. A map of TRI sources indicates this area is unduly burdened. IEPA must deny this facility permits because of the overwhelmingly disproportionate impacts its pollution has on the surrounding low-income and minority residents.

Comment submitted on the 2008 draft permit:

There are nearly 26,000 households within three miles of this facility, 20,758 people below the poverty level. Sixty-three percent of the people within three miles are African-American. There are 19,190 children. (See ECHO report of the area's demographic profile.) EPA ECHO Report http://www.epa-echo.gov/cgi-bin/get1cReport.cgi?tool=echo&IDNumber=110000438893 (Demographic Profile)

Comments provided in 2003:

Our communities demand respect and that includes the right to live in a healthy atmosphere. We request a risk analysis and environmental justice determination to examine the health impacts of the facility to the community and the entire area.

RCRA affords the agency broad latitude to consider disproportionate impacts on low-income and minority populations that Onyx will continue to have if the permits are issued.

Illinois EPA established an Environmental Justice policy; if it is to be taken seriously, it should be used in this instance. This directive establishes as one of its top purposes "to ensure that communities are not disproportionately impacted by degradation of the environment or receive a less than equitable share of environmental protection and benefits." Director Cipriano's directive continues: "When concern is expressed or identified regarding potential environmental impacts in an environmental justice area, the Illinois EPA will look at the information provided and other available information to assess whether there are potential significant adverse environmental impacts. If there are any such potential adverse impacts, the Illinois EPA will either request an assessment or assess these impacts using the information and tools reasonably available, and within

the time constraints allowed by applicable state and federal law. The Illinois EPA will make such assessments available to the public and other affected persons or entities. An appropriate response will be made based on these assessments." We urge IEPA to implement this directive. Almost every time the facility violates its permit and has an "upset" it releases clouds of poisonous gases into the surrounding community. These clouds of gases are, of course, having significant and disproportionate environmental health impacts on minority and poor residents who live in the nearby neighborhoods.

Comment submitted on the 2008 draft permit:

This area has been declared a potential environmental justice community. Environmental justice permits require enhanced outreach and special consideration for the public to be able to understand and comment on EJ-related permits and actions. American Bottom Conservancy is a member of the Illinois Environmental Justice Community Advisory Group. The Illinois EJ guidelines have been ignored for the Veolia RCRA permit.

Response: The Illinois EPA and U.S EPA are committed to protecting the health of citizens and the environment, and to promoting environmental equity in the administration of its programs to the extent it may do so legally and practicably. The Illinois EPA supports the objectives of achieving environmental equity for all of the citizens of Illinois.

"Environmental Justice" is based on the principle that all people should be protected from environmental pollution and have the right to a clean and healthy environment. To the Illinois EPA, environmental justice is the protection of the health of the people of Illinois and its environment, equity in the administration of the State's environmental programs, and the provision of adequate opportunities for meaningful involvement of all people with respect to the development, implementation and enforcement of environmental laws, regulations, and policies.

Consequently, during consideration of this RCRA permit application, the Illinois EPA and U.S. EPA have taken considerable steps to provide citizens with access to the RCRA permit renewal process for the facility. The Agencies coordinated the original 2003 RCRA public notice and public hearing with the original CAAPP permit process; established a local permit documents repository for ease of access to surrounding community members; held the joint RCRA and CAAPP hearing near the facility to discuss both draft permits with area residents; extended the public comment period to accommodate commenters; incorporated critical public comment addressing concerns for risks to public health into a redrafted RCRA permit in 2008; and went through a similar public notice process with the redraft of the RCRA permit, though no public hearing was held.

The Agencies provided public notice in three local newspapers for the 2003 draft permit and in two newspapers for the 2008 re-draft when notice in one local newspaper is all that was required for either permit action. The locally available information repository was at the Cahokia Public Library and an additional information repository was established at the Region 5 U.S. EPA

offices in downtown Chicago for the convenience of commenters in either location for both the 2003 and 2008 draft permits' comment periods. The comment periods were extended for specific requesters who requested more time for review on each draft permit, as well.

After accepting comments from the public in 2003, the Illinois EPA and U.S. EPA chose to rewrite the draft permit rather than merely issue a final permit that contained the revisions. The 2008 redraft of the permit allowed an additional public comment period for members of the community to provide input on the improved draft RCRA permit.

In addition to these efforts to give nearby communities access to the permitting process, implementation of Environmental Justice policies dovetails with our responsibilities for addressing comments and, where possible, incorporating them into the permit decision. American Bottom Conservancy requested consideration of potential health impacts to area subsistence fishers; the requested risk assessment work was performed, and resulted in the identification of potential human health risk associated with mercury. This, in turn, resulted in imposition of stringent mercury controls within the RCRA permit. The addition of mercury feed limits to the permit limits mercury emissions more stringently than those based on the technological controls of the Maximum Achievable Control Technology (MACT) standards imposed by the Clean Air Act's Title V permit.

Other efforts to increase environmental controls at the facility include the permitting of certain storage or staging areas and miscellaneous units previously determined to be permit exempt. A feature of the previously effective RCRA permit exempts certain facility changes from requiring prior Illinois EPA approval. In the renewed permit, this permit section has been clarified by adding language to restrict that exemption, limiting it to those changes in structural or foundation design that will not increase the possibility of fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste constituents.

Environmental Justice concerns have also been addressed by the state's history of vigorous enforcement against violations of Illinois' Environmental Protection Act (Act) at this facility. These enforcement efforts have been designed to bring the facility into compliance with its permit and, in so doing, protect the health of the environment and surrounding communities. In the past, when the facility design or operating procedures employed at the facility resulted in a violation of the regulations or other conditions of the permit, the Illinois EPA and the Illinois Attorney General's Office required the permittee to address, correct and prevent recurrences.

Permits controlling the management of wastes and emissions from the facility, and the diligent enforcement of those permit requirements, are the primary tools the Illinois EPA uses to protect the environment and health of nearby citizens.

Comment provided in 2003:

> *One teaspoon [of mercury] is enough to contaminate a lake. Many area residents rely on fish from area lakes for their main source of protein...The area waters are already*

contaminated with mercury and the Illinois Dept. of Public Health has issued fish advisories on the lakes at Frank Holten and Horseshoe Lake state parks, where many area folks fish for their main source of protein. Mercury emission limits from this plant should be reduced to zero.

Response: A general, state-wide mercury advisory for predator fish is in place for children and women of child-bearing age. Although the Illinois Department of Public Health maintains a list of specific water bodies with more restrictive fish consumption advice due to greater levels of mercury than those found in most predator fish in Illinois, Frank Holton Lake and Horseshoe Lake are not on that list.

Two screening risk assessment studies were conducted by the U.S. EPA during the review process for the RCRA permit; one in 2003 and a subsequent screening performed in 2007. The second risk screening assessed the potential for health effects from toxic and/or carcinogenic metals emissions (e.g. mercury, cadmium, lead, arsenic, beryllium, chromium) from the facility's incinerators. The study identified only mercury emissions as providing the potential for human health risks based on the screening modeling. Further mercury risk assessment calculation helped establish feed rate limits for this metal that were then placed in the 2008 redraft of the RCRA permit. These mercury feed limits have been maintained in the final permit. Feed rate limits have been established in this permit to ensure that the emissions of these metals are sufficiently low so as to protect human health and the environment. The U.S. EPA risk screening report entitled Risk Screening for Onyx Incineration Facility, Sauget, IL, September 23, 2003 and their subsequent risk screening entitled Veolia Risk Screening and Risk Recommendations, May 2007 are provided at the web page cited at the end of this Response to Comments for reference.

Health Effects Comments

Comments provided in 2003:

The incinerators consistently release large amounts of arsenic, dioxin, and other highly toxic air pollutants. Onyx also contributes to the smog levels that are plaguing the entire St. Louis Metro and Metro East area. The facility sits in a concentrated area of many major sources of air pollution, several of which are also in noncompliance... There is both a cumulative impact on the environment and on public health and the potential for a synergistic impact of various chemicals combining in the airshed.

This facility has not operated so that workers' safety, public health, and the regional environment are protected. During routine operations this plant emits substances to the environment which are hazardous to human health and destructive to the conditions necessary for human and other life and for a healthy community.

Some of the emissions allowed under the previous permit were intended to prevent relevant harm, but the facility has over the years emitted quantities of those substances in

excess of permit limits, as the record shows. This record offers no bases for acceptable satisfactory performance in the future. Moreover, there have been exceptional incidents, including explosions, indicating both the instability of some materials received for treatment and management deficiencies. This facility should not continue to operate as before.

There are high rates of lung and heart disease and cancer in the region. Asthma rates are up to 10 times the national average and are very high among children. This permit would add 311 more tons to our air pollution problem, and that's assuming Onyx operates well and according to the permit limits, and their record indicates that that is unlikely.

RCRA affords the U.S.EPA and the state with broad authorities to compel a permit applicant to conduct analyses and provide the agencies with the information needed to protect residents. Moreover, RCRA provides the agencies with the authority to conclude that it is impossible to impose permit conditions on the facility that will protect the residents from additional pollution – such as increased exposure to lead contamination.

Response: RCRA does provide broad authority for federal and authorized state environmental agencies to 1) compel facilities to provide or collect additional information about the potential for site-specific risks from permitted facilities; 2) evaluate that information (including the performance of risk assessments); and 3) add to the permit conditions containing requirements for the protection of human health and the environment not found in the generally applicable rules. This authority arises from the "omnibus provision" and is found at Section 3005(c)(3) of RCRA and in implementing federal and state rules. In addition, the U.S. EPA has interpreted this authority to "encompass the authority to deny permits where necessary to afford such protection." 50 *Fed. Reg.* 28702, 28723 (July 15, 1985). The omnibus authority is the basis for the risk assessments performed by the U.S. EPA for the Veolia facility and the additional permit conditions for controlling mercury feed rates as discussed below and throughout this document.

Risk screening of toxic and carcinogenic metals, including lead and arsenic, was conducted for this facility by the U.S. EPA (see immediately previous response). Mercury was identified as the only metal of concern to human health, and further, was determined to be of concern only as a potential risk to subsistence fishers. Based on additional risk assessment and conservative assumptions used in the mercury emissions calculations, new permit limits on the mercury feed rate were established to control the incinerators' emissions to ensure that incinerator operations do not have an adverse impact on public health.

In the practice of risk assessment, the Hazard Index (HI) is a measure of the potential for expected non-cancer health impacts (a HI less than or equal to 1 is the value at which there is no adverse human health effect expected.) Cumulative non-cancer impacts have been accounted for in the setting of the feed rate limits that will result in mercury emissions 75% lower (HI=.25) than the value at which there is no adverse human health effect expected from that exposure

(HI=1.00). The Veolia screening risk assessment reports are provided at the web page cited at the end of this response summary.

Lung and heart disease and various cancers are prevalent in the U. S., largely due to an aging population and personal lifestyle choices. Allergies, asthma and other respiratory illnesses are on the rise in the United States, at least for children, although it is not known specifically what causes these illnesses. Many factors have been linked with the upsurge in asthma cases: exposure to allergens (e.g., molds, pets, dust mites and other insects) and irritants (perfumes, tobacco smoke) and respiratory infections, to name a few. Ozone, generated by sunlight interacting with hydrocarbons in the air, has been identified as a cause of asthma. Other causes of poor air quality, while potentially a trigger of asthma attacks, have not been identified as a cause of asthma. Air emissions from the Veolia facility are regulated by the recently issued CAAPP permit. Please contact the U.S. EPA for further information concerning the CAAPP permit.

Risk Assessment Comments

Comments provided in 2003:

We are confused as to whether it is a general or site-specific risk assessment.

The risk assessment is not facility-specific; it needs to be. It also does not address cumulative and synergistic effects. Since the permit was written, studies indicate mercury more injurious to health and development than previously thought; mercury emissions should be eliminated.

U.S. EPA Response: The 2007 U.S. EPA risk assessment was site-specific in many aspects. Dispersion modeling was based on meteorological data from the St. Louis metro area. Actual land elevations were imported into the model. Site-specific stack parameters (temperature and flow rate) were also used. Dispersion coefficients and surface roughness and other meteorological parameters were picked from a range of values that correspond to actual land use/land cover conditions surrounding the facility. Site-specific mercury speciation and particle size distribution (although only from Unit 4) were considered in conducting the risk assessment. Receptor locations in the risk assessment, including the location of fishing lakes, were also customized for the Sauget area. Dioxin/Furan and metals including mercury were modeled at the maximum standard associated with the Maximum Achievable Control Technology (MACT) rule, not actual stack test results. However, the Hazardous Waste Combustion (HW) MACT standards were converted into estimated stack emission rates for dioxin/furan and the MACT metals using the same stack conditions used to model the exhaust plume. Those parameters were taken from or chosen conservatively in comparison to actual test burn stack conditions.

In regard to the possibility of synergistic effects of chemical emissions, the U.S. EPA typically assumes that there is no significant interaction between chemicals (i.e., either synergistic or antagonistic) when the chemical exposures are very small. However, when conducting baseline risk assessments, the U.S. EPA does add the toxic effects of emissions as a surrogate for

potential chemical interactions, even though it is understood that toxic effects are, in reality, only additive if and when the chemicals affect the same target organ or act through the same mechanism. In the case of the Veolia risk assessment, the estimated risks and hazards (i.e., the cancer risks and non-cancer hazards) were based on an assumption that the target constituents were each emitted continuously at the highest allowable emission concentration, so adding the potential toxic effects as a surrogate for potential chemical interactions would also be a conservative approach.

The U.S. EPA's acceptance of the concept of additivity for risk characterization of chemical mixtures at low dose exposure levels is consistent with other scientific conclusions, and we refer the reader to reports published by the Commission on Life Sciences of The National Academy of Science/National Research Council (NRC); and the Presidential/Congressional Commission on Risk Assessment and Risk Management.

The NRC Report is titled: "Complex Mixtures: Methods for In Vivo Toxicity Testing" (1988). The Executive Summary includes the following statement:

> *"On the basis of theoretical considerations and its examination of some epidemiologic studies, the committee noted that effects of exposures to [chemical] agents with low response rates usually appear to be additive. The only examples of interaction that were considered greater than additive occurred in humans exposed to agents, such as cigarette smoke, that alone produced a high incidence of effects. Current quantitative models used to assess cancer risks support these results."*

The same NRC report also concluded that effects of exposures to agents with low response rates usually appear to be additive. The experimental evidence that can be used to infer effects at low doses appears to support the assumption that low dose additivity does not underestimate, and in most cases probably overestimates risk:

> *"When the individual components of a chemical mixture exhibit different kinds of toxicity or have different biological mechanisms of toxicity, they do not interact - they act independently at low doses. In that case, the dose-response relationships for each chemical should be considered independently. For example, if the chemicals of concern at a Superfund site are copper, a gastrointestinal toxicant; lead, a developmental toxicant; and heptachlor, a neurologic toxicant, their toxicity should be evaluated independently and not combined into a single "noncancer" risk estimate. Experiments have shown that when groups of unrelated chemicals with unrelated targets of toxicity were administered to rodents simultaneously at doses equal to their separate NOAELs, no cumulative effects were observed; each chemical acted independently (Jonker et al. 1990, Groten et al. 1994). The same is true of groups of chemicals with the same target but different mechanisms of action (Jonker et al. 1993); studies in which similar chemicals with similar mechanisms and targets were administered simultaneously indicate that antagonism is the usual outcome (Falk and Kotin 1964, Schmähl et al. 1977)."*

The Presidential/Congressional Commission Report is titled: "Risk Assessment and Risk Management in Regulatory Decision-Making" (1997). In the Section on 'Evaluating Chemical Mixtures", the Report makes the following statement:

"Most of the information that is available on interactions among chemicals comes from human occupational studies and from rodent bioassays. Those studies generally evaluate doses that are much higher than the low, environmental doses commonly encountered. Interactive effects (either synergistic or antagonistic) depend heavily on dose; therefore, characterizing interactions that occur at one set of doses (such as those used in a rodent bioassay) is likely to provide very little information about interactions at very different doses (such as those generally encountered in the environment). "High" doses for combined effects are defined as those at which statistically significant increases in detrimental outcomes are observed in either laboratory or occupational studies. For the most part, exposure to chemical mixtures in the environment occurs at "low" doses - typically, one thousandth (or less) of the doses at which toxicity is observable in rodent bioassays or in epidemiologic studies of highly exposed workers. The ratio of exposures observed to cause adverse effects and actual human exposures is called the margin of exposure (EPA 1996b) (see Need for a Common Metric on page 43).

The combined effects of exposure to chemicals in a mixture are determined by how individual components of the mixture affect the biological processes involved in toxicity. Components of a mixture can affect biological processes in many ways. For example, anything that affects the absorption, distribution, metabolism, or elimination of a chemical will affect the amount of that chemical that is available to react with DNA or other cellular targets. Because interactions leading to synergism or antagonism are the result of reactions of many molecules at many cellular sites, a mathematical dose-response model of a synergistic or antagonistic response that depends on such mechanisms is most likely nonlinear at low doses. Such logic strongly suggests that any disease process that depends on such interactions is only marginally important at low exposure levels. Only at high doses of one or more mixture components - such as cigarette smoke, alcohol, and some substances in occupational exposures - is the combined effect likely to be detectably greater than the sum of the individual effects. For example, occupational exposure to asbestos is associated with a mortality ratio for lung cancer of up to 5 (that is, in comparison to persons not occupationally exposed to asbestos) and smoking with a mortality ratio for lung cancer of about 10; but asbestos workers who smoke have a mortality ratio for lung cancer of 50, not 15. Similarly, the risk of liver cancer associated with aflatoxin is increased markedly by hepatitis B virus infections."

Comments provided in 2003:

When (if?) dioxin limits are established, will those limits be applied immediately? The permit limits for both dioxins and furans are too high. EPA should recommend further reductions.

Over-predicting risk last year or this year may be totally unacceptable this year or the next. There must not be lag time in enforcing the new limits. The public must be protected.

U.S. EPA Response: Veolia is already subject to the HW MACT rule that includes a standard for dioxins and furans. The 2007 risk assessment evaluated dioxins and furans by converting the MACT standard into an emission rate for each stack using the same stack conditions used to model the exhaust plume. Those parameters were taken from or chosen conservatively in comparison to actual test burn stack conditions. Dioxin and furan emissions, when limited to compliance with the MACT standard, did not contribute excessive risk to the surrounding community.

Comments provided in 2003:

Lead emissions were not addressed in the risk assessment. There are high lead levels in the soils in East St. Louis and high levels of lead in the children of both East St. Louis and St. Louis. Lead emissions should be drastically reduced.

U.S. EPA Response: Lead emissions were discussed in detail in the U.S. EPA 2007 revised Risk Screening and Risk Management Recommendations, Part II, *Findings of this Risk Screening*, Section B, *Toxic/Carcinogenic Metals*, Number (1), *Lead*, starting on page 9. This document is provided at the web page listed at the end of this Response to Comments.

Comments provided in 2003:

We are concerned that the risk assessment model was based on actual emissions data provided by the facility. We do not really know how many tons the facility actually emits of dioxins, furans, metals, hazardous and organic pollutants. We only know what they say they emit. Given the assumption that many (most?) facilities under-report, and that this particular facility has been cited for falsification of records, the results of the modeling would be flawed.

U.S. EPA Response: The 2007 risk assessment was based on emission rates at or below the MACT standards to which the facility is now subject. The permit contains special mercury conditions designed to ensure the collection and documentation of the necessary information to demonstrate compliance for a mercury feed rate limit. The special mercury conditions of this permit are more comprehensive than the approach formerly employed by the facility.

Comment submitted on the 2008 draft permit:

We very much appreciate that, at our request, US EPA conducted a site-specific risk assessment study to determine whether Veolia operates in accordance with the NESHAP MACT Standards for Hazardous Air Pollutants so that it is protective of human health and the environment. According to the RCRA permit, the Veolia Risk Report concluded that emissions from the facility would indeed create an unacceptable risk to human health, and conditions were added to the permit that will reduce the mercury feed rate

limits, thereby reducing emissions of mercury. Thank you for recognizing the danger from Veolia to those who rely on fish caught at Frank Holten State Park for their primary source of protein. We are eager to obtain a copy of the report.

We also thank you for other changes you have made and will make to the permit in response to comments to make the permit more protective of public health and the environment.

Response: Risk screening of toxic and carcinogenic metals, including lead, was conducted specifically for this facility by the U.S. EPA. Mercury was identified as the only metal of concern to human health, and further, was determined to be of concern only as a potential risk to subsistence fishers. Based on further risk assessment of the subsistence fishing scenario, new permit limits on the mercury feed rate were established to control the incinerators' mercury emissions to ensure that incinerator operations do not have an adverse impact on public health. The Hazard Index (HI) is a measure of the potential for expected non-cancer health impacts (a HI less than or equal to 1 is the value at which there is no adverse human health effect expected.) Cumulative health impacts have been accounted for by setting the feed rate limits that will result in mercury emissions 75% lower (HI=.25) than the value at which there is no adverse human health effect expected (HI=1.00). The risk assessment reports are provided at the web page cited at the end of this response summary.

The risk assessment work reflected an analysis of whether the emissions limits set at CAAPP technology-based levels could provide emission controls that would reduce the level of risk to acceptable levels for subsistence fisher exposures to mercury emitted from the facility. The technology-based emissions controls could not assure regulators of a protective HI for mercury of less than .25 so a risk-based mercury emissions level was developed. Because of a lack of acceptable data, no system removal efficiency (SRE) could be calculated for the air pollution control equipment. Consequently, U.S. EPA risk assessors assumed that all of the mercury fed to the incinerators would be emitted in the stack exhaust gases, and performed all calculations based on an SRE of 0%. Consequently a very conservative feed rate was calculated.

If acceptable data are provided by the permittee which support an SRE of greater than 0%, the U.S. EPA and Illinois EPA will recalculate the mercury emissions and assign an adjusted feed rate as a permit modification. However, the current mercury feed rate was established to maintain a HI of less than .25 from total emissions of mercury from all three stacks combined and any recalculation of the feed rate will maintain that protective HI. In other words, even if an increased mercury feed rate is allowed at some future time based on a demonstration that the incinerators' air pollution control equipment removes mercury from the exhaust gases, the resulting mercury emissions would be no greater than currently allowed and remain protective of human health.

Prior Experience Evaluation/Compliance & Safety History Comments

Comments provided in 2003:

The facility and its owners (which we pointed out at the hearing are not really new) have a long and poor record of compliance, resulting in increased and unpermitted emissions of toxic chemicals. What role do the companies' previous histories play in actually receiving a permit?

There are 17 major sources in Sauget alone. There are many more across the river in St. Louis and in adjacent Madison County. That is no excuse to permit excess pollution; it is a reason to control it. And, when a company such as Onyx cannot operate in compliance, to close it.

Illinois EPA has a mandatory duty to evaluate Onyx's compliance history, including that of its officers and employees. . .The Illinois Environmental Protection Act states "[b]efore issuing any . . .permit to a. . .waste incinerator. . .the Agency shall conduct an evaluation of the prospective owner's or operator's prior experience in waste management operations." . . .We urge IEPA to move quickly to conduct such an evaluation and provide the public with an opportunity to review and respond to the evaluation.

State law requires IEPA to evaluate Onyx's prior experience in waste management before issuing a RCRA or any other permit. (Section 39i of the Act) Onyx has multiple facilities around the US where it is engaged in waste management activities. Onyx's compliance history at these other facilities is relevant and a necessary part of an evaluation as to their prior experience in waste management. . . If IEPA's evaluation does indicate corporation-wide compliance problems and demonstrate a disregard for public health laws, this would serve as an additional basis for denying these permits.

The prior ownership of the Onyx facility appears to be irrelevant in considering Onyx's compliance history despite the retention of several of the same high-ranking employees. The inability of two different owners, over two decades, to safely operate this incinerator may provide the most compelling reason to shut this facility down. The pollution problems may, in part, stem from the fact that it is inherently impossible to safely burn much of the types of hazardous waste Onyx receives. Consequently, IEPA should not ignore the incinerator's compliance problems before the incinerator changed its name.

IEPA should exercise its discretion and deny Onyx its RCRA permit based on the company's and employee/officer's repeated violations of state and federal laws and evidence of gross negligence and incompetence in handling, storage, processing, transporting and disposing of waste as provided by section 39 (i) of the Act. Onyx has repeatedly violated federal and state air and waste laws in operating this incinerator. In addition, the multiple explosions, hospitalized workers and repeated violations are all strong evidence of Onyx and its employees and officers engaging in "gross carelessness"

and "incompetence" in the handling, storage, processing, transporting and disposing of waste.

In 1990, the state prosecuted the incinerator for multiple air and waste law violations and lodged a decree in state court. In 1991, after the facility violated its 1990 agreement, the State Attorney General again commenced an enforcement action, this time settling for a $3.3 million penalty and another court order. In 1991, US EPA also imposed a modest fine of $3,380 for the illegal shipment of hazardous wastes from Bermuda. Earlier [in 2003], Attorney General Lisa Madigan prosecuted the incinerator for serious violations between 1996 and February 1998, including an explosion that rocked the facility and hospitalized a worker, and secured a $500,000 penalty. With additional violations awaiting prosecution at the Attorney General's office, IEPA obviously believes there have been additional violations of federal and state waste laws since. Finally as discussed above, the Onyx Environmental Services Corporation operates at least twelve other facilities in the United States, over half are identified by US EPA as having Significant Non-Compliance problems. For these reasons IEPA must deny the permit.

Most of the violations demonstrate "gross carelessness" and "incompetence" in the handling, storing and disposing of waste. For example, between 1999 and 2002, there were at least ten surge (explosion) events resulting in the release of clouds of poisonous gases. When the same problem occurs multiple times it is strong evidence of gross carelessness. Moreover, the inability of the facility to comply with its permit conditions repeatedly over the past two decades, including the past two years of Significant Non-Compliance, highlights either "gross carelessness" or "incompetence." On either basis, this facility should be shut down.

In short, IEPA is required to assess the compliance history prior to granting Onyx either a RCRA or Title V permit. After completing such an evaluation the agency then has the discretion based on the pattern and type of compliance problems, to deny such permits. If the agency fails to shut down this facility, it must explain to the people of Illinois the threshold that it determines warrants denying a permit and concluding that a company had relinquished its privilege to operate in this state. On these facts, we believe it would be arbitrary and capricious to not deny Onyx a permit.

The key consideration regarding this facility is whether or not public health and the environment are adequately protected. If the facility can do so, but does not, it should be shut down. If it cannot do so it should also be shut down. Further, if it does not operate without undue risk to facility personnel, it should be shut down.
There is no indication IEPA takes the continued problems at the facility into consideration, at either the inspection and enforcement level, or in the permit itself. Given its resources, perhaps IEPA is unable to deal with Onyx in an authoritative manner.

Comments provided in 2003:

Onyx has basically been in significant noncompliance since 1991, with dozens of ongoing violations. How many quarters does the facility have to be in significant non-compliance before there is some action?

Onyx has a history of accidents and explosions and injured workers. (We also hear reports of suspicious midnight shipments, unreported fugitive emissions and explosions, although we have no way of documenting or verifying those reports. We ask the agencies to investigate.)

The facility has a history of problems with record-keeping and reliable reporting. In order to assure accurate records, the agencies need to include enhanced monitoring and reporting requirements in the permit–if they do not close the plant. There is no indication IEPA takes the continued problems at the facility into consideration, at either the inspection and enforcement level, or in the permit itself. Given its resources, perhaps IEPA is unable to deal with Onyx in an authoritative manner.

Comment submitted on the 2008 draft permit:

As we previously indicated, there is a history of noncompliance at this facility (see our Title V and NIC comments). It is currently in violation of its air, water and RCRA permits. (Enforcement and Compliance History Online database http://www.epa-echo.gov/cgi-bin/get1cReport.cgi?tool=echo&IDNumber=110000438893)
We are learning that there are many other Veolia-owned entities across the country that appear also to have problems. We are concerned about a corporate ethic regarding compliance with the law and hope you will investigate further and consider incorporating your findings into your decision about this permit.
http://www.ipcb.state.il.us/COOL/external/CaseView2.asp?referer=Todays&case=13536
(Administrative citation filed against Veolia Davis Junction Landfill, Davis Junction, Illinois)

Response: Related concepts are introduced in these comments: the prior waste management operation experience of individuals in decision-making positions at the facility and in the corporation, concerns over the facility's permit compliance history, and how that history impacts the agencies' permit decision-making process.

Section 39(i) of Illinois' Environmental Protection Act (415 ILCS 5/39(i)) requires the Agency to "conduct an evaluation of the prospective owner's or operator's prior experience in waste management operations" before issuing any RCRA permit or other waste management permit. Under Section 39(i), the Agency may deny the permit if the prospective owner or operator or any employee or officer of the prospective owner or operator has a history of: 1) repeated violations of federal, state or local regulations, laws, standards or ordinances in the area of waste management facility operation; 2) conviction of any crime which in Illinois is a felony or conviction for any of a list of specific crimes; or 3) proof of gross carelessness or incompetence

in waste management processes. As a result of the statutory language and Pollution Control Board or court cases interpreting the language, it is clear that the Agency may consider only adjudicated matters in which the object of allegations concerning any of the three categories has received notice of the allegations and an opportunity for a trial or evidentiary hearing. Unadjudicated allegations by the Agency, the U.S. EPA, or any other party (e.g., violation notices, pending enforcement actions, and so forth) may not be considered. Consent orders resolving enforcement actions constitute a grey area. The Agency's interpretation is that consent orders must be evaluated on a case-by-case basis to determine if they may be considered in a Section 39(i) review.

It is also clear that the review is owner/operator-specific and not facility-specific. Therefore, the Agency may consider the record of the owners, operators, officers and employees at other facilities as well as at the facility for which the permit application is pending. Section 39(i) does not set forth any procedures that must be followed by the Agency when conducting such investigations. Therefore, the scope of the investigation is within the Agency's discretion. In addition, the Agency has the discretion to evaluate any exacerbating or mitigating factors (e.g., number, recency, severity of violations) and to determine how much weight will be given to each in making its Section 39(i) determination. With regard to the first and third of the Section 39(i) factors, the Agency generally is considering whether there is a pattern of adjudicated violations that is sufficient in number and severity to demonstrate intentional or careless disregard for the legal requirements for operating a waste management facility and that has continued more or less unabated to the time of the permit application and review.

Allegations in the U.S. EPA's Enforcement & Compliance History Online (ECHO) database do not, without further investigation as to their final resolution, qualify for use in Section 39(i) investigations. The ECHO database from which many of the issues cited in these comments originate, is found at the following link: http://www.epa-echo.gov/echo/index.html For any individual facility, the RCRA Compliance Status table lists the first category as "Facility Level Status." In this category, a facility can be "In Violation" ("In Viol") or in "Significant Non-Compliance" ("SNC") depending on the severity of the compliance problem. Violation, noncompliance, significant noncompliance, and high priority violation are all terms used by the ECHO database to describe the facility status in regard to the compliance process. These terms reflect determinations made by EPA or states when conducting inspections or reviewing facility self-reports. These determinations may assist the government in tracking resolution of alleged violations through the inspection and enforcement process, but they do not necessarily represent a final adjudication by a judicial or administrative body that may be reviewed under Section 39(i).

In October of 2008, the ECHO database listed the Veolia facility as "In Viol" (the less-severe compliance category) for seven of the previous twelve calendar quarters; 16 of the violations were resolved in October of 2006; the nine remaining violations, most of them concerning financial requirements, were found in a financial record review on June 13, 2008 and were resolved as of mid-November, 2008. Typically, violations of financial assurance requirements

do not impact the ability of a facility to implement the permit requirements governing the day-to-day hazardous waste operations on site. The permit's operational requirements are those that ensure the protection of human health and the environment on an ongoing basis. Moreover, these were alleged violations resolved without formal enforcement actions and final adjudication. As of mid-November 2009, the facility was listed as "In Viol" for three of the last twelve quarters. These were the same alleged violations resolved as of mid-November 2008. No new RCRA violations have been alleged since June 2008.

Even when alleged violations are not resolved informally and proceed to civil administrative or judicial enforcement actions, these often result in a settlement, an agreed upon resolution to the enforcement case. Settlements in civil administrative actions are often in the form of Consent Agreements/Final Orders. Settlements in civil judicial actions are generally embodied in consent orders or decrees, signed by all parties to the action and filed in the appropriate court. In the settlements, the regulator often requires injunctive relief (actions needed to return to compliance and correct environmental damage) and the payment of penalties. In the past, these consent orders did not require the defendant/respondent to admit wrongdoing even if agreeing to pay a penalty and change behavior. Recently, some state of Illinois consent orders have expressly provided that the orders may be used for making Section 39(i) determinations on permits for those facilities. The most recent consent orders for the facility, entered in 2003 and 2005, expressly provided that they could be used to make Section 39(i) determinations.

In reviewing the operating history of the facility, the Agency reviewed: 1) the Section 39(i) certification forms for individuals and legal entities that are part of permit applications; 2) the Agency's records of enforcement actions and administrative citations for the facility; 3) the ECHO database including a listing of formal environmental enforcement actions filed against the facility by the state or federal authorities in the previous five years and any penalties; and 4) the ECHO database and the database of the Texas Commission on Environmental Quality for Veolia's other U.S.-located hazardous waste incinerator in Port Arthur, Texas. Based on these sources, it was determined that two consent orders from the State of Illinois enforcement actions were appropriate for consideration for permit denial under Section 39(i):

* *People v. Chemical Waste Management*, 98-CH-365 (July 9, 2003) (entered by the St. Clair County Circuit Court);

* *People v. Onyx Environmental Services, L.L.C.*, 05-MR-280 (November 8, 2005) (entered by the St. Clair County Circuit Court).

Both orders contain language expressly providing for their use as evidence of a past adjudication of violation of the Act (or implementing rules) for purposes of Section 39(i). Three consent orders from state enforcement actions were deemed inappropriate for Section 39(i) consideration:

* *People v. Chemical Waste Management, Inc.*, 90-MR-34 (February 16, 1990) (entered by the St. Clair County Circuit Court);

* *People v. Chemical Waste Management, Inc.*, 91-CH-529 (December 23, 1991) (entered by the St. Clair County Circuit Court);
* *People v. Chemical Waste Management, Inc.*, 93-CH-264 and 91-CH-529 (June 1, 1995) (entered by the St. Clair County Circuit Court).

None of these orders may be used for a Section 39(i) investigation because each contains express language that it does not constitute an admission of a violation of law or regulation and/or otherwise limits the document to uses that do not include investigations under Section 39(i).

The U.S. EPA's ECHO database for the Sauget facility showed no state or federal environmental enforcement actions filed against the facility dating back to late 2005, the action resulting in the 2005 consent order. Similarly, the ECHO database and the Texas database revealed six agreed orders resulting from formal enforcement actions filed against the facility since September 1998. All actions were filed by the State of Texas. The six orders were as follows:

* *In the Matter of an Enforcement Action Concerning Onyx Environmental Services, L.L.C.*, TCEQ Docket No. 2002-0630-MLM-E (August 20, 2003);

* *In the Matter of an Enforcement Action Concerning Onyx Environmental Services, L.L.C.*, TCEQ Docket No. 2005-0039-IHW-E (November 9, 2005);

* *In the Matter of an Enforcement Action Concerning Onyx Environmental Services, L.L.C.*, TCEQ Docket No. 2004-1438-MLM-E (March 8, 2006);

* *In the Matter of an Enforcement Action Concerning Veolia ES Technical Solutions, L.L.C.*, TCEQ Docket No. 2007-1936-IWD-E (October 8, 2008);

* *In the Matter of an Enforcement Action Concerning Veolia ES Technical Solutions, L.L.C.*, TCEQ Docket No. 2008-0270-IHW-E (May 6, 2009);

* *In the Matter of an Enforcement Action Concerning Veolia ES Technical Solutions, L.L.C.*, TCEQ Docket No. 2006-0455-IHW-E (July 6, 2009).

None of these orders may be used for a Section 39(i) investigation. All but the fourth contain express language that they do not constitute an admission of the alleged violations or a violation of any statute or rule. The fourth contains findings of fact and conclusions of law that appear to confirm violations of wastewater discharge effluent limitations. However, the order, by its terms, is limited to use in certain civil proceedings brought by the Texas Office of the Attorney General.

To summarize, the last incident at the Sauget facility for which there is an adjudicated violation that may be considered under Section 39(i) occurred in March 2002. That violation was included in the complaint filed in October 2005 and the consent order issued in November 2005. No formal enforcement actions have been filed against the Sauget facility since that time.

The Illinois EPA conducted its Section 39(i) review by reviewing and evaluating the 39(i) certification forms provided by the facility, the facility's recent compliance record, the applicable consent orders cited above, and other information submitted by the applicant (including the permit application) and by the general public. Although the facility has a history of alleged compliance issues, including those that may be considered in a Section 39(i) review, the pattern of the 1990's through 2002 has not continued to the present. Since 2002, the allegations of non-compliance with RCRA requirements have diminished significantly in number and severity. This review found that the facility could operate without future violations of the RCRA permit and applicable RCRA regulations because the applicant's operations, equipment and emissions can consistently meet the state's standards, and the incineration facility has made changes and refinements to its operations to correct past noncompliance and is capable of operating in compliance in the future. Consequently the renewal permit was not denied based on the findings of the Section 39(i) review.

In addition to the Section 39(i) discussion above, it is also important to note that the review of a permit application and permit decision-making is entirely independent of the enforcement process; denial of the permit cannot be used as an enforcement measure or to leverage compliance. In 1993, a Third District Appellate Court decision [*EPA v. Pollution Control Bd.*, 624 N.E.2d 402 (Ill. App. 3 Dist. 1993)] held that the Agency cannot hold permits hostage to gain compliance in another area of facility operations, nor to gain an advantage in enforcement actions; the permit application must stand or fall on its own merits.

During permitting, the Agency must base its decision whether to prepare a draft permit and issue a final permit on the application provided by the applicant and the applicable laws and regulations including the Section 39(i) review of prior adjudicated violations. The Agency must review a permit application and determine whether the application provides information that the applicant's operations, equipment, discharge or emissions can consistently meet the state's standards. As discussed elsewhere in this document, the incineration facility has made changes and refinements to its operations to correct past noncompliance and is capable of operating in compliance in the future. No permit can assure that the facility's operation will always comply with the Act and/or the applicable regulations. The Agencies can, at best, prepare a permit clearly providing the regulatory framework and instruction to the facility and, via special conditions, provide site specific information on how to comply with the Act and regulations. Inspection and enforcement activities, separate from the permit issuance process, must provide the incentive for compliance with the permit conditions.

As one comment noted, the facility has had emissions exceedences and explosions in the past; another comment claims there is no indication the Illinois EPA takes problems at the facility into consideration at any level. Potential permit violations at every facility are investigated and,

where necessary, enforcement procedures are implemented in accordance with Title VIII of the Environmental Protection Act. These enforcement procedures are independent of the permit process. There were five formal enforcement actions against the Chemical Waste Management/Onyx facility between 1990 and 2005 for violations occurring as late as 2002. Other alleged violations have been handled informally, which the Illinois EPA attempts to do in all but the rarest of cases. Each enforcement situation was dealt with on a case-by-case basis via consent order or other settlement with the company and, where appropriate, modifications have been made to the RCRA permit or to the facility's standard operating procedures to avoid a recurrence.

With regard to after-hours delivery of wastes, the facility operates 24 hours/day. Receipt of waste usually occurs between 6 a.m. and 5 p.m., Monday through Friday. Trucks may be accepted at other times if the need arises rather than have them parked in the unsecured parking lot or on the approach road. Incinerator emissions are continuously monitored. The permittee is required to provide real-time computer access to the operation and monitoring of the incinerators for all compliance data concerning the operating limits and automatic waste feed cut-off requirements. The permittee must also provide continuous video surveillance to document whether there have been any fugitive emissions from the combustion zone of the incinerators, the emergency caps, or surge vents.

2003 Comments from Illinois' Office of Attorney General (AGO):

Since the inception of operations at the TWI facility, the Attorney General has prosecuted a number of enforcement actions under the Illinois Environmental Protection Act, at the request of the Illinois Environmental Protection Agency, against the operator of the facility. Currently there are two referrals pending against the current operator, Onyx Environmental Services, Inc., for violations that have occurred since its assumption of responsibility for the facility. It does not appear that the proposed permits have properly taken this enforcement history in to consideration in determining whether the permits should be issued and, if so, what additional conditions are necessary to assure future compliance...

The incident reports filed by the current and former operators over the years have...identified a number of actions that must be taken to assure that the underlying violations will not be repeated in the future. The operators have sought to incorporate many of these actions into the applicable permits through applications to modify the permit. The proposed permits must be reviewed to assure that all of these necessary actions are included as necessary permit conditions.

The incident reports filed by the current operator identified the following measures as necessary to prevent future violations:

1) *To prevent exceedences of the kiln pressure limit and visible emissions, the operator must repackage potassium superoxide from oxygen breathing apparatus canisters in plastic bags and enclosed fiber drums prior to charging.*

2) *In response to an October 1, 2001, release of triethylborane which resulted in a fire at the No. 2 Incinerator, the operator determined that it must develop a system for purchasing, inspecting, installing, and maintaining hoses and hose bands for use on the injector systems and to install a remotely operated fire protection system in the feeder areas.*

The October 1, 2001 Incident raised another significant issue. The fire resulting from the triethylborane release spread from the Unit No. 2 Incinerator into the Specialty Feeder Building as a result of modifications made by the operator which compromised the fire containment capability of the wall between the Incinerator and the Specialty Feeder Building. Approval for this alteration through the required permit modification process had been neither sought nor obtained. Accordingly, the modification was performed in a manner which did not maintain the fire containment capability of the wall.
The facility must be audited to identify all other unpermitted modifications so that they may be assessed to determine whether other safeguards have been undermined and what corrective measures must be employed to eliminate these existing threats to public health and safety and the environment.

In light of the discussion above regarding modification of the facility, the third sentence of RCRA Permit Section I.B.2 should be revised to restrict the exemption from prior Illinois EPA approval is limited to those changes in structural or foundation design that will not increase the possibility of fire, explosion, or any unplanned sudden or nonsudden release of hazardous waste constituents.

The past enforcement history also establishes the facility has difficulty handling certain wastes without incident. These wastes include lithium batteries and aerosol cans. The operator must demonstrate that it has revised its operating procedures to assure that similar incidents do not reoccur.

Response: The regulations and the permit require the facility to apply to the Illinois EPA or U.S. EPA and obtain Agency approval prior to implementing any changes more significant than a Class 1 modification to the design or operation of the facility. The permit also requires the operator to report any noncompliance with the permit conditions. These reporting requirements would apply to any unauthorized facility modifications.

Modifications are reviewed when a permittee submits a permit application. As part of that review the Agency reviews records and the facility operators' prior experience in waste management operations. Enforcement proceeds independently from the review and modification of the permit. In some instances, permit modifications are not necessary to bring a permittee in compliance with the permit and regulations because the permittee did not comply with their existing permit conditions. The Illinois EPA and U.S. EPA have determined that a permit could be issued to Veolia with conditions and the operator could operate in compliance with the RCRA regulations. As a result of some of the incidents mentioned in the Illinois Attorney General's

Office (AGO) comments, changes were made in the application, the facility's standard operating procedures, or the permit conditions.

Throughout the life of the incineration facility, 90 permit modifications have been authorized including many necessary to correct or prevent violations due to the facility's design or operating procedures. These modifications are incorporated into this final RCRA permit. Changes to the Waste Analysis Plan and operating procedures to address the lithium batteries, aerosol cans and potassium superoxide feed issues were made but did not require modification to the permit. The 2005 Consent Order [Section E., III. *Compliance Activities to Date* (pp.13-14)] specifically addresses these issues:

> Section III.E.2. states: "Onyx has amended its Waste Analysis Plan and charging procedures as follows:"
>
> Section III.E.2.b. states: "Based upon the test burn conducted upon the Lithium Batteries involved in the August 29, 1999, incident, a revised charge limit has been set and incineration of such batteries shall not exceed that charge limit."
>
> Section III.E.2.e. states: "Oxygen breathing apparatus canisters containing larger quantities of Potassium Superoxide shall be charged in enclosed fiber drums rather than charge boxes."
>
> Section III.E.2.f. states: " All aerosol cans containing highly volatile material shall be charged to Unit No. 4."

In response to an October 1, 2001, release of triethylborane which resulted in a fire at the No. 2 Incinerator, Veolia no longer installs hose bands on the Unit 2 specialty feeder chemical hoses. The facility purchases these chemical hoses with hose bands already installed by the manufacturer. These hoses are pressure tested and certified by the manufacturer.

As another requirement of the 2005 Consent Order, the facility was required to hire an independent engineer to perform a review of structural modifications made to the facility since January 1, 1999. That review evaluated whether the changes made undermined the ability of the affected structures or equipment to limit the spread of fire and/or hazardous substances and what measures must be implemented to restore that capability. That Consent Order also required the facility to submit any necessary permit modification applications to implement measures to restore fire and waste control capability. That evaluation was submitted in May 2006 and indicated that one modification request had been made for Tank Farm 1 (several carbon steel tanks were replaced by the same sized stainless steel tanks, ie. no change to the design, capacity, or function of the tanks occurred). Fire suppression equipment has also been upgraded, but since they were upgrades no permit modifications were required. The Fire Marshal also reviews changes to the fire suppression system.

RCRA inspections determine if the facility is operated and maintained in accordance with the permit. The semi-annual RCRA inspections by Illinois EPA's inspector also serve as facility audits to identify any substantial unauthorized modifications to the facility so that these changes can be assessed to determine whether safeguards have been undermined and what corrective measures must be employed to eliminate any threats to public health, safety, and the environment.

In order to identify changes at the facility that do not require a permit modification, Section I.B.2 of the permit has been clarified by adding language to restrict the exemption from prior Illinois EPA approval of certain facility changes. The exemption is now limited to those changes in structural or foundation design that will not increase the possibility of fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste constituents. This language allows flexibility in structural design since certain structural details are not final or may be modified during construction as directed by the structural design engineer. The review of structural design is accomplished through building codes, inspections and building permits, not through the facility's environmental permits. This flexibility has been limited to ensure that the types of modifications subject to Agency review are not made without Agency approval.

Public Involvement Comments

Comment provided in 2003:

We are uncertain if we have a copy of the current RCRA draft permit or whether it is a previous one. It is not dated and it is not provided on the IEPA website. Therefore, we are unable to comment.

Response: The Agency apologizes for any confusion the lack of a date on the 2003 draft RCRA permit may have caused. Agency staff made copies of the signed draft permit and sent them to the repositories apparently before the signature date was typed on it. At that time there had been only one draft RCRA permit prepared and placed in the local information repository. Commenters with any questions concerning the draft permit documents are advised to contact the Agency at any time for clarification. Contact information is contained in the public notice and in the repository documents available at the Cahokia Public Library. Agency staff were also available at the 2003 public hearing to identify the correct set of documents.

The draft permit of 2003 could not be placed on the Agency's website in 2003 because of logistical problems with pieces of the document; portions of the document would have had to be scanned into the computer resulting in poor quality electronic image files. Another, more important logistical problem with placing draft permits on the website remains to this day; draft RCRA permits are best read in conjunction with the permit application. The application becomes part of the permit in that the permit and its conditions are based, not only on the regulations, but also on the information provided in the application. Due to the inherent difficulties of reviewing large documents with large format figures such as maps and plan sheets on the computer screen, at this time the Agency is not requiring applicants to submit their RCRA

applications in electronic formats. Consequently, the applications are not being made available to the public electronically, nor are the draft permits posted to the Agency website.

Reviewers in the community were provided with a local information repository at the Cahokia Public Library; Springfield and Chicago-area reviewers could access those same documents at the Illinois EPA headquarters office in Springfield or U.S. EPA's offices in downtown Chicago during both the 2003 and 2008 comment periods on the respective draft permits.

Comments provided in 2003:

In 2000, the Illinois EPA and USEPA performed a multimedia inspection of the Onyx facility. The air and RCRA inspectors spent four days investigating that facility in 2000. Where is the USEPA's report? It's not in the records, we requested it and it was denied, saying it was enforcement sensitive. That was three years ago. Why have we not been given access to those records?

We have not been provided the documents requested from U.S. EPA at the public hearing and are therefore unable to comment on them. We were told we would be supplied with the results of the risk assessment. We have not received it.

Response: Based on a review of the 2003 hearing transcript, there seems to have been some confusion about what documents had been requested (the requester said she would make a FOIA request for the multimedia inspection report but at another point asks directly for a copy; a copy of the risk assessment was not specifically requested although its availability was discussed and an offer made by U.S. EPA staff to provide it. U.S. EPA staff have further investigated and found that the multi-media inspection report has not been finalized and is therefore still unavailable.) The Agencies apologize for this confusion; in future, please always make any requests for agency documents through the Freedom of Information Act request process to ensure your request is properly addressed.

Nevertheless, during the subsequent 2008 public involvement process for the redrafted renewal permit, all of U.S. EPA's risk assessment documents were provided to the information repository on a CD and placed in the binder that held the Agencies' draft permits. In addition, the risk assessment documents have been attached to this Response Summary for ease of current access.

Comments submitted on the 2008 draft permit:

American Bottom Conservancy and Sierra Club submit these additional comments on the ... RCRA permit(s). We have members who live and work in the area near the Veolia hazardous waste incinerator in Sauget. We strongly urge you to deny a RCRA permit to Veolia Environmental Services. Veolia (formerly Trade Waste Incineration or Onyx) has never demonstrated that it can operate in compliance and has a history of fires, explosions and illegal releases. They are currently in violation of their RCRA, air and NPDES permits. We are attaching a letter we wrote to Veolia in response to its Notice of

Intent to Comply (NIC), which is required by MACT standards for hazardous waste combustors.

We also believe there are additional risks to the public from the emissions from this facility, but we have been unable to obtain a copy of the Risk Assessment in order to comment further.

We have not had access to the files and the record as referenced in the Public Notice. We repeatedly asked for an electronic version of the 2003 permit but were told that one did not exist. We also asked for a copy of the Risk Assessment Study and were told that IEPA did not have a copy. We hope that EPA will provide one to them as well as us.

I visited the Cahokia Public Library on Thursday, September 18, expecting to see the Risk Assessment and other documents there. I was shown the CD of the Veolia Title V documents that I had requested US EPA (Genevieve Damico) to send to the library. The librarian and I searched for the RCRA documents. They were not there. There were Solutia IEPA documents and many documents associated with the Sauget Area 1 Superfund site, but no Veolia RCRA documents.

Sierra Club and ABC attempted to retain two different consultants to prepare comments for us as we did not have the technical expertise to review these permits and prepare comments. Each consultant asked for a pdf file of the 2003 draft permit, the Risk Assessment and other associated documents and permits. One said that he needed to see the permits in order to be able to make comments.... Neither would prepare comments for us without the previous permit and related documents. The Attachments in the 2008 permit indicate why the 2003 permit was needed. Changes to the 2008 permit are referenced back to the 2003 permit. If one does not have the first, one cannot see what the permit said, what was changed or removed and whether it was appropriate to change or remove it. Therefore, the public has been essentially denied the ability to submit informed public comment.

I did finally receive a paper copy of the 2003 permit, but not an electronic version. The document is quite large and would be very expensive to copy and/or scan. We are not-for-profits and should not have to bear that expense. There were other citizens locally in addition to the consultants who asked for a copy. Surely there is a scanner in the Illinois EPA building. If not, EPA should have sent the permit to a local copy store to be scanned and supplied us with electronic versions.

We urge you to make all the relevant permits and documents electronically available to the public.

Response: The Veolia draft RCRA permit repository materials were provided to the Cahokia Public Library at the start of the 2008 public comment period and remained at the library, as best

the Illinois EPA can discover, throughout the comment period. This strategy of making the critical permit documents available locally is the Agency's attempt to accommodate the need for information in the concerned community. (Please see the response to the first comment in this section concerning imaging of documents.)

These repository materials included paper copies of the application, the 2008 draft permit (Illinois EPA's portion and U.S. EPA's portion) with the list of the changes to the draft permit from the 2003 draft to the 2008 re-draft, and a few of the mercury risk assessment documents that were particularly succinct and relevant to the new permit conditions. In addition, U.S. EPA had provided to the library a CD of the federal RCRA permit's Administrative Record containing all 10,000+ pages of the documents relevant to the U.S. EPA's draft permit decision, including all risk assessment documents. On August 4, this commenter was told that the risk assessment memo she wanted to review was available at the library or directly from Illinois EPA via mail or fax although an attempt was also being made to locate and transmit an electronic file.

At the request of this same commenter, Illinois EPA e-mailed her an electronic copy of the 2008 draft permit on August 6. Subsequently, on August 26, she also requested the previous, 2003 draft permit be sent to her. Illinois EPA mailed out a paper copy of the 2003 draft permit to her August 29. In response to an e-mail notifying her that it was placed in the mail on the 29th, the commenter wrote, "Isn't it available electronically?" She anticipated receiving the paper copy of the 2003 draft permit on September 2. No request was made to provide additional copies to other reviewers nor mention made that only an electronic copy would suffice.

On September 12, this commenter was sent an e-mail reminder of the end of the comment period being midnight the following Monday. On Monday, September 15, the last day of the originally scheduled comment period, she requested an extension of 21 days to submit comments on behalf of American Bottom Conservancy and Sierra Club. In a subsequent telephone call, she mentioned not being able to provide copies of the 2003 draft permit directly to those she wanted to review the documents. Illinois EPA staff volunteered to send paper copies of the original 2003 draft permit directly to the reviewers but she did not provide their names and mailing addresses even in response to a reminder e-mail sent to her later on September 15.

It was based on the short timeframe for comparison of the 2 draft permits that this commenter had requested additional time to provide comments and the reason for which Illinois EPA extended the comment period by 10 days (from September 15 to 25). Several complaints were lodged on Friday, September 19, 2008--4 days after the close of the comment period for all but Sierra Club and American Bottom Conservancy—stating close variations of, "It is my understanding that a copy of the proposal is to be on file at this library, but I was informed that it could not be located."

The following Monday, Illinois EPA was able to verify that the repository materials were, in fact, still at the library although the librarian on duty on September 18, when a single patron had been looking for the documents, had been unfamiliar with them and where they were shelved.

Having no information who the patron searching for the documents had been, Illinois EPA could not contact that person to direct him/her to the materials via the library's director.

It is clear from these comments that this library patron was the same commenter who had requested and received her own copies of both the 2003 draft and 2008 re-draft of the permit during the comment period, yet did not contact the Agency to indicate the repository materials could not be located on September 18.

Comments submitted on the 2008 draft permit:

> *Before going to the Cahokia Public Library on September 18, I attended the monthly East-West Gateway Air Quality Committee meeting in St. Louis. The AQAC is a committee of agencies and other entities, including EPA, Missouri Department of Natural Resources, Illinois EPA and the City of St. Louis, dealing with air quality in the bi-state region. I reported on the Veolia RCRA permit comment availability at the meeting... After the meeting, the manager of the St. Louis Air Pollution Control program asked me about the permit and the documents. I sent him an electronic copy of the 2008 permit and told him the documents referenced in the public notice were not at the library. It is my understanding he asked for copies of the documents and an extension of the public comment period. It is also my understanding that he was told that the City of St. Louis couldn't submit any public comment, because the extension of the comment deadline only applied to Sierra Club and ABC. This is unacceptable. We share the same airshed and regional air quality area with Missouri and St. Louis. We work cooperatively with the hopes of someday reaching attainment of federal air quality standards for both ozone and fine particulates.*

Response: The Chief of Permitting, St. Louis Air Pollution Control, Dept. of Public Safety, 1415 North Thirteenth Street, St. Louis, MO 63106 was sent the public notice at the beginning of the comment period for this draft permit and the previous 2003 draft permit. The notices were not returned therefore we assume they were received by the addressee yet resulted in no participation of this St. Louis city agency during either draft permit's comment period.

By the close of the comment period, RCRA regulations require that commenters must raise all reasonably ascertainable issues and submit all reasonably available arguments and factual grounds supporting their position that a condition or the entire draft permit is inappropriate. Illinois EPA's RCRA regulations provide that comment periods be extended by an appropriate time if a commenter demonstrates that the additional time is necessary to submit "supporting materials." Supporting materials supplement those "reasonably ascertainable issues and reasonably available arguments and factual grounds" supporting their position that a condition or the entire draft permit is inappropriate. Requests for a comment period extension which came in several days after the close of the comment period and were made with no prior review of the draft permit, are clearly not an effort to supplement comments with supporting materials and consequently, do not meet the extension criteria.

The St. Louis Air Pollution Control staffer who requested an extension of the comment period 4 days after it closed, was told that the repository materials were still available for review at the Cahokia Public Library and that comments from the two environmental groups would be accepted through September 25.

Comment provided in 2003:

The hearing hall had very poor acoustics and the audience had a very difficult time hearing the presenters and each other during the question and comment period.

Response: The Agency realizes the facilities were not optimal for a public hearing. The joint CAAPP and RCRA permit hearing had originally been scheduled for a smaller, air-conditioned meeting space with excellent acoustics in the Cahokia Village Hall. It soon became clear from the response to the public notice that the reserved space would probably not accommodate the expected audience. Since the Illinois EPA had promised U.S. EPA a final decision on the CAAPP permit prior to the end of the year, a postponement of the joint hearing in order to find and schedule a larger space yet still allow a 45-day notice prior to the scheduled hearing date, would have cut into the time available for the post-hearing comment period and Agency consideration of comments on the CAAPP permit. In the interest of accommodating the larger crowd yet not delaying the hearing, the Agency moved the hearing location to the alternate space at the Village Hall. In an effort to assist commenters who had difficulties hearing the presenters and other speakers, the hearing transcript was posted to the Illinois EPA website as soon as it became available.

Comments provided in 2003:

The people who have tried to read these permits have run unto a lot of jargon. There are many ways to summarize technical information and put it into plain English; that would make a world of difference to those who are trying to understand the permits. No materials were provided to the hearing audience so that the layman could better understand the terms and the complex permitting and regulatory issues and processes.

Hearing attendees were not familiar with the long history of violations of the Clean Air Act by Onyx nor the fines that have been imposed by the IEPA over the years for non-compliance with their permits.

It would be helpful to have a chart that shows the testing schedule for the facility and who performs each and which regulator oversees the testing. This would eliminate a lot of confusion. It would be most useful if it can be placed on the Web; if it cannot, please let us know where it is available.

Response: A project summary of the CAAPP permit and the technical fact sheet for the RCRA permit were both available at the hearing registration table. These documents were designed to give the layman a sense of the controls each of the permits provide but, due to their brevity, they are not greatly detailed. A novice to these environmental permit programs is advised to consult

the U.S. EPA's web site to learn more about these programs and to visit the information repositories to review the applications and draft permits prior to the hearing. A public hearing is designed to accept public comment and, if possible, answer questions to clarify terms of the permit(s). It is not designed for the audience to learn the full scope of the permit(s) and the regulatory framework that supports the permitting process.

The primary purpose of the hearing is to accept public comments on technical issues concerning the draft permit(s). A facility's compliance history is relevant to the modification or renewal of a permit (please see the response to the first set of comments under the Prior Experience Evaluation/Compliance & Safety History section above). The Illinois Attorney General's Office has made recommendations for additional permit conditions to remedy existing/outstanding violations (please see the response to the second set of comments under the Prior Experience Evaluation/Compliance & Safety History section above) consequently the existing condition at Section I.B.2 of the renewed permit has been clarified.

Veolia must perform regularly scheduled inspections of the facility; the inspection schedules for various units may be daily, weekly, monthly or annually depending on the unit. These inspection schedules and any testing required are prescribed in the different sections of the permit dealing with the particular unit. Regulator (Illinois EPA and/or U.S. EPA) inspections of the facility are scheduled by the appropriate agency inspector and may include field testing of various kinds, but typically, testing of the incinerator units is scheduled many months in advance, sophisticated equipment and additional technicians are employed, and the tests are carefully designed to provide specific information about emissions or some other aspect of the incinerators' operations.

The plans for these periodic "test burns" are reviewed and approved by either or both agencies and often the actual test burn is attended by representatives of one or both agencies. The most recent test burn at the Veolia facility was held in August of 2008 to demonstrate compliance with the MACT standards under the CAAPP permit. The next test burn is tentatively scheduled for December 2009 also under the CAAPP permit. The frequency of stack testing is not specified in the RCRA regulations but is negotiated with the permittee based on the potential for waste feed or equipment changes. Incinerator emissions testing is largely done as a function of the requirements of the CAAPP permit. The RCRA regulations allow facilities in compliance with the MACT emissions to modify their permits so that emissions are regulated solely under the CAAP permit instead of both the CAAPP and RCRA permits. If that occurs, test burns may be conducted solely under the CAAPP in the future. Please contact the U.S. EPA for further information concerning the schedule for incinerator unit emissions testing.

Miscellaneous Comments

Comments provided in 2003:

What are the applicable requirements for ash handling, handling of spent dry scrubber solids and lime? Waste from the facility is being sent to Milam Landfill, a landfill just

north of East St. Louis, built in wetlands in the 100-year floodplain without a liner. We ask EPA to look into what is happening to the waste sent to Falling Star in St. Louis and to Michigan. Is any hazardous sludge being spread on farm fields? We are extremely concerned about the disposal of the sludge. In addition to contamination of the land and groundwater, are there not fugitive emissions associated with the process? That is not addressed in the permit.

Response: The RCRA permit requires the facility operator to determine if the ash is a hazardous waste, performing chemical analysis on the ash when necessary, and to transport all outgoing waste to a properly permitted facility using the Illinois EPA's special waste hauling permit and manifest system. Milam Landfill is a properly permitted disposal facility that may accept non-hazardous special waste from any facility, including pollution control waste such as bottom ash and fine particulates caught by the air pollution control equipment from the incineration facility. The landfill's permit requires the landfill operators to ensure that the waste they accept is waste they are permitted to dispose. The landfill operators may require additional chemical analysis of the waste from the generator facility, Veolia. The out-of-state disposal of waste is subject to the rules and monitoring of the receiving state, however, improper disposal would result in a violation of Veolia's RCRA permit.

Comment provided in 2003:

We believe that the provisions in the RCRA permit should be in the CAAPP permit. A Title V permit must have ALL applicable regulations incorporated into one document.

Response: This Response Summary addresses only those comments relevant to the RCRA permit and RCRA program requirements are not enforceable through the CAAPP permit. However, the 2008 CAAPP permit, issued by U.S. EPA for this facility, has the applicable Clean Air Act requirements incorporated.

The RCRA permit program allows the imposition of permit conditions beyond those required under the regulations if they are necessary to protect human health and the environment. This provision is referred to as "omnibus" authority. In this case, risk assessment indicated a need for further controls on mercury emissions from the incinerators in order to be protective of subsistence fishers in the area. Consequently, mercury feed rate limits have been incorporated into the RCRA permit under the omnibus provisions of RCRA. These feed rate limits prevent the incineration of high concentrations of mercury-bearing wastes, thereby limiting air emissions of mercury and supplementing the Clean Air Act's Title V permit, which imposes metals emissions limits based on the Maximum Achievable Control Technology (MACT) standards.

Comment provided in 2003:

Why are stack tests performed only every five years?

U.S. EPA Response: The CAAPP regulations under the MACT rules require stack testing be done once every five years. Dioxin testing has to be done once every two and a half years; the next testing for dioxins and furans will be in December 2009. In addition to this testing

schedule, there is also continuous monitoring of the operating incinerator unit(s) for various process parameters which in turn either control emissions or are indicators of the unit(s) emissions.

The frequency of stack testing is not specified in the RCRA regulations but is negotiated with the permittee based on the potential for waste feed or equipment changes. The RCRA regulations allow facilities in compliance with the MACT rules to modify their permits so that emissions are regulated solely under the CAAP permit instead of both the CAAPP and RCRA permits. If that occurs, test burns may be conducted solely under the CAAPP in the future. Please contact the U.S. EPA for further information concerning the schedule for incinerator unit emissions testing.

Comment provided in 2003:

"The company must properly maintain records of waste tracking documents (or manifests), employee training, inspection records, records of operating conditions, and any incidents, and the maintenance records of the containment systems and equipment." These records should also be available to the public.

Response: All records the permittee is required to provide to the agencies are available to the public through Freedom of Information Act requests except those deemed business confidential, trade secret, or enforcement confidential. Records of "incidents" resulting in releases to the environment, including incinerator upset conditions, are required to be provided to the Illinois EPA and may be requested through the Freedom of Information Act (FOIA) file access process. The other records cited above are records that the facility is required to maintain at the facility for the agencies' inspectors' review and are typically not submitted to the agencies. Because they are not in the agencies' files, they are not available to the public via the FOIA process. Those records would be available to the public at the discretion of the facility and only by request to the facility directly.

Comments from the 2003 hearing transcript:

"The Illinois EPA has the authority to inspect the facility at any time without advance notice." Unfortunately, the Agency does not have the resources to do so. More inspections should be unannounced. How many surprise inspections are conducted each year?

Regular inspections of Onyx's hazardous waste incinerators have not previously occurred, and with the Illinois EPA regulatory budget deficits it is difficult to see how the Onyx toxic waste incinerators will be inspected thoroughly, even with its self inspections. How will it come into compliance [if inspections are not more frequent]? Obviously compliance is not the facility's strong point and so it's not a lot of reassurance to the general public that you have a permit that is within acceptable levels because we have no assurances that they'll comply.

Response: The RCRA permitting program is a "self-implementing" program; that is the permit, which references the permit application and is developed according to the regulations, provides the rules and those subject to the rules are required to abide by them. Non-compliance with these rules has consequences; violation of the permit may result in severe penalties accompanied by additional permit controls when violations are discovered.

The regulations also provide the regulators access to the facility at any reasonable time so that the Illinois EPA and U.S. EPA representatives may make facility inspections, review records, and sample and monitor for the purposes of assuring permit compliance or as otherwise authorized by law. The facility will be inspected at least semiannually by Illinois EPA's RCRA inspector to ensure the facility's compliance with all RCRA requirements. Unannounced inspections may also be performed either prompted by an incident, a complaint, or for no particular reason. The CAAPP inspector also inspects the facility. Scheduled oversight of test burns is another opportunity for our inspectors to see the operations of the facility. These inspections and visits are conducted in addition to Veolia's customer inspections and those performed by the facility in compliance with the RCRA permit.

Comment from the 2003 hearing transcript:

> *"The company must also perform an investigation into all waste management activities, past and present, to determine if these activities have impacted the environment, (either the land or groundwater)." No reference is made to deposition to surface water from air emissions. Atmospheric deposition, especially mercury, must be included.*

Response: Prior to the RCRA Facility Investigation (RFI) described above, the Agency performs a file review study called a RCRA Facility Assessment to identify any potential areas of concern where waste may have impacted the environment. This study helps direct the facility in the subsequent RFI. Air emissions are not assessed in these RCRA investigations; soil and groundwater investigation normally begins at a known or suspected source area at the facility and extends outward until the subject contamination is no longer found; these environmental investigations may extend off-site. This strategy for directly linking contaminants in soil or groundwater to a source is not possible for air emissions. Off-site impact from air emissions is much more difficult to establish; it is difficult to identify the source of the off-site contamination since there may be several potential sources of those contaminants nearby.

Air deposition from incinerator emissions is instead addressed in modeling studies associated with air emissions permitting and risk assessment. In the case of the Veolia RCRA permitting process, U.S. EPA did perform a screening risk assessment based on air emissions modeling of contaminants that addressed metals and dioxin emissions deposition to surface water, identifying mercury emissions as the only contaminant of concern for human health. Subsequent U.S. EPA risk assessment work resulted in mercury feed rate limitations in the 2008 redraft of the RCRA permit and those conditions remain in the final, issued permit. (The risk assessment documents imaged on a CD were provided by U.S. EPA and contained in the local repository at the Cahokia

Public Library and are now also attached to this Response Summary and posted at the web page listed at the end of this document.)

Comment provided in 2003:

RCRA Permit Section IV.a.F:

Why are there two calibration frequencies? Should one column refer instead to monitoring frequency as is done in condition IV.b.F. If so, why is visual monitoring for spills, leaks, and fugitive emissions required only on a daily basis in this provision and in condition IV.b.F?

Response: The column headings were not aligned properly in the draft permit; the Agency apologizes for this formatting error. This error has been corrected in the final permit. The first column does, in fact, refer to daily visual inspection of these incinerator units.

Formal visual inspection for spills, leaks and fugitive emissions is conducted daily. These daily inspections are documented and recorded; any releases are addressed immediately as required by the facility's Contingency Plan. These daily inspections are required to ensure a thorough, detailed inspection is done on all permitted units and problems are resolved quickly. Leaks, spills and fugitive emissions discovered any other time are also addressed according to the procedures detailed in the Contingency Plan.

2003 AGO comment:

RCRA Permit Sections IV.a.I and IV.b.F:

Why are these provisions captioned "twenty-four hour reporting" when they do not require reporting within twenty-four hours and instead allow up to three days. Based upon past history, reporting should be done within twenty-four hours.

Response: RCRA regulations require the permittee to report any non-compliance that may endanger health or the environment. This report must be made orally within 24 hours after the permittee becomes aware of the circumstances. A written submission must also be provided within 5 days. Permit conditions in Sections IV.a.I and IV.b.F were modified to clarify this requirement.

Comment provided in 2003:

RCRA Permit Section X.cc.B:

What is meant by "condition !variable!"?

Response: This was a place-holder typographical error in the 2003 draft permit that was corrected in the 2008 draft permit and does not remain in the final permit.

Comment provided in 2003:

RCRA Permit Section VI Table I and Attachment E:

How do you reconcile the prohibition on acceptance of F021 and F027 wastes while authorizing acceptance of D037, F032, and K001 wastes?

Response: The waste codes D037, F032 and K001 do not necessarily contain dioxin whereas the F021 and F027 waste codes are listed specifically because they contain dioxin. Condition IV.A.4 of the permit prohibits Veolia from accepting wastes with detectable amounts of dioxins. Veolia has a dioxin screening program identified in their Waste Analysis Plan (WAP). One of the three waste codes identified as not being prohibited was identified in the WAP as a waste stream that must be screened; the other two waste codes have been added to the screening program under the terms of the final permit.

Comment provided in 2003:

As currently written, the permits will not assure that operation of this facility will not violate the Environmental Protection Act or regulations promulgated thereunder or adopted thereby. These deficiencies must be rectified before a determination of whether to issue the permits can be made.

Response: No permit can assure that the facility's operation will always comply with the Act and/or the applicable regulations. The Agencies can, at best, prepare a permit clearly providing the regulatory framework and instruction to the facility and, via special conditions, provide site specific information on how to comply with the Act and regulations.

Comment from the 2003 hearing transcript:

I'm concerned about companies walking away and leaving pollution. Companies close down and go bankrupt. What protections do we have that Onyx will not do this and will continue to be a good citizen in the community?

Response: The regulations and the RCRA permit require Veolia to develop a plan to close the facility. The plan must be implemented in accordance with an approved schedule based upon the date they last receive waste. Veolia is also required to post financial assurance documents that are backed by sufficient funds to pay for a third party to remove waste, and properly clean up and shut down the facility and site if just such a scenario should occur. That is the purpose of requiring waste management facilities to post financial assurance.

Comment from the 2003 hearing transcript:

There are approximately 16 incinerator sites in the United States. What is the distance to the closest community around those other 15 or 16 sites?

U.S. EPA Response: There are currently two other commercial hazardous waste incinerators in Region 5. According to an internet map search, both the Von Roll facility in East Liverpool, Ohio and the Ross facility in Grafton, Ohio appear to be adjacent to residences.

Comment from the 2003 hearing transcript:

I request that these various permits would be segregated and each time that Onyx or any other company decided to change their equipment or their input of fuel or the toxic waste of different processes, they would be handled as an individual permit.

Response: The CAAPP permit and the RCRA permit are separate permits however the agencies chose to hold a hearing addressing both of the permits since together they are integral to the control of the facility's operations and emissions.

Logistically, the Agencies could not function under a permitting strategy such as suggested by this comment. However, specific procedures for modification of the RCRA permit are included in the regulations. Once a permit has been issued, any changes to the permit require the facility to either provide application materials in support of significant changes proposed for their facility and to their permit for the review and approval of the Agencies, or for very minor changes, notification to the Agencies. This, very briefly, is the RCRA permit modification process.

Typically a permit issued for hazardous waste management at a commercial facility is written to contain some flexibility, especially with regard to the different waste types or categories of waste that are processed. For example, categories of acceptable wastes to be managed by that facility are listed in the RCRA permit and, for an incinerator facility, limitations on the waste feed may be established to address air emissions.

Certain other aspects of the permit are more rigid and permit modifications must be obtained before the operator may change specifications for the equipment identified in the permit application, operational procedures or the procedures for identifying and managing wastes. This process ensures that the Agency will be consulted for any necessary approval of changes the facility wishes to put in place.

Comments provided in 2003:

Since this facility is burning hazardous and toxic waste, is it going to be a target for terrorism?

What, if anything, in the permit requires Onyx to have a plan of action if a massive exceedence happens? Is Onyx required to evacuate all of the citizens in Sauget? What about us on the other side of the river? Is our Department of National Resources notified if a big cloud is headed for us? Do we run? I don't think that's very practical.

Comments submitted on the 2008 draft permit:

The City of St. Louis sits just a few hundred feet on the other side of the Mississippi River from the Veolia facility. The City of St. Louis should also be included in the response plan outlined in condition 39.

Response: The Contingency Plan is the action plan to address releases or other emergency situations that may occur at the facility. The facility is required to have a contingency plan or emergency response plan to address different scenarios that could occur-- fires, explosions, releases-- and a copy of that plan must be provided to every entity that will be involved in responding to that emergency, such as local fire departments, police departments, a local hospital that may need to treat injuries, and an emergency contractor that may be called upon to respond. Arrangements to manage those emergency situations are made by the facility with local emergency responders.

Regulators compare the plan to the regulatory requirements, but beyond that review the local police and fire department would also review the plan. It is the local responders' responsibility to deal with evacuations off site. They have coordination agreements with other local fire departments for fire fighting and performing evacuations. The facility is required to annually send an update of the contingency plan to those entities and give them the opportunity to comment on and inspect the plant as necessary.

The RCRA permit requires the facility to perform air modeling to evaluate impacts at the fence line and predict if any emergency release would affect the surrounding communities, including those in Missouri. This modeling gives emergency responders information on the likelihood of an impact on the community considering the volume of the release and the distance to the community. Local emergency responders are provided this information so that they may make the appropriate emergency response plans. Community Right-to-Know regulations require the facility to provide Risk Management Plans to U.S. EPA that also model the worst-case release scenarios based on the chemicals managed at the facility. RCRA regulations require that the facility be secured. Some of the means of securing RCRA facilities include fences, guards and security cameras. A permit is issued only once those requirements are met.

Comments submitted on the 2008 draft permit:

Veolia hazardous waste incinerator sits at the edge of a levee which the Corps of Engineers and FEMA have declared structurally deficient, incapable of being certified. This summer a sand boil developed very near Veolia.

We ask you to consider this important information with regard to allowing hazardous waste to be stored and treated adjacent to a levee that could fail. Should the levee fail, hazardous waste would mix with floodwaters from the Mississippi River and wash into nearby communities. It would also mix with the river, which is the source of drinking water for millions of people downstream.

The area sits within the New Madrid Seismic Zone. The U.S. Department of Transportation is spending millions of dollars to fortify area bridges to withstand an earthquake from the New Madrid Fault, which scientists predict could reach a magnitude of 7 or above within the next 50 years. According to scientists at the Midwest Levee Conference in June 2008, the Corps of Engineers did not build levees to withstand

liquefaction from earthquakes until several decades after the levee adjacent to Veolia was built.

Response: Levees protect properties from flooding; typically flooding periods on the Mississippi River are anticipated several days prior to high water occurring. This allows adequate time for the facility to prepare for a significant flood and the potential breach of a levee. During a major Mississippi River flooding period in 1993, a corporate sister facility to the incineration facility was issued emergency permits to accept water-reactive waste from the incinerator site for temporary storage until the threat of a levee breach had passed. During that significant flood event (greater than a 100-year flood), the levee was not breached.

Condition VI.1. was added to the permit to address the flooding concern. The facility currently has procedures in place to address the threat of flooding and these are the procedures that were invoked during the 1993 flood. This permit condition requires the facility to submit, within 60 days of the date of the final permit, a permit modification request to amend the Contingency Plan to address incidents where flooding may occur at the facility. This permit condition allows those procedures to be reviewed and approved by the Illinois EPA.

The location of the facility is not within a seismic zone as identified by the RCRA regulations. RCRA facility location restrictions require that if a facility is in the 100-year floodplain, it must be designed, constructed, operated and maintained to prevent washout of any hazardous waste by a 100-year flood. The facility is in an area protected from the 100-year flood by the Mississippi River levee system. Because the breach or failure of a levee would be of concern only during flooding, the only period during which an earthquake's damage to a levee could impact adjacent facilities with no time for preparation is if an earthquake occurred during significant flooding of the Mississippi River when the floodwaters would be challenging the levee. Even in that situation, the permit condition described above addresses the issue.

Comment submitted on the 2008 draft permit:

There is a reference in the permit to hydrology and geology studies, including groundwater levels. This facility is adjacent to the river and the groundwater levels are extremely high. It is essential that you put requirements in place that will protect the groundwater. Contaminated groundwater would flow into the river, the source of drinking water for many.

Response: The Veolia facility storage tanks and drum storage units are equipped with secondary containment systems designed to prevent releases of stored hazardous wastes from getting into the soil and from there, into groundwater. Secondary containment systems consist of the impermeable areas in which waste containers are stored; the floor's curbing or diked walls, impermeable floors (and sometimes also sumps) provide the capacity to catch and hold releases of up to 10% of the maximum volume of containerized wastes stored in the unit or 100% of the volume of the largest storage tank in the unit.

Additional Information

Copies of this Response Summary and related documents, including the risk assessment documents prepared by the U.S. EPA, will be available to everyone who provided comments and registered at the hearing on this permit action. An electronic copy of these documents will be available at the Illinois EPA's web site at the following link:

http://www.epa.state.il.us/public-notices/2008/general-notices.html#veolia

If you wish a paper copy of this Response Summary to be sent to you, or if you have questions about this document, please contact:

Mara McGinnis, Office of Community Relations (MC #5)
Illinois EPA
1021 N. Grand Ave. East, P.O. Box 19276
Springfield, Illinois 62794-9276

phone: 217-524-3288
e-mail: Mara.McGinnis@illinois.gov

The following permitting documents are available for examination and review via Freedom of Information Act (FOIA) requests:

Public Notices;
Illinois EPA's and U.S. EPA's draft and final permits; and
Other documents included in the Administrative Record for this permit decision.

Please contact Ms. McGinnis for information about making a FOIA request for any of these documents.

Thank You

The Illinois EPA and U.S. EPA staff involved in this RCRA permit renewal for the Veolia facility appreciate the interest, time and effort community members devoted to attending the 2003 hearing and providing comments on both the 2003 and 2008 draft renewal permits. We hope that this Response Summary has helped the community better understand our responsibilities for administering the RCRA permitting program. Public comments and the changes to the permit incorporated in response, have helped improve the final, renewed RCRA permit.

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Illinois EPA's Response to Onyx/Veolia Comments

1. **Page II-1 Section B.3** Draft Permit reads:

The Permittee is prohibited from storing waste that is identified in Section VI of this permit in the permitted units identified in Condition II.B.2.

Onyx comment:
Customers occasionally send waste that is identified in Section VI and not acceptable at the facility. The facility makes arrangements to reject this waste back to the generator or an alternate facility. However, in the interim, the waste will be stored in permitted storage according to its compatibility until the waste can be transported back off-site.

Illinois EPA Response: The condition will be changed to:

The Permittee is prohibited from storing waste that is identified in Section VI of this permit in the permitted units identified in Condition II.B.2. except as needed in cases when waste must be rejected to the generator or an alternate facility.

2. Page II-5 and 6 Section J **Draft Permit reads:**

J.1. "Incompatible Waste" means waste that meets the definition of "incompatible waste" in 35 Ill. Adm. Code 720.110.

J.4. The permittee shall not store containers holding a hazardous waste that is with any incompatible waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments unless separated from the other material or protected from them by means of a dike, berm, well, or other devices.

J.5. The permittee shall not place containers of incompatible waste in the same storage bay.

J.6. Incompatible wastes in the staging/receiving area may be separated according to DOT classifications. In all other areas of the facility incompatible wastes must be separated in accordance with 35 IAC 724.277(c).

Onyx comment:
The Agency has changed the method of container storage from the modified DOT compatibility procedure that is currently being utilized to the IEPA definition of incompatible waste. The facility currently stores waste by the modified DOT procedure defined in the RCRA Part B permit that expired on May 5, 1998. The application for the renewal of this permit specified that this procedure would be

continued to be used. The draft RCRA Part B permit that was issues for comments in June, 2003 defined the modified DOT compatibility storage as the method to be used to store waste in container storage buildings. There were no comments during the public notice period on this issue and the facility has had no incidents in storage that would require a change to this requirement. As a result, the question is what rational the Agency used for changing this requirement. It is also Veolia's understanding that other TSDF's in Illinois store according to the DOT hazard class requirements.

The compatibility method defined in Section J.6. of the draft permit is 35 IAC 724.277(c). This regulatory citation merely states that waste that is incompatible must be separated by a dike, berm, wall or other device. The definition of incompatible is defined in 35 IAC 720.110, with examples of potentially incompatible waste defined in Appendix V of 35 IAC 724, Veolia's modified DOT compatibility storage requirements were developed based on the examples of Appendix V. If the current storage compatibility requirements are modified to a different requirement, the facility would first need to have the exact compatibility requirements defined (Appendix V gives examples of potentially incompatible waste) and have a compliance schedule to completely modify the storage of waste on-site.

Illinois EPA Response: The modified DOT compatibility storage method does not meet the requirements of 35 IAC 724.277(c). This condition will remain unchanged from the draft permit.

3. **Page II-6 Section K.7** Draft Permit reads:

Incinerator ash generated at the facility shall not be stored for more than 90 days. The Permittee may only store the on site generated incinerator ash in the ash storage buildings or the 90-day storage pad.

Onyx comment:
The facility can also store ash in the defined permitted storage areas defined in this section. If incinerator ash exceeds 90 days on-site, Veolia can put this material in permitted storage.
Illinois EPA Response: The condition will be changed to read:

Incinerator ash generated at the facility shall not be stored for more than 90 days. The Permittee may only store the on site generated incinerator ash up to 90 days in the ash storage building or 90 day storage pad. Incinerator ash must be placed in RCRA permitted storage if it exceeds 90-day storage.

4. **Page II-7 Section K.9** Draft Permit reads:

A maximum of 4 - 55 gallon containers may be staged for less than 24 hours in the area near the drum conveyor in the materials processing building

Onyx Comment:
This condition applies to a material processing building that was never built.
Illinois EPA Response: This condition will be removed from the permit.

5. Page II-7 Section K.10 **Draft Permit reads:**

The row of drums stored next to the berm separating incompatible wastes shall only be stacked one high.

Onyx comment:
Current stacking practices would prevent uncontrolled conditions in an event where the two different classes would be commingled. Rows of drums stored next to wastes of a different DOT class are stacked only with Class 9, non-reg, non-haz or Class 6 poisons; however Class 6 Zone A poisons are never stacked. Class 4 & 5 wastes are double stacked with the same type of DOT class waste stacked next to them. There is no stacking of Class 3, Class 6 Zone A or Class 8 wastes.

Illinois EPA Response: Condition II(K)(10) was removed from the permit.

6. **Page III-3 Section D.4** Draft Permit reads:

Bulk delivery trucks are permitted to remain in the truck staging/parking area for a period up to 24 hours for sampling/analysis purposes before the waste must be shipped off-site or moved to a permitted storage area.

Onyx Comment:
Need to make an allowance for tankers that come in over a three-day holiday weekend, that are in the discrepancy resolution process, or in the process of rejection to another facility. In some instances, the tanker could sit on-site for several days in transportation while the tanker is being rejected or in the process of trying to resolve a discrepancy with the generator of the waste. It can take several days for the generator to respond and resolve the discrepancy. The trucks will be staged in the truck parking area and are inspected daily during the discrepancy resolution or rejection process. As an alternative, these tankers could be stored on the 90-day storage pad that is a concrete containment area that is capable of holding the contents of an entire tanker. Veolia is always concerned with trying to put time restrictions on discrepancy resolution or analysis because this can lead to errors and mistakes that could be prevented.

Illinois EPA Response: The condition will be changed to read:

Bulk delivery trucks are permitted to remain in the truck staging/parking area or permitted storage area for sampling/analysis purposes, in cases when waste must be rejected to an alternate facility or in the discrepancy resolution process. *Bulk delivery trucks are permitted to remain in the truck staging/parking area for a period up to 24 hours for sampling/analysis purposes before the waste must be shipped off-site or moved to permitted storage area.* ***These areas must be inspected daily to ensure the tankers are secured.***

7. **Page III-4 Section 2.b** Draft Permit reads:

A hydrostatic leak test or other integrity assessment as approved by the Illinois EPA shall be conducted annually on ancillary equipment which cannot be visually inspected daily. The hydrostatic leak test or other integrity assessment may be conducted by the permittee's personnel that have been trained on the applicable testing procedures.

Onyx Comment:
Provide clarification on what equipment is being referred to and methods or procedures required for "hydrostatic leak test." The facility has no underground piping as a result all piping and ancillary equipment can be visually inspected.

Illinois EPA Response: The condition will be changed to read:

Ancillary equipment must be visually inspected for leaks daily.

8. Page IV-1 Section A.4 **Draft Permit reads:**

The Permittee shall not incinerate source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, 42 U.S.C. 2011 et. seq. or radioactive material discharged in accordance with Ill. Rev. Stat. ch. 111 1/2, Sec. 230.1 et. seq., certain shock sensitive or air reactive wastes, wastes containing greater than 50 ppm PCBs, asbestos wastes, waste streams designated F020, F021, F022, F023, F026, F027, or F028, or any waste listed in Section VI of this permit. The permittee shall not accept wastes with detectable amounts of dioxins or furans, as defined in the waste analysis plan, dioxin policy.

Onyx Comment:
Clarification that "certain shock sensitive or air reactive wastes" are those waste prohibited in Section VI of this permit.

Illinois EPA Response: **The condition will be changed to:**

The Permittee shall not incinerate source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, 42 U.S.C. 2011 et. seq. or radioactive material discharged in accordance with Ill. Rev. Stat. ch. 111 1/2, Sec. 230.1 et. seq., shock sensitive or air reactive wastes identified in Section VI of this permit, wastes containing greater than 50 ppm PCBs, asbestos wastes, waste streams designated F020, F021, F022, F023, F026, F027, or F028, or any waste listed in Section VI of this permit. The permittee shall not accept wastes with detectable amounts of dioxins or furans, as defined in the waste analysis plan, dioxin policy.

The following comments from Veolia were provided to U.S. EPA for response on behalf of Illinois EPA. The Illinois EPA concurs with U.S. EPA's recommendations concerning these comments and has made the U.S. EPA-recommended changes to the final Veolia permit.

VEOLIA COMMENT: ***Page IV-2 Section A.9.***

Draft Permit reads: *"Mercury Annual Feed Rate Limit. The Permittee shall not feed more than a total of 3.63 kilograms (kg) of mercury per year to any combination of the three incinerator units. The Permittee shall not feed mercury or mercury-containing materials, including hazardous waste, solid waste, fuels, and any other feed streams into the incinerators at a rate that will result in an exceedance of the mercury annual feed rate set forth in this paragraph. For purposes of the mercury annual feed rate limit, the first year shall begin on the effective date of this permit and each year thereafter shall begin on the anniversary of the effective date of the permit."*

1. Demonstrated removal efficiencies for each of the incineration units were not taken into consideration in developing this mercury annual feed rate limit. The facility completed metals testing on all three incinerators in August, 2008 that included mercury testing. Test reports along with SRE data will be submitted to IEPA and USEPA to document compliance with the Regulations and define a annual feed rate limit for mercury based on these testing results.

2. Veolia submitted a revised Human Health Risk Assessment to USEPA in November, 2005. The results of this assessment demonstrated no risk to human health and the environment based on the current Incinerator MACT emission limit for Mercury. Veolia, as of this writing have received no comments from the Agency on this report.

3. This defined feedrate limit along with the requirements for calculating mercury non-detected sample analysis defined in this permit would essentially make this facility non-viable.

Commentor's Suggestion: Incorporate the revised annual feed rate limit for mercury for the incinerators based on the August, 2008 test results and the revised Human Health Rick Assessments results submitted by Veolia in November, 2005.
EPA RESPONSE:

1. The results of the August 2008 test burns were not available for the July 24, 2008 draft permit. They can be considered as part of a request for a permit modification. Illinois Environmental Protection Agency and U.S. Environmental Protection Agency did review system removal efficiency (SRE) data for mercury from test burns conducted prior to the August 2008 test burns, however, SRE calculations from these burns were rejected because they either lacked adequate test feed analysis and quality control or failed the MACT standard at the stack or both.

2 The Agencies and Veolia have over a ten-year history of communication regarding the human health risk assessments to establish RCRA permit conditions. The following is a summary of the main communication points regarding the site-specific risk assessment process:

- 1995 Veolia did not include a site-specific risk assessment in its Part B RCRA permit application.

- 1998 EPA contractor provided site-specific data to EPA to perform risk assessment.

- 2001 EPA prepared a draft screening risk assessment from 1995 test burn data that showed a potentially high cancer risk from dioxin exposure. EPA contacted the facility and was told about the facility's installation of a carbon-injection unit in 1998 to reduce dioxin emissions. The facility then provided stack test data to be used in a revised risk assessment.

- 2003 The results from a revised risk assessment that indicated acceptable risk and hazard results was submitted for public comment with the Draft permit for public comment. The Sierra Club commented that the risk assessment should include deposition into water bodies located at Frank Holden State Park.

- 2004 EPA agreed with The Sierra Club's comments and revised the risk assessment to address deposition into those water bodies. When revised, the risk assessment revealed that the hazard index was unacceptable due to the potential for people to consume fish that might be contaminated from mercury emitted at the MACT standard. Based on this revision, EPA was able to back-calculate an emission rate from the acceptable hazard index to establish an annual mercury feedrate for the permit.

- 2004 Veolia submitted its own risk assessment. EPA and Veolia communicate extensively to attempt to resolve the many differences in the two reports, including the treatment of fish consumption rates and trophic level parameters.

- 2005 Veolia conducted additional testing to determine mercury speciation and particle size distribution at Unit 4. At a meeting called to discuss high-end fish consumption and fish trophic level parameters, Veolia submitted a revised risk assessment that used portions of a newly released EPA final combustor risk assessment guidance. This risk assessment did not incorporate EPA's comments on fish consumption rates and trophic level parameters.

- 2007 EPA revised its risk assessment to include site-specific elements of Veolia's risk assessment while addressing the new EPA guidance and the EPA-recommended fish consumption rates and trophic level parameters. IEPA concurred with EPA's risk assessment and incorporated permit conditions based on the EPA risk assessment in the new Draft RCRA permit.

3. Economic viability is not a factor in the determination of appropriate permit conditions. Veolia's facility is in the business of commercially incinerating hazardous wastes and needs to meet conditions necessary to protect human health and the environment. These permit conditions are necessary to protect human health and the environment from the consequences of mercury emissions. These conditions are designed to reduce mercury emissions at the stack in order to mitigate the potential for mercury deposition in nearby lakes and subsequent exposure of residents to ingestion of mercury contaminated fish.

EPA disagrees with Veolia and recommends the permit condition remain unchanged.

VEOLIA COMMENT: Pages IV-2 – IV-5 Section A.10. Special Mercury Procedures

General Statement: The "Special Mercury Procedures" defined in Section IV of the Draft Part B are overly onerous, appear punitive and have no regulatory or safety basis. These procedures are also not consistent with the requirements for mercury analysis for the other hazardous waste incinerators in Region 5. A review of the Heritage – WTI RCRA Part B Permit and the Ross RCRA Part B Permit in regards to these requirements merely state that the facility's are to follow the procedures detailed in their Waste Analysis Plan. The requirements in their WAP are far less onerous than those defined in the Veolia's draft RCRA Part B Permit.

EPA RESPONSE:

Draft permit conditions are based on site-specific conditions and risk assessment at the Veolia facility and in the surrounding community. These conditions were deemed necessary to protect human health and the environment from the consequences of mercury emissions. Site-specific dispersion modeling and risk assessment showed that mercury emissions from the Veolia facility could result in deposition of mercury in and around lakes used for fishing downwind of the facility. These conditions are designed to reduce mercury emissions at the stack in order to mitigate the potential for mercury deposition in the nearby lakes and subsequent exposure of residents to ingestion of mercury contaminated fish. The special mercury conditions are designed to verify compliance with the mercury feedrate limit and simply require analysis of Veolia's feed for mercury and proper documentation. Veolia's current WAP is inadequate for this purpose and adding "Special Mercury Conditions" to the permit that supersede the WAP was more efficient than rewriting Veolia's entire WAP.

VEOLIA COMMENT: Page IV-2 Section A.10.(i)

Draft Permit reads: *"Special Mercury Procedures. The Permittee shall implement the following special mercury procedures beginning on the effective date of this permit:*

Pre-acceptance screening procedure. The Permittee shall screen all waste for mercury prior to acceptance for incineration at the facility. The Permittee shall obtain, prior to the shipment of waste to the facility, a representative sample of the waste for mercury analysis by the Permittee using appropriate quality assurance/quality control procedures and an appropriate test method that are consistent with the "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846). The Permittee shall follow this pre-acceptance screening sampling and analysis procedure at least twice a year for each waste stream using appropriate quality assurance/quality control procedures and an appropriate test method that are consistent with SW-846. If the sampling analysis indicates that the concentration of mercury in the waste is such that the mercury annual feed rate limit in condition IV(A)(9) would be exceeded, the Permittee shall not accept such waste for incineration at the facility."

1. Samples are submitted for many wastes that simply do not contain mercury. The generators waste profile sheet and accompanying MSDS (if the waste is a off-spec product) will determine if the waste is suspect for mercury. Veolia has a procedure in place that models the PCB Policy in the Waste Analysis Plan that defines the criteria for suspect. If a waste is not a mercury "suspect" waste based on a review of the waste profile sheet and/or MSDS, mercury analysis should be deferred. If the waste requires mercury analysis, the analysis will be completed during the acceptance procedure when the waste is on-site.

2. Pre-acceptance analysis is performed on many wastes that will never actually be received. Requiring mercury analysis on wastes that may not be received ties up personnel and instrumentation resources which could be better utilized for analyzing wastes which are actually in the process of being received for incineration. Veolia bases its approval criteria on the waste profile sheet and/or MSDS and the mercury concentration that is defined by the generator. Veolia will not approve waste that are prohibited by the RCRA Part B Permit, the regulations or the defined mercury concentration would exceed our feed rate limits. If the waste is approved for acceptance and meets any element of our Mercury suspect criteria, the waste will be analyzed for mercury upon receipt of the waste on-site.

3. Performing pre-accepting screening sampling and analysis twice a year is over burdensome and provides no additional information for compliance with the regulations. Veolia currently recertifies it waste streams every five years or if the process generating the waste changes. Veolia has thousands of waste profiles approved from generators that are never received. Many of these profiles are lab packs or off-specification products that the exact chemical composition is known. If waste is shipped to the facility, Veolia will determine if the waste is "mercury suspect" based on our defined criteria. If the waste is suspect for mercury it will be analyzed for mercury concentration upon receipt during the acceptance.

4. There are instances when a waste is profiled prior to being generated. In these cases, it would be impossible to obtain samples for pre-acceptance analysis. Generators who have approved profiles in place but have not shipped the waste will not provide a sample every six months.

5. Veolia's lab currently performs the analyses required by the WAP on 50-60 profile re-certifications per month. There are more than 9,000 profiles that are currently active at the facility. Were pre-acceptance screening and analysis procedures, to be required for the thousands of active profiles twice per year, the workload for this activity alone would increase to 1,500 each month. The added costs associated with wages and the purchase of additional instrumentation would be substantial. In addition, if Flash point, PCBs and metals as a part of our recertification analysis for all waste streams, if would take a significant amount of extra analysis time.

6. Recertifying every 6 months would simply add no new information relevant to processing the waste. Profiles are already amended every five years, or as process generating the waste changes and if they become discrepant.

7. Veolia feels that many of these additional conditions are overly onerous, appear punitive, have no regulatory or safety basis and are not consistent with the requirements of the other Region 5 hazardous waste incinerator permits.

Commentor's Suggestion : Delete the requirement for sampling and analysis of waste streams every six months. Continue to follow the current WAP requirements of recertifying waste streams every five years that includes analysis for mercury. The facility will analyze all waste that meet our mercury suspect protocol before incineration.

EPA RESPONSE:

1. Given the sensitivity of the surrounding community to mercury emissions and the allowable mercury feed rates in this permit, even small amounts of mercury in waste could impact the annual limit. MSDS sheets often limit reported concentrations to percent-levels (10,000 mg/kg). A small quantity of waste (i.e. one cubic yard) at even half this concentration would comprise the entire annual feed rate limit of mercury. Veolia's approach to analyze only waste "suspect" for mercury is not sensitive enough to ensure they comply with the mercury emission standard in this permit.

40 CFR Part 264.13(a)(1), states that "[b]efore an owner or operator treats, stores, or disposes of any hazardous wastes, or nonhazardous wastes if applicable under §264.113(d), he must obtain a detailed chemical and physical analysis of a representative sample of the wastes. At a minimum, the analysis must contain all the information which must be known to treat, store, or dispose of the waste in accordance with this part. . ." Although §264.13(a)(2) goes on to say that the analysis may be obtained from other sources, such as a generator, it does not guarantee that those sources *will* be sufficient, only that they *may* be. In fact, if the generator cannot supply the necessary information, the owner or operator is still responsible for obtaining it.

Veolia's own comment to Page IV-3 Section A.10.(vi) of the draft permit illustrates how even a small amount of mercury in a large waste stream may be critical to demonstrating compliance with an annual feed limit. The amount of mercury referenced (a detection level of 0.05 mg/kg) is well below the typical hazardous waste screens for mercury (0.2 mg/L TCLP) that a generator might certify to. Veolia's own example clearly shows the potential for mercury concentrations that are high enough to exceed the annual limit to go undetected, unsuspected, and assumed to be zero when they might not be. Thus, the permit conditions were designed to ensure that Veolia obtains good and detailed chemical analysis for the mercury content in wastes it will incinerate using appropriate methods and techniques for quality assurance and quality control.

2. Since the primary concern is the amount of mercury processed for incineration by Veolia, EPA recommends that pre-acceptance screening for mercury be required only when the waste stream will be incinerated. When Veolia decides to actively accept intermittently generated waste, the waste must be or have been screened for mercury in accordance with the special mercury procedures no more than one year prior to receiving the waste.

3. Since the proposed mercury feedrate is an annual one, EPA recommends the recertification occur no less than once a year. Given the sensitivity to risk from even low levels of mercury emissions and the potential for small variations in mercury content to increase risk, this interval shall not exceed one year (instead of the frequency provided for in the RCRA WAP). Veolia remains subject to the requirements to repeat analysis pursuant to Part 724.113(a)(3) of Title 35 of the Illinois Administrative Code.

4. See response to item 2. above.

5. As discussed above, these conditions were deemed necessary to protect human health and the environment from the consequences of mercury emissions.

6. See response to item 3. above.

7. Draft permit conditions are based on site-specific conditions and risk assessment at the Veolia facility and in the surrounding community.

EPA recommends that part of draft permit condition Section IV.A.10.(i) be changed from: "The Permittee shall follow this pre-acceptance screening sampling and analysis procedure at least twice a year for each waste stream . . ." to "The Permittee shall follow this pre-acceptance screening sampling and analysis procedure at least once a year for each waste stream..."

VEOLIA COMMENT: Page IV-2 Section A.10.(iii)

Draft Permit reads: *Batch sampling procedure. If waste accepted for incineration is batched, treated, blended, mixed, or otherwise altered from its shipped state, the Permittee shall sample and analyze such batched, treated, blended, mixed, or otherwise altered waste for mercury prior to incineration using appropriate quality assurance/quality control procedures and an appropriate test method that are consistent with SW-846. If the sampling analysis indicates that the concentration of mercury in the waste is such that the total annual feed rate limit for mercury in condition IV(A)(9) would be exceeded, the Permittee shall not incinerate such waste at the facility.*

1. If mercury analysis is performed at receipt it should not be necessary to re-analyze after batching has been performed. This will eliminate useless sampling and analysis. Following the requirements of this draft permit, waste received for processing as a decant or a consolidation would be analyzed no less than 3 times between the time the load arrives and the time it is incinerated. Also, it is more accurate to analyze the most concentrated waste (at receipt), than mathematically calculate the bended material. This avoids the issue of lower concentrations being found by analyzing blended diluted samples.

2. Operations would be unable to feed from storage tanks and bulk pits while waiting for mercury analysis to be completed.

3. Veolia feels that this additional condition is overly onerous, appears punitive, have no regulatory or safety basis are consistent with the requirements of the other Region 5 hazardous waste incinerator permits.

Commentor's Suggestion: All waste will be analyzed for mercury prior to incineration. Waste that meet the mercury suspect criteria would be sampled and analyzed before blending or consolidating. The blended, consolidated mixture would be calculated, using the results from the individual analysis and be based on volumes and mercury concentrations. This approach is more conservative and accurate then mixing then sampling and possible diluting the results due this activity.

EPA RESPONSE:

1. Given that only a fraction of the containers in an individual waste shipment will be subject to waste-acceptance sampling and analysis, an analysis of a blended batch will be more representative of the waste burned. In light of the more representative nature of blended-batch sampling, the hierarchy for determining mercury concentration for mercury annual feed rate calculation in Condition IV.3.A.10.(vi) should continue to place preference on the results of blended batch sampling. The sampling of intermediate batches or blends is not necessary, only the final batch or blend as fed for incineration.

2. We agree that it would be prudent for Veolia to wait for mercury analysis before burning waste from a particular blended batch.
3. Analysis of the blended batch will yield the most representative sample for mercury as it corresponds to the condition of the waste as fed to the incinerator. Samples from blended batches comprising waste from numerous smaller containers, such as 55-gallon drums, will include representative amounts from all the containers, while only a fraction of such containers will be physically represented in either pre-acceptance (profile) samples or acceptance samples. As the most representative form of sampling for Veolia's wastes, we believe it should remain the first choice for selecting mercury data for compliance documentation.

We recommend clarifying the permit language to make it clear that intermediate batches or blends (those that will have additional waste added to them before incineration) need not be sampled. We recommend adding "in its final form as feed for incineration," to the permit condition as follows:

> ". If waste accepted for incineration is batched, treated, blended, mixed, or otherwise altered from its shipped state, the Permittee shall sample and

analyze such batched, treated, blended, mixed, or otherwise altered waste for mercury, in its final form as feed for incineration, prior to incineration using appropriate quality assurance/quality control procedures and an appropriate test method that are consistent with SW-846.

VEOLIA COMMENT: Page IV-3 Section A.10.(iv)

Draft Permit reads: Fuel procedure. The Permittee shall document the concentration of mercury in any fuel, including natural gas, used oil, diesel, and alternative fuels, but not including hazardous waste, fed into the incinerators by either (1) obtaining analytical results from each fuel supplier or (2) conducting representative sampling of each fuel supply and analyzing such samples using appropriate quality assurance/quality control procedures and appropriate test methods. The Permittee shall follow this procedure at least once per year for each fuel supply. If the sampling analysis indicates that the concentration of mercury in the fuel is such that the total annual feed rate limit for mercury in condition IV(A)(9) would be exceeded, the Permittee shall not feed such fuel to the incinerators.

With the negligible amount of mercury in natural gas, obtaining this information twice a year doesn't provide additional useful information for the time spend obtaining and documenting the information.

Commentor's Suggestion: Delete this requirement. USEPA Air and Land Division have agreed that this requirement is no longer required due to the extremely low concentration of mercury in natural gas. See attached August 1, 2008 USEPA letter.
EPA RESPONSE:

Based on publications pertaining to the mercury content of fossil fuels, EPA agrees with Veolia's request provided they continue to use only natural gas. Other fossil fuels may contain mercury and should not be used without appropriate testing for mercury.

EPA recommends that draft permit condition Section IV.10.(iv) be deleted if the RCRA permit allows only natural gas as an auxiliary fuel or be changed from: "The permittee shall document the concentration of mercury in any fuel, including natural gas, used oil, . . ." to "The permittee shall document the concentration of mercury in any fuel other than natural gas including used oil, . . ."

VEOLIA COMMENT: Page IV-3 Section A.10.(v)

Draft Permit reads: Special mercury procedure recordkeeping. The Permittee shall document compliance with the Special Mercury Procedures set forth in condition IV(A)(10). Such documentation shall include, but is not limited to, pre-acceptance waste

screening determinations, waste acceptance determinations, sampling logs, analysis logs, sampling results, and quality assurance/quality control documentation. Permittee shall maintain such records for seven calendar years and make them available at all times for inspection by U.S. EPA, Illinois EPA, local agencies, or their duly authorized representatives.

Veolia currently records and stores on-site all the information defined in this condition as it does for all waste streams. It appears that this condition is punitive in nature and would require the facility to incur additional recordkeeping and operational cost to comply with this requirement with no added benefits.

Commentor's Suggestion: No change to the facility's record keeping procedures are necessary.

EPA RESPONSE:

Hazardous waste treatment, storage, and disposal facilities are routinely required to document compliance with permit conditions.

EPA disagrees with Veolia and recommends the permit condition remain unchanged.

VEOLIA COMMENT: Page IV-3 Section A.10.(vi)

Draft Permit reads: *Determination of mercury concentration for mercury annual feed rate calculation. The Permittee shall use the concentration of mercury as set forth below in order to calculate the mass of mercury for each waste or fuel fed to each incinerator unit consistent with condition IV(A)(11):*

(1) if waste is batch fed to an incinerator unit, the mercury concentration for annual feed-rate limit calculation shall be:
(a) the result of the batch sampling analysis required by condition (A)(10)(iv); or
(b) the estimated quantitation limit (EQL), defined as the lowest non-zero concentration of mercury in a 5-point linear calibration study multiplied by the appropriate extraction and dilution factors, if mercury is not detected at or above the EQL in the batch sampling analysis required by condition IV(A)(10)(iii).

(2) if batch sampling is not required, the mercury concentration for annual feed-rate limit calculation shall be:
(a) the highest concentration of mercury detected at or above the EQL from the sampling analyses required for by conditions IV(A)(10)(i) and (ii), or condition IV(A)(10)(iv) for fuels; or

(b) the highest EQL from the sampling analyses required by conditions IV(A)(10)(i) and (ii), or condition IV(A)(10)(iv) for fuels, if mercury is not detected at or above the EQL in any of the sampling analyses required by conditions IV(A)(10)(i) and (ii), or condition IV(A)(10)(iv) for fuels, and there is acceptable knowledge that mercury could be present in the waste or fuel; or
(c) one-half of the highest EQL from the sampling analyses required by conditions IV(A)(10)(i) and (ii), or condition IV(A)(10)(iv) for fuels, if mercury is not detected at or above the EQL in either of the sampling analyses required by conditions IV(A)(10)(i) and (ii), or condition IV(A)(10)(iv) for fuels, and there is acceptable knowledge that that mercury is not present in the waste.

1. "EQL" is not a term familiar to the facility. Veolia assumes that EQL is equivalent to MDL (method detection limit).

2. Veolia feels that this additional condition is overly onerous, appears punitive, have no regulatory or safety basis, is not consistent with the requirements of the other Region 5 hazardous waste incinerators and could make the facility a non-viable operation.

3. There are many cases beyond the Exemptions given in the Draft, where mercury would not reasonably be expected to be in a waste. Using even half the highest EQL for these wastes as described above, would artificially inflate the total quantity of mercury fed to the units. Considering the drastically low feed limit in the draft permit, these sources which do not truly contain mercury should not be added to the total. The following example illustrates this:

If the EQL of 0.1 PPM was used for the 2007 throughput of 74,500,000 lbs, taking _ the EQL = 0.05 PPM.
74,500,000 lbs X 0.05 PPM/1,000,000 = 3.725 lbs Hg
3.725 lbs X 1 kg/2.2 lbs = 1.7 kg Hg
1.7 kg Hg versus 3.63 kg Hg (RCRA permit limit)
50% of Hg calculated by this method in feed coming from _ EQL being used. This example demonstrates how the feed rate calculated by this method could grossly and artificially inflate the Hg feed rate. If following the procedure for a suspect waste, the EQL would be 0.1 ppm which would calculate out to 3.4 kg Hg. This is very near the proposed permitted limit of 3.63 kg. Again, a gross over estimation of what is actually being fed.

This second example details how the Hg feed is artificially inflated by non-batch analytical versus batch analytical: Assume 55 gallon drum @ 1 ppm Hg
25,000 gallon tank @ 0 ppm Hg
EQL = 0.1 ppm
_ EQL = 0.05 ppm

Non-Batch Analytical 55 gallon X 8.34 lbs/gal X 1/1,000,000 = 0.0000459 lbs Hg
Calculated Hg concentration in tank: 55/25,055 X 1 ppm = 0.0022 ppm Hg

Batch Analytical 55 gal + 25,000 gal X 8.34lbs/gal X 0.05/1,000,000 = 0.01045 lbs Hg

Using the batch analytical calculation the Hg is inflated 23 times the non-batch analytical calculation.

Commentor's Suggestion: Delete this entire section due to the flawed natural of this calculation. Incorporate Veolia's current method of analyzing the waste as received, then calculating the batch concentration based on actual volumes and concentrations of the waste. This is more accurate and will not bias the results due to dilution.

EPA RESPONSE:

1. The EQL is clearly defined in the special mercury procedures and is not equivalent to the method detection limit. The permit defines the EQL as '. . . *the lowest non-zero concentration of mercury in a 5-point linear calibration study multiplied by the appropriate extraction and dilution factors*."

2. This condition is designed allocate an amount of mercury for compliance purposes with the annual feed rate. The condition is designed to ensure a conservative demonstration when multiple sources of data for a given waste are available. The condition is also designed to place a premium on good chemical analysis since more sensitive detection levels for mercury will result in lower annual feed rates.

3. The first example calculation provided does not demonstrate that a gross overestimation is being made. The special mercury procedures call for using the EQL or one-half the EQL. Mercury may very well be present just below these concentrations and to assume zero mercury could grossly underestimate mercury fed to the incinerator. The key to avoiding noncompliance with the annual mercury feed rate is to obtain the best analysis possible so that the lowest detected value or EQL will be used in the calculation. Based on the sensitivity to mercury emissions from the Veolia facility, as shown in the site-specific risk assessment, even small mercury concentrations in some wastes could result in deposition of mercury on the nearby lakes. Since even very small amounts of mercury in wastes that might otherwise be expected not to contain mercury could cause inappropriate emissions, it is important that Veolia check each waste for mercury. To avoid overestimating the amount of mercury in a waste for the purposes of tracking the annual mercury limit, Veolia should seek the lowest EQL by using analytical methods sensitive to very small amounts of mercury. In cases where Veolia can affirmatively demonstrate that mercury is not expected to be in the waste, the special mercury conditions allow Veolia to use one-half of the EQL when mercury is not detected.

In the second example, Veolia does not include an EQL or 1/2 EQL for the 25,000 gallons of liquid waste, potentially artificially lowering the mercury content of the blended batch by assuming exactly zero mercury in the liquid waste. By including the appropriate analytical result or EQL or 1/2 EQL for the 25,000 gallons of liquid waste, the non-batch analytical in the second example would be essentially equal to the batch analytical calculation.

EPA disagrees with Veolia and recommends the permit condition remain unchanged.

VEOLIA COMMENT: Page IV-5, Section A.10.(vi) paragraph following (6)

Draft Permit reads: The Permittee shall review any container labels, material safety data sheets, drum inventories, packing lists, and any other relevant data or information provided by the generator to determine whether mercury is present in any waste listed above that may be exempt. Only those wastes listed above that the Permittee determines in writing contain no mercury based on such review are exempt from the Special Mercury Procedures set forth in conditions IV(A)(10)(i) through (vi). The Permittee's written determination of exemption from the Special Mercury Procedures shall describe the information reviewed and the basis for the determination that no mercury is present. Any waste listed above for which there is insufficient information to allow the Permittee to make a reasonable determination that mercury is not present shall not be exempt. The Permittee shall maintain any written determination of exemption at the facility for seven calendar years and make it available at all times for to U.S. EPA, the Illinois EPA, local agencies, or their duly authorized representatives for inspection.

The list needs to not be all-inclusive and make provisions for those waste that are not identified on this list but meet the mercury exemption criteria.

Commentor's Suggestion: Add a provision to this list that includes other waste types that meet the mercury exemption but may not be identified on this list.

EPA RESPONSE:

Generally, the exception to required mercury analysis should stem from either of two concepts taken from the April 1994, *Waste Analysis At Facilities That Generate, Treat, Store, And Dispose Of Hazardous Wastes, A Guidance Manual:*, U.S. EPA Office of Solid Waste And Emergency Response, OSWER 9938.4-03:

1. Physical nature of the waste does not lend itself to taking a laboratory sample, and
2. Health and safety risks to personnel would not justify sampling.

Given the premise of Veolia's business model as disposal services for hazardous materials, there is an expectation that Veolia should be capable of handling and analyzing (or procuring off-site analysis) of many types of high hazard wastes that do pose health and safety risks. Veolia is in the business of disposing of hazardous waste. Therefore, this exception should be limited to extreme cases wherein the risk to laboratory personnel is much greater than to other facility personnel who routinely handle the waste because of the unique risks posed by laboratory techniques versus other facility operations.

A small number of other possible exception criteria described in the RCRA Waste Analysis Plan Guidance were rejected in this case because of the importance of identifying even trace amounts of mercury incinerated at this location and because mercury analytical services are commonly available at both commercial laboratories and Veolia's own on-site laboratory. For example, the RCRA Waste Analysis Plan Guidance also states that:

> "any waste described in the F, P, or U list has already been designated as hazardous by EPA. Therefore, with many listed wastes the application of acceptable knowledge is appropriate because the physical/chemical makeup of the waste is generally well known and consistent from facility to facility."

EPA does not believe that the "*generally well-known chemical make-up of the waste*"-assumption will adequately account for mercury concentrations at the levels the risk assessment is sensitive to. Furthermore, it is not difficult to obtain representative samples for many of these wastes or to analyze them in Veolia's on-site lab or at an appropriate off-site facility. Veolia should actively test these wastes.

The current draft permit exemption categories can be related to the RCRA Waste Analysis Plan Guidance exception concepts as explained below.

Exemption number (1) is for "packaged chemicals from laboratories, hospitals, household clean sweeps, or manufacturing facilities, including scintillation vials packed in accordance with Small Quantity Chemical Guidelines (SQCG's)." This type of waste is often referred to as a *lab-pack* and consists of containers such as drums packed with many smaller containers. Due to the small size of each of many individual containers combined with the likelihood that such materials will have some label or other documentation, EPA believes the physical nature of this type of waste does not lend itself to taking laboratory samples. However, *chemicals from laboratories, hospitals, household clean sweeps, or manufacturing facilities* that are not packaged in numerous small containers or are unknowns (such as having no labels or other identification) would not be appropriate to exempt from mercury analysis.

Exemption number (2) "Empty containers as defined in 35 IAC 721.107(b);" should present a similar problem sampling provided they are really empty (meeting all three of the provisions of 35 IAC 721.107(b)).

Exemption number (3) "Pharmaceutical and commercial products or chemicals that are off-specification or outdated and are packaged in consumer quantities, are unused or banned, and are in their original packaging or are packaged as specified by the Permittee" fall into the same category due to the small size of individual containers combined with the likelihood that such materials will have some label or other documentation. Just as for the lab-packs, wastes described by this exemption that are not packaged in numerous small containers or are unknowns (such as having no labels or other identification) would not be appropriate to exempt from mercury analysis. In light of the clarification, we recommend deleting " . . .or are packaged as specified by the Permittee" as this could include bulk shipments that present no difficulty in sampling.

Exemption number (4) "Aerosol cans, lecture bottles or gas cylinders;" are also considered to present sampling problems due to the physical nature of the waste not lending itself to the taking of a laboratory sample. However, *aerosol cans, lecture bottles or gas cylinders* that are unknowns (such as having no labels or other identification) would not be appropriate to exempt from mercury analysis.

Exemption number (6) "Explosive, poison inhalation hazard (PIH), or odiferous material, such as mercaptan, which present sampling, and analytical safety hazards." are considered to present health and safety risks to personnel that would not justify sampling as long as these materials are to be handled unopened until destroyed in the incinerator. Wastes that might otherwise meet this definition but are opened, bulked, repackaged, or otherwise handled by the permittee are viewed as hazardous materials for which the permittee is willing to and able to handle despite the risks and would not be exempt from mercury analysis.

Exemption number (5) "Controlled substances regulated by the Federal Government"; are for controlled substances as defined in 21 CFR Part 1308 that are required by the United States Drug Enforcement Agency to be processed unopened. This exemption stems from the requirements of other Agencies and not from the RCRA Waste Analysis Plan Guidance concepts.

EPA continues to recommend requiring affirmative documentation of the absence of mercury for wastes exempted from special mercury conditions (permit condition A.10(vii)). Veolia must be able to document that mercury is not present in the exempted wastes. A lack of documentation that mercury is present does not mean that mercury is absent.

The appropriate method for adding other waste types to the list of exemptions to the special mercury procedures is as a Class 2 Permit modification as defined in Title 35 of the Illinois Administrative Code, Section 703, Appendix A, Classification of Permit Modifications.

Specifically, modification A.4. "Changes in the frequency of or procedures for . . . sampling . . .",
modification B.1.d "changes to waste sampling or analysis methods. . .other changes. . .", and
modification L.5.c. "Modification of any other operating condition or recordkeeping requirement specified in the permit. . . " all require a class 2 permit modification.

In order to clarify the approach to mercury analysis exemptions, EPA recommends the following changes to the draft permit conditions. EPA also recommends that a permit modification framework for adding types of wastes to the list of exemptions be presented to Veolia under separate cover including a description of the exemption criteria.
Add "except those that are not packaged in numerous small containers or are unknowns (such as having no labels or other identification)" to permit condition IV.A.10. (vii)(1) as follows:

(1) Packaged chemicals from laboratories, hospitals, household clean sweeps, or manufacturing facilities, including scintillation vials packed in accordance with Small Quantity Chemical Guidelines (SQCG's) except those that are not packaged in numerous small containers or are unknowns (such as having no labels or other identification). For packaged chemicals, the Permittee shall obtain a packing list for each container from the generator specifying type and quantity of chemicals contained within;

Add "except those that are not packaged in numerous small containers or are unknowns (such as having no labels or other identification)" to permit condition IV.A.10. (vii)(3) and delete "or are packaged as specified by the Permittee" as follows:

(3) Pharmaceutical and commercial products or chemicals that are off-specification or outdated and are packaged in consumer quantities, are unused or banned, and are in their original packaging except those that are not packaged in numerous small containers or are unknowns (such as having no labels or other identification);

Add "except those that are unknowns" to permit condition IV.A.10. (vii)(4) as follows:

(4) Aerosol cans, lecture bottles or gas cylinders, except those that are unknowns;

Add ", as defined in 21 CFR Part 1308," and "and are handled unopened until destroyed in the incinerator" to permit condition IV.A.10. (vii)(5) as follows:

(5) Controlled substances, as defined in 21 CFR Part 1308, regulated by the Federal Government and are handled unopened until destroyed in the incinerator; and

Add ", that are handled unopened until destroyed in the incinerator" to permit condition IV.A.10. (vii)(6) as follows:

(6) Explosive, poison inhalation hazard (PIH), or odiferous material, such as mercaptan, which present sampling, and analytical safety hazards, that are handled unopened until destroyed in the incinerator.

VEOLIA COMMENT: Page IV-5 and IV-6, Section A.11, A.12 and A.13.

1. The requirements defined in condition 11, 12 and 13 are maintained at the facility through various reports and documents including electronic media. These records are available at any time for Regulators to review, however, these records that demonstrate compliance with the mercury feed rate are not incorporated into one log. This requirement of all the information documenting compliance in one log is not required by the Regulations and seem to be arbitrary and capricious.

2. Veolia feels that this additional condition is overly onerous, appears punitive, have no regulatory or safety basis and are not consistent with the requirements of the other Region 5 hazardous waste incinerator permits.

Commentor's Suggestion: Delete conditions A.11, A.12 and A.13. Veolia maintains all of required records that are defined in these conditions, however they are in many different reports and on electronic media but not part of one log. They are available for review at any time.

EPA RESPONSE:

Hazardous waste treatment, storage, and disposal facilities are routinely required to maintain records or logs documenting compliance with permit conditions. Since so many different sources of information are necessary to demonstrate compliance with an annual mercury feed limit (waste mercury concentrations, waste feed rates, three different incinerators, etc.) it is reasonable to require that the information be organized in a concise manner such as a single log. Without such a log, it would be very difficult to verify that facility emissions will not pose a hazard to human health through ingestion of mercury in fish. For example, Veolia currently tracks mercury feed rates electronically, yet was unable to provide information about the highest 12-hour rolling average mercury feed

rates to Agency personnel for over four months after requested by EPA. A single log comprising all of the data necessary to calculate the total facility annual mercury feed rate and that can be reviewed for compliance during a facility visit will significantly improve Veolia's ability to document compliance.

EPA disagrees with Veolia and recommends the permit condition remain unchanged.

VEOLIA COMMENT: Page V-1, Special Condition 6

Draft Permit reads: *Mandatory analysis must be conducted on each individual phase of a multi-phase waste stream.*

1. This condition doesn't appear to be relevant or apply to Section V, Material Processing.

2. Method SW846 provides specific cases for multi-phase sampling and analysis. It is unnecessary to require multiple samples in all cases if following EPA Methods found in SW846.

3. In discussions with Chris Lambesis of USEPA, he indicated that this was not a mandatory analysis and only applied to metals. Veolia digest all of its metal samples in a microwave using high temperature and pressure in concentrated acids. The reaction is controlled and monitored throughout the digestion. This produces a completely homogenous sample.

Commentor's Suggestion: Delete this condition since it doesn't apply to this material processing section and due to phases being eliminated by the metals sample preparation procedure.

EPA RESPONSE:

Provided Veolia commits to a mercury analytical method that is relatively insensitive to matrix interference, such as *mercury in solids and solutions by thermal decomposition, amalgamation, and atomic absorption spectrophotometry*, EPA agrees that this condition will not be necessary. The method above, SW-846 Method 7473, is very robust and only samples comprising a silica matrix require special sample preparation such as provided by SW-846 Method 3052. Veolia's proposed RCRA WAP refers to none of these methods although EPA personnel observed instruments consistent with these methods at Veolia's on-site laboratory. We recommend changing this condition to reflect these particular methods or ensuring the RCRA WAP is modified to require them.

VEOLIA COMMENT: Page V-1, Special Condition 7

Draft Permit reads: The waste stream profile must include a measured pH of a representative sample of the waste or identify a pH range not to exceed four standard units. Waste identified with a single pH on the profile shall be considered nonconforming if the pH is greater than or less than two standard units of the profile value. Waste identified with a four standard unit pH range on the profile shall be considered nonconforming if the pH is greater than or less than the specified range.

The waste stream profile must include a specification of the total number and type of possible phases expected in the waste stream. Waste shall be considered nonconforming if the number or type of observed phases differs with the number or type indicated on the profile.

1. Liquid wastes are not managed in the material processing areas and so pH would not be a condition relevant to these areas.

2. The second paragraph of Condition 7 doesn't seem to be related to pH.

3. Currently, the facility's WAP defines a discrepancy with pH when the value is less than 2 or greater than 12.5 and it is not profiled as such. This would then require the D002 code to be added to the manifest. The pH of the waste is an indicator for processing. Compatibility testing is completed on all waste added to tanks. Waste is not mixed in material processing so the pH is not a processing issue.

4. The facility has had no incidents with waste due to pH.

Commentor's Suggestion: Remove Special Condition 7 from Section V and continue to follow the current requirements in the WAP.

EPA RESPONSE:

These conditions are designed to flag wastes that may be significantly different than those expected based on the profile. Non-conformance with these conditions is not intended to result in automatic rejection, only further investigation as a non-conforming waste. EPA recognizes the regulatory significance of pH values as they relate to the D002 waste code, however, these requirements address issues of nonconformance that could indicate that waste constituents have undergone dangerous conversion to other compounds or that the waste has been misidentified by the generator. A pH swing between 12.0 on the profile and 2.5 in the drum would not be flagged under the current system, yet the waste could hardly be considered consistent. Additional phases not

mentioned in the profile could carry chemicals, waste codes, and safety and environmental hazards not identified in the profile.

EPA disagrees with Veolia and recommends the permit condition remain unchanged.

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