Comments Onondaga DEIS

1/6/2014

Pam Jenkins

Cortland , NY

Legislators, a number of us have been studying the ash for trash project for one and a half years.

There can be absolutely no excuse for not requiring that Health Impact Assessments, per Federal CDC protocols, be done in each county.

The Cortland County Health Department recommended that a Health Impact Assessment be done for Cortland County. This recommendation was ignored in the DEIS.

Current medical knowledge recognizes that incinerator emissions and incinerator ash contain disease causing toxins.

We want to know how many excess cancers and other diseases are expected to be caused by continued operation of the incinerator and the projected ash dump.

The OCCRA incinerator uses old technology and actually creates dioxins, and acid gasses, vaporizes metals, and releases the most hazardous PM 2.5 and 5.

State of the art incinerators control for PM2.5 and 5, OCRRA does not.

The air emissions float and are precipitated out of the air and deposited on land in all directions out from the Jamesville incinerator, they also land on waterbodies and agricultural land and schools and places where people live.

We pointed out that the Scope and Final Scope and DEIS were lacking, grossly inadequate, non-compliant with SEQR Law and we have been ignored.

Financial and budget details, have been concealed. A concise discussion of financial impact is required to be in the DEIS, it is all but absent.

SEQR Law requires that catastrophic consequences are to be discussed in the DEIS. This is absent in the DEIS.

The DEIS failed to discuss that the closest DEC Critical Environmental Area is just downhill from the Cortland landfill. It is McGraw’s water shed for their public water supply. Several Creeks that drain the landfill run past McGraw’s Public Water Supply and join the Tioughnioga River to flow to the Chesapeake Bay.

Most of our written and spoken questions and comments have not been addressed, and do not appear in the DEIS .

The information we requested is absent.

Open meetings Law continues to be violated by secret meetings and denials of information which is our right to access.

There exists no basis upon which we can see how your decisions are being made.

For a multitude of reasons the only reasonable conclusion that we can come to is that the ash for trash process should immediately be suspended.

Van Buren citizen do not want the landfill in their community used for Onondaga ash.

Well imagine how we feel in Cortland county…we don’t want the recharge zone of our Sole Source Aquifer filled with toxin laden ash, either.

And we are working very hard to be sure that OCRA does not have the option of using the Cortland Landfill for it’s ash.

I have in my hand , a copy of an email from Mark Connelly which states:



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| Mark Donnelly <mdonnelly@ocrra.org> |

 | Attachments11/18/13https://ci5.googleusercontent.com/proxy/CJ5Ml6rJE3CopP8g7mxczYXtpZfKgFzJfshmcfw2XQhHhnEu83tudcHntJAjiQBiREEg7yQKhU_bZskwzBAxX4wwzsBq6h9b3-RkbX8=s0-d-e1-ft#https://mail.google.com/mail/ca/u/0/images/cleardot.gif |  | https://ci5.googleusercontent.com/proxy/CJ5Ml6rJE3CopP8g7mxczYXtpZfKgFzJfshmcfw2XQhHhnEu83tudcHntJAjiQBiREEg7yQKhU_bZskwzBAxX4wwzsBq6h9b3-RkbX8=s0-d-e1-ft#https://mail.google.com/mail/ca/u/0/images/cleardot.gifhttps://ci5.googleusercontent.com/proxy/CJ5Ml6rJE3CopP8g7mxczYXtpZfKgFzJfshmcfw2XQhHhnEu83tudcHntJAjiQBiREEg7yQKhU_bZskwzBAxX4wwzsBq6h9b3-RkbX8=s0-d-e1-ft#https://mail.google.com/mail/ca/u/0/images/cleardot.gif |
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Hello Pam,

OCRRA does not have plans or desire to develop the permitted landfill at this time because, even without the potential partnership with Cortland County, there is sufficient landfill capacity in the state for reuse of the material as an alternative daily cover (under an approved beneficial use determination by NYSDEC).  As both Counties have reciprocal needs, lowering the GHG footprint in the  NYSDEC Region 7 air basin is an environmentally responsible initiative.

Regards,

**Mark Donnelly**

**Executive Director**

**OCRRA**

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**Fax:** 315.453.2872
100 Elwood Davis Road
North Syracuse, NY 13212-4312

We ask you, Onondaga residents and legislators , to be courageous and join with Legislators in Cortland County and in Onondaga County to suspend the ash for trash project and to support phasing out of the OCCRA incinerator, as many communities with incinerators are doing around the country.

 DEIS COMMENTS:

Comments DEIS vol 1

Pam Jenkins

G-1

Question:

Regarding solid residue from any pollution control devices used at a WTE, bottom ash, boiler ash, fly ash, all have different levels of concentrated toxins including dioxins and furans and metals. For each of the above types of ash residue, what is the level of each of the toxins listed in the e-Code of Federal Regulations Title 40, Part 258, subpart G, Appendix l and ll for the expected toxins that occur in incinerator ash?

Why are pollution control device residues, and fly ash, not being treated as Hazardous waste? The EPA states that dilution is no solution for disposal of Hazardous waste….why are these expected to be mixed in with the other ash?

ASH toxicology from the CDC: ATSDR

The **Agency for Toxic Substances and Disease Registry (ATSDR)**, based in Atlanta, Georgia, is a federal public health agency of the**U.S. Department of Health and Human Services**. ATSDR serves the public by using the best science, taking responsive public health actions, and providing trusted health information to prevent harmful exposures and diseases related to toxic substances.

<http://www.atsdr.cdc.gov/HAC/pha/pha.asp?docid=878&pg=4>

1/9/2014

##9. The best way to prevent dioxins from entering the environment would be to prevent incinerators from being built. For those in operation, the best available pollution control technology should be required for storage of incinerator ash, particularly fly ash, but also bottom ash if it contains significant amounts of dioxins.

**The best way to prevent dioxins from entering the environment is to minimize the creation of or avoid producing hazardous wastes and to recycle or reuse any wastes if possible by means that do not cause the generation of dioxins. Incinerators are only one source of dioxin in the environment; other sources of dioxin include cigarettes, fireplaces, automobiles, coal-burning power plants, and industrial plants. The newer incinerators are designed to minimize emissions; therefore, replacing old incinerators with state-of-the-art incineration facilities or requiring the old incinerators to be upgraded to have the best available pollution control technology would be desirable. ATSDR concurs that incinerator ash containing significant amounts of dioxin should be managed in a manner that prevents human exposure.**

##14. ATSDR must evaluate all aspects of incineration applying to MC/CB Superfund Sites including hazardous ash landfills. ATSDR never mentions ash disposal but this is exceedingly important to the MC/CB situation because the burning of soils contaminated with diverse types of toxic pollutants will result in need for hazardous waste landfills of monumental proportions equal in size to the number of cubic yards of soil burned. Only ash promotes leaching-out of toxic substances faster than soil.

The use of the best possible pollution controls is the Catch 22 of incineration since, if the pollution controls are well maintained and effective, toxic pollutants will be concentrated in the ash, which would include not only heavy metals but dioxins, etc.

Dilution, too, is no solution, since it is the sum total of toxic substances that are contained in the ash landfill that will be released over time into the environment that is significant. Since batches of waste feed may vary considerably in toxicity from batch to batch and effective routine sampling of ash is next to impossible, a community will never know the full extent of the toxic burden in the hazardous ash landfill. Prevention of such a legacy to succeeding generations is a strong reason for prevention of incineration.

**ATSDR did not include a lengthy discussion of the proposed ash landfill in Volume II of the PHA because little information is available on the analysis of the ash that would be disposed in the landfill. As noted in the response to the comment above, we have recommended that if the decision is made to build the incinerators and bury the ash in the Bloomington area, a thorough public health evaluation be conducted before the incinerators are built.**

From: http://www.hawkinsindustries.com/hawkins\_42.html

Fly ash is more controversial. Its potentially hazardous nature is due primarily to the volatile toxic metals that it contains. Metals that have low boiling points (Cadmium, Zinc, Lead, Mercury, etc.) tend to concentrate and accumulate in the fly ash, and the ash will frequently fail the EPA test for toxicity. Federal and state regulations have been moving toward stricter disposal regulations for fly ash. Most states now require that fly ash be placed in a regulated monofill or a hazardous landfill

G-4

Question:

Regarding the Travel Corridor: who will pay for infrastructure damage to roads and bridges along the expected corridor and substitute corridors, if the primary corridors are closed due to accidents, weather, failure of bridges?

S-1, and S-9

There is no excuse for not doing new Health Impact Assessments per Federal CDC protocols in Onondaga and Courtland Counties. Otherwise, all statements concerning public health are only subjective.

Question:

Regarding Public Health, why were the 6/13/2014 specific recommendations of the Cortland County Health Department ignored?

These County Health Department recommendations were submitted before the Final Scope deadline and numerous times citizens wrote and spoke of this absence of inclusion in the Final Scope and therefore the DEIS , only to be ignored.

NYS Department of Health statistics indicate that much higher than expected levels of many forms of cancer and other diseases occur in the area of the incinerator, and that these rates have climbed since the incinerator began operations. This data needs to be included in the DEIS, and EIS.

S-1, and 5.2.3-.3

Question:

SEQR Law requires the Final Scope and DEIS to have a thorough fiscal/financial analysis/ budgetary impact discussion. This is absent in both documents. The document is incomplete for this reason and others. We have testified to this in Cortland and Onondaga Counties at the public hearings, to date (12/19/2014).

Financial details re: ash for trash have been requested in writing and verbally, FOIL requested numerous times by numerous parties. They are absent.

 Why have all details regarding Fiscal Analysis been omitted from the Scope, Final Scope, DEIS ?

We cannot comment upon missing information or absent discussions.

Fiscal analysis: SHOW ALL YOUR MATH, not conclusory, unsupported statements.

S-8

Question:

Discuss why C and D waste is ever put in the incinerator when much more environmentally friendly ways of treating this waste are readily available ( shred, use as landfill cover, recovery of resources, reuse)

1.0

Question:

OCRRA and Onondaga could save way more of the transportation costs and could reduce greenhouse gas production if Onondaga County used the landfill within Onondaga for it’s waste and ash disposal needs.

1.1

Question:

Why are the words NYS Super Fund Site missing from this section?

1.2

Question:

Why doesn’t the DEIS state that the closest residence properties actually border the landfill? It incorrectly states 3000ft as the nearest residence.

1.2.2, and 2.1.2.1

Questions:

Why does OCRRA NOT monitor or control for PM 2.5. That would decrease hazardous emissions. OCRRA cannot not use the term state-of-the-art, when it is old technology that is in use.

1.4

Question:

Why did the Final Scope and DEIS FAIL to include 277 pages of citizen input and questions?

1.5, and 1.7, and 3.2.1.1, and 3.2.1.2

Question:

Incineration (of recyclables, C and D, and MSW ) is contra to NYS Beyond Waste goals. Explain how incineration undermines recycling, composting, reduce and reuse goals.

Again, transportation costs and associated greenhouse gasses would be reduced if the Onondaga County landfill were used for all disposal needs.

What is the weight of the proposed loaded trucks?

What is the capacity of all rural bridges along all routes and alternative routes?

How was the estimated number of increased trucks per day arrived at? Again, SHOW ALL YOUR MATH.

1.9

Question:

Why were public comments which were submitted in writing and in person at hearings, omitted from the Final Scope and DEIS?

The Final Scope was adopted by Cortland County before the list of excluded items was known or written or discussed.

2.1.1.1

Question:

Why is there no mention of the groundwater suppression system that is in place due to high groundwater levels over much of the landfill?

Why is there no discussion of the fact that all landfill liners will leak?…It is only a matter of time?

2.1.2.3

Question:

What are all of the chemicals that are tested for in the ash?

Why are you not requiring testing according the electronic Code of the Federal Regulations for all substances that are likely to occur in incinerator ash?

The TCLP test is not predictive of what will happen to the toxins that are trapped temporarily in the ash.

 What additional testing will be done to show what will occur over time, 10-100 years, under freeze thaw cycles and acid rain conditions?

What is the post closure monitoring plan for the entire time that the toxins are trapped in the ash, how much will it cost per year? For how many years? Show all your math.

2.3

Question:

What is the chemistry of the interaction between WWTP sludge and incinerator ash?

(See: discussion of co disposal of ash and putrescible wastes and resulting increased metal solubility

440 / JOURNAL OF ENVIRONMENTAL ENGINEERING © ASCE / MAY 2003)

3.1.1

Question:

Why is there no discussion of the bridges that would be crossed on each route and substitute route?

Why is there no discussion of the rates High Accident Locations that would be involved if OCRR used the Onondaga County Landfill? Would the HAL rate for that be less than the HAL rate for using Cortland County Landfill.

4.1.2.1.2

Question:

What is the cost for the proposed transfer station, equipment, required new utilities, and all associated stormwater management construction and use and maintenance? Show all your math.

4.1.2.2

Question:

Why doesn’t NYS use the same designation as the EPA, and list the northern 2/3 of Cortland
County as the SOLE SOURCE AQUIFER?

See Cortland County Health Department letter of June 13,2014.

4.1.3.1.3

Question:

Why does the doc provide for storing putrescible wastes at the transfer station for up to 7 days. Wastes have most often begun to decay and putrify before they are even picked up at curb side. Storing these at the transfer station would be a source of odor.

What additional measures will be required to mitigate odors at the transfer station?

4.1.4.1.2, and 4.1.4.2.2, and 4.1.4.3

Question:

Missing is the discussion of how the McGraw Critical Environmental Area and McGraw’s Public Water Supply is just downhill from the landfill. Why?

This was brought up, in writing and spoken at the public hearing in Cortland for the Final Scope. It was ignored.

All landfill liners will leak in time, according to the EPA.

What mitigation measures will be required now that it is clear that McGraw’s Public Water Supply is just down hill from the dump and the creeks that drain the dump run past McGraw’s Public Water Supply?

4.2.2

Question:

Discuss why a poor, rural county is being targeted for a difficult to site facility, when a permitted, designed landfill in Onondaga County could instead be used as an ash monofil?

4.2.3

Question:

What ash monofils were used as comparison purposes? How many tons of incinerator ash were placed in each monofil that is used for comparisons? What mixed waste/comingled ash landfills were used for comparison?

What level of dissolved particulates are expected over time as the ash breaks down? What facilities are used for comparison on this?

4.2.4.1

Question:

Why were the June 13, 2014 Cortland County Health Department recommendations which were submitted for the Final Scope omitted from the Final Scope and DEIS

Extracted/copied here:

4.2.2 Water Resources

The text notes that the landfill is located within the recharge drainage area of the Cortland-Homer-Preble EPA Sole Source aquifer. The EPA designation explicitly shows the recharge area to be part of the Sole Source Aquifer designation. As such, any rule applying to the sole source aquifer also applies to this recharge area. This should be incorporated into evaluations performed under the EIS. Potential failure of the liner system should be considered and a monitoring and mitigation strategy should be developed. Public water supply systems and this Department should be included in the process.

4.2.7 Public Health

The scoping document fails to provide for the evaluation of the potential impacts on public health. The potential impact cannot be feasibly evaluated using findings of the most recent Community Health Assessment as proposed. A Health Impact Assessment is recommended. This type of evaluation, as recommended by the CDC in the reference attachment, should be used for a project of this magnitude. The document would go hand in hand with the EIS and consider health factors in all decisions.

WORKING TO BUILD A HEALTHY COMMUNITY SINCE 1929

Mr. Jeremy Boylan -2- June 13, 2014

A description of this process and protocols is described on the CDC’s website at:

http://www.cdc.gov/healthyplaces/relationship.htm

4.2.10.2

Question:

Why is this, many times, FOIL requested discussion of fiscal impacts, that should be here, ABSENT?

Question:

What is the impact on Cortland County and Onondaga County of any “Put or Pay “ clause that may be in the contract negotiations?

Extracted from: http://www.no-burn.org/downloads/Bad%20News%20for%20Recycling%20Final.pdf

United States: Lake County, Florida hunts for waste to meet tonnage obligations with an incinerator company.36 Under contract with the incinerator company Covanta, Lake County in Florida has agreed to deliver 163,000 tons of waste annually to the waste-to-energy plant located in Okahumpka. In return—and as long as the county delivers that amount of waste—it earns about US$ 580,000 a month in GAIA (Global Alliance for Incinerator Alternatives) | www.no-burn.org | October 2013 7 electric revenues given by the company Progress Energy, which buys the energy from Covanta. When the economic crisis hit the USA in 2008, waste production dropped, and the County had to consider importing waste from nearby counties to meet the supply obligations to the Covanta incinerator. A county solid waste manager was quoted in a local newspaper, "We're looking all around to find what waste we can. We're committed to succeeding because of the financial impact if we fail…not doing this will be very, very costly because of the [energy] revenue we get." While at least seven communities delivered their waste to the incinerator, the county barely met the tonnage required in 2009. The incinerator’s appetite is also undermining the local recycling program. "We don't want to turn off what we've turned on. But we're also not promoting recycling in a big way right now," the solid waste manager admitted.

United States: Covanta, the largest US incinerator company, tried to require Cape Cod communities to sign contracts guaranteeing 50% of waste would be delivered for incineration.

32

However, after the Massachusetts Sierra Club and Cape Cod zero waste advocates reminded towns that Massachusetts state law prohibits such “put-or-pay” contracts, Covanta dropped the put–or-pay requirement. The Cape Cod Commission's Regional Policy Plan established a 60% diversion goal of solid waste to composting/recycling from landfill and incineration by 2012, but Covanta’s proposed 50% waste requirement would have effectively capped recycling at 50%. With 20 towns in Massachusetts already diverting more than 50%—without organics diversion, in many cases—a goal much higher than 50% is clearly achievable for all Cape Cod towns.

…

Conclusion

Although incineration companies and supporting government officials consistently claim that the priority will be reducing and recycling even with an incinerator project, these examples show that it is often only a matter of time before a community with an incinerator realizes that these two strategies are incompatible. Even sincere intentions to prioritize recycling often fail in the face of financial pressure to burn resources in order to meet, for example, put-or-pay contracts or investment costs. For many communities, a centralized strategy like waste incineration—which is designed to treat all waste—may at first glance appear to be easier than a decentralized and multi-level zero waste strategy. Of course, once factors related to monitoring, pollution prevention and remediation, ash landfilling, health impacts, and sustainability are considered, the analysis shifts in favor of waste prevention and diversion over disposal. The fact is that zero waste strategies such as waste prevention, recycling, and composting create more jobs and are more flexible, less polluting, and more oriented to directly benefiting communities than incineration. Incineration is an obstacle to waste reduction, which is ultimately more environmentally and economically sustainable.

See this link <http://www.tadbir.ca/jaor/archive/v2/n1/jaorv2n1p62.pdf>

 Extracted :

Concluding remarks

Put-or-pay agreements are very important, since they give a stable stream of inputs to a project. For example, in waste management, the municipality often agrees to deliver a specified quantity of waste to a private owned and operated incinerator at a fixed price for a period of 5, 10, 15, or 20 years. From one side, in fact, the municipality can solve the issue of waste disposal since the private party builds, owns, operates, and maintains an incinerator under the municipality’s supervision. On the other side, the private party that invests in the plant has a stable flow of waste and, consequently, of income to repay the investment. However, since the quantity of waste produced by the community is variable, this commitment by the municipality can be very risky for the community. Thus, before signing this agreement a correct estimation of the risk borne by the community should be done. This paper presents a real option based model to accomplish this, and shows how an appropriate risk mitigation clause can change the risk. This is a very valuable tool for supporting the tricky decision-making process by the municipality in this context. In fact, the commitment of the municipality to a predefined quantity of waste and the consequent damage for the community could be a disincentive to reduce consumption and waste generation. This can, of course, be socially unacceptable. The municipality could, indeed, promote waste reduction and, simultaneously, form an “alliance” with other municipalities, or waste producers in the same area. This strategy would increase the probability of finding other users fulfilling the possible shortfall and the share of the possible gap that can be delivered by others.

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In the plume of groundwater contamination emitting from the Superfund site at the Cortland Landfill, what is the current level of each of these contaminants listed in Appendix l and ll?

eCode of Federal Regulations Title 40,Part 258, subpart G appendix l and ll:

## Appendix I to Part 258—Constituents for Detection Monitoring

|  |  |
| --- | --- |
| **Common name1** | **CAS RN2** |
| *Inorganic Constituents:* |  |
| (1) Antimony | (Total) |
| (2) Arsenic | (Total) |
| (3) Barium | (Total) |
| (4) Beryllium | (Total) |
| (5) Cadmium | (Total) |
| (6) Chromium | (Total) |
| (7) Cobalt | (Total) |
| (8) Copper | (Total) |
| (9) Lead | (Total) |
| (10) Nickel | (Total) |
| (11) Selenium | (Total) |
| (12) Silver | (Total) |
| (13) Thallium | (Total) |
| (14) Vanadium | (Total) |
| (15) Zinc | (Total) |
| *Organic Constituents:* |  |
| (16) Acetone | 67-64-1 |
| (17) Acrylonitrile | 107-13-1 |
| (18) Benzene | 71-43-2 |
| (19) Bromochloromethane | 74-97-5 |
| (20) Bromodichloromethane | 75-27-4 |
| (21) Bromoform; Tribromomethane | 75-25-2 |
| (22) Carbon disulfide | 75-15-0 |
| (23) Carbon tetrachloride | 56-23-5 |
| (24) Chlorobenzene | 108-90-7 |
| (25) Chloroethane; Ethyl chloride | 75-00-3 |
| (26) Chloroform; Trichloromethane | 67-66-3 |
| (27) Dibromochloromethane; Chlorodibromomethane | 124-48-1 |
| (28) 1,2-Dibromo-3-chloropropane; DBCP | 96-12-8 |
| (29) 1,2-Dibromoethane; Ethylene dibromide; EDB | 106-93-4 |
| (30) o-Dichlorobenzene; 1,2-Dichlorobenzene | 95-50-1 |
| (31) p-Dichlorobenzene; 1,4-Dichlorobenzene | 106-46-7 |
| (32) trans-1, 4-Dichloro-2-butene | 110-57-6 |
| (33) 1,1-Dichlorethane; Ethylidene chloride | 75-34-3 |
| (34) 1,2-Dichlorethane; Ethylene dichloride | 107-06-2 |
| (35) 1,1-Dichloroethylene; 1,1-Dichloroethene; Vinylidene chloride | 75-35-4 |
| (36) cis-1,2-Dichloroethylene; cis-1,2-Dichloroethene | 156-59-2 |
| (37) trans-1, 2-Dichloroethylene; trans-1,2-Dichloroethene | 156-60-5 |
| (38) 1,2-Dichloropropane; Propylene dichloride | 78-87-5 |
| (39) cis-1,3-Dichloropropene | 10061-01-5 |
| (40) trans-1,3-Dichloropropene | 10061-02-6 |
| (41) Ethylbenzene | 100-41-4 |
| (42) 2-Hexanone; Methyl butyl ketone | 591-78-6 |
| (43) Methyl bromide; Bromomethane | 74-83-9 |
| (44) Methyl chloride; Chloromethane | 74-87-3 |
| (45) Methylene bromide; Dibromomethane | 74-95-3 |
| (46) Methylene chloride; Dichloromethane | 75-09-2 |
| (47) Methyl ethyl ketone; MEK; 2-Butanone | 78-93-3 |
| (48) Methyl iodide; Idomethane | 74-88-4 |
| (49) 4-Methyl-2-pentanone; Methyl isobutyl ketone | 108-10-1 |
| (50) Styrene | 100-42-5 |
| (51) 1,1,1,2-Tetrachloroethane | 630-20-6 |
| (52) 1,1,2,2-Tetrachloroethane | 79-34-5 |
| (53) Tetrachloroethylene; Tetrachloroethene; Perchloroethylene | 127-18-4 |
| (54) Toluene | 108-88-3 |
| (55) 1,1,1-Trichloroethane; Methylchloroform | 71-55-6 |
| (56) 1,1,2-Trichloroethane | 79-00-5 |
| (57) Trichloroethylene; Trichloroethene | 79-01-6 |
| (58) Trichlorofluoromethane; CFC-11 | 75-69-4 |
| (59) 1,2,3-Trichloropropane | 96-18-4 |
| (60) Vinyl acetate | 108-05-4 |
| (61) Vinyl chloride | 75-01-4 |
| (62) Xylenes | 1330-20-7 |

1Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals.

2Chemical Abstract Service registry number. Where “Total” is entered, all species in the ground water that contain this element are included.

[70 FR 34555, June 14, 2005; 70 FR 44150, Aug. 1, 2005]

[ Back to Top](http://www.ecfr.gov/cgi-bin/text-idx?SID=350bb733a691f254b9fd49069b257794&node=pt40.25.258&rgn=div5#_top)

## Appendix II to Part 258—List of Hazardous Inorganic and Organic Constituents

|  |  |  |
| --- | --- | --- |
| **Common name1** | **CAS RN2** | **Chemical abstracts service index name3** |
| Acenaphthene | 83-32-9 | Acenaphthylene, 1,2-dihydro- |
| Acenaphthylene | 208-96-8 | Acenaphthylene |
| Acetone | 67-64-1 | 2-Propanone |
| Acetonitrile; Methyl cyanide | 75-05-8 | Acetonitrile |
| Acetophenone | 98-86-2 | Ethanone, 1-phenyl- |
| 2-Acetylaminofluorene; 2-AAF | 53-96-3 | Acetamide, N-9H-fluoren-2-yl- |
| Acrolein | 107-02-8 | 2-Propenal |
| Acrylonitrile | 107-13-1 | 2-Propenenitrile |
| Aldrin | 309-00-2 | 1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-(1,4,4a,5,8,8a)- |
| Allyl chloride | 107-05-1 | 1-Propene, 3-chloro- |
| 4-Aminobiphenyl | 92-67-1 | [1,1′-Biphenyl]-4-amine |
| Anthracene | 120-12-7 | Anthracene |
| Antimony | (Total) | Antimony |
| Arsenic | (Total) | Arsenic |
| Barium | (Total) | Barium |
| Benzene | 71-43-2 | Benzene |
| Benzo[a]anthracene; Benzanthracene | 56-55-3 | Benz[a]anthracene |
| Benzo[b]fluoranthene | 205-99-2 | Benz[e]acephenanthrylene |
| Benzo[k]fluoranthene | 207-08-9 | Benzo[k]fluoranthene |
| Benzo[ghi]perylene | 191-24-2 | Benzo[ghi]perylene |
| Benzo[a]pyrene | 50-32-8 | Benzo[a]pyrene |
| Benzyl alcohol | 100-51-6 | Benzenemethanol |
| Beryllium | (Total) | Beryllium |
| alpha-BHC | 319-84-6 | Cyclohexane, 1,2,3,4,5,6-hexachloro-,(1α,2α,3β,4α,5β,6β)- |
| beta-BHC | 319-85-7 | Cyclohexane, 1,2,3,4,5,6-hexachloro-,(1α,2β,3α,4β,5α,6β)- |
| delta-BHC | 319-86-8 | Cyclohexane, 1,2,3,4,5,6-hexachloro-,(1α,2α,3α,4β,5α,6β)- |
| gamma-BHC; Lindane | 58-89-9 | Cyclohexane, 1,2,3,4,5,6- hexachloro-,(1α,2α, 3β, 4α,5α,6β)- |
| Bis(2-chloroethoxy)methane | 111-91-1 | Ethane, 1,1′-[methylenebis (oxy)]bis [2-chloro- |
| Bis(2-chloroethyl)ether; Dichloroethyl ether | 111-44-4 | Ethane, 1,1′-oxybis[2-chloro- |
| Bis(2-chloro-1-methylethyl) ether; 2,2′-Dichlorodiisopropyl ether; DCIP, See footnote 4 | 108-60-1 | Propane, 2,2′-oxybis[1-chloro- |
| Bis(2-ethylhexyl) phthalate | 117-81-7 | 1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl)ester |
| Bromochloromethane; Chlorobromethane | 74-97-5 | Methane, bromochloro- |
| Bromodichloromethane; Dibromochloromethane | 75-27-4 | Methane, bromodichloro- |
| Bromoform; Tribromomethane | 75-25-2 | Methane, tribromo- |
| 4-Bromophenyl phenyl ether | 101-55-3 | Benzene, 1-bromo-4-phenoxy- |
| Butyl benzyl phthalate; Benzyl butyl phthalate | 85-68-7 | 1,2-Benzenedicarboxylic acid, butyl phenylmethyl ester |
| Cadmium | (Total) | Cadmium |
| Carbon disulfide | 75-15-0 | Carbon disulfide |
| Carbon tetrachloride | 56-23-5 | Methane, tetrachloro- |
| Chlordane | See footnote 5 | 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- |
| p-Chloroaniline | 106-47-8 | Benzenamine, 4-chloro- |
| Chlorobenzene | 108-90-7 | Benzene, chloro- |
| Chlorobenzilate | 510-15-6 | Benzeneacetic acid, 4-chloro--(4-chlorophenyl)--hydroxy-, ethyl ester. |
| p-Chloro-m-cresol; 4-Chloro-3-methylphenol | 59-50-7 | Phenol, 4-chloro-3-methyl- |
| Chloroethane; Ethyl chloride | 75-00-3 | Ethane, chloro- |
| Chloroform; Trichloromethane | 67-66-3 | Methane, trichloro- |
| 2-Chloronaphthalene | 91-58-7 | Naphthalene, 2-chloro- |
| 2-Chlorophenol | 95-57-8 | Phenol, 2-chloro- |
| 4-Chlorophenyl phenyl ether | 7005-72-3 | Benzene, 1-chloro-4-phenoxy- |
| Chloroprene | 126-99-8 | 1,3-Butadiene, 2-chloro- |
| Chromium | (Total) | Chromium |
| Chrysene | 218-01-9 | Chrysene |
| Cobalt | (Total) | Cobalt |
| Copper | (Total) | Copper |
| m-Cresol; 3-Methylphenol | 108-39-4 | Phenol, 3-methyl- |
| o-Cresol; 2-Methylphenol | 95-48-7 | Phenol, 2-methyl- |
| p-Cresol; 4-Methylphenol | 106-44-5 | Phenol, 4-methyl- |
| Cyanide | 57-12-5 | Cyanide |
| 2,4-D; 2,4-Dichlorophenoxyacetic acid | 94-75-7 | Acetic acid, (2,4-dichlorophenoxy)- |
| 4,4′-DDD | 72-54-8 | Benzene 1,1′-(2,2-dichloroethylidene) bis[4-chloro- |
| 4,4′-DDE | 72-55-9 | Benzene, 1,1′-(dichloroethenylidene) bis[4-chloro- |
| 4,4′-DDT | 50-29-3 | Benzene, 1,1′-(2,2,2-trichloroethylidene) bis[4-chloro- |
| Diallate | 2303-16-4 | Carbamothioic acid, bis(1-methylethyl)-, S- (2,3-dichloro-2-propenyl) ester. |
| Dibenz[a,h]anthracene | 53-70-3 | Dibenz[a,h]anthracene |
| Dibenzofuran | 132-64-9 | Dibenzofuran |
| Dibromochloromethane; Chlorodibromomethane | 124-48-1 | Methane, dibromochloro- |
| 1,2-Dibromo-3-chloropropane; DBCP | 96-12-8 | Propane, 1,2-dibromo-3-chloro- |
| 1,2-Dibromoethane; Ethylene dibromide; EDB | 106-93-4 | Ethane, 1,2-dibromo- |
| Di-n-butyl phthalate | 84-74-2 | 1,2-Benzenedicarboxylic acid, dibutyl ester |
| o-Dichlorobenzene; 1,2-Dichlorobenzene | 95-50-1 | Benzene, 1,2-dichloro- |
| m-Dichlorobenzene; 1,3-Dichlorobenzene | 541-73-1 | Benzene, 1,3-dichloro- |
| p-Dichlorobenzene; 1,4-Dichlorobenzene | 106-46-7 | Benzene, 1,4-dichloro- |
| 3,3′-Dichlorobenzidine | 91-94-1 | [1,1′-Biphenyl]-4,4′-diamine, 3,3′-dichloro- |
| trans-1,4-Dichloro-2-butene | 110-57-6 | 2-Butene, 1,4-dichloro-, (E)- |
| Dichlorodifluoromethane; CFC 12 | 75-71-8 | Methane, dichlorodifluoro- |
| 1,1-Dichloroethane; Ethyldidene chloride | 75-34-3 | Ethane, 1,1-dichloro- |
| 1,2-Dichloroethane; Ethylene dichloride | 107-06-2 | Ethane, 1,2-dichloro- |
| 1,1-Dichloroethylene; 1,1-Dichloroethene; | 75-35-4 | Ethene, 1,1-dichloro- |
| Vinylidene chloride cis-1,2-Dichloroethylene; cis-1,2-Dichloroethene | 156-59-2 | Ethene, 1,2-dichloro-(Z)- |
| trans-1,2-Dichloroethylene; trans-1,2-Dichloroethene | 156-60-5 | Ethene, 1,2-dichloro-, (E)- |
| 2,4-Dichlorophenol | 120-83-2 | Phenol, 2,4-dichloro- |
| 2,6-Dichlorophenol | 87-65-0 | Phenol, 2,6-dichloro- |
| 1,2-Dichloropropane | 78-87-5 | Propane, 1,2-dichloro- |
| 1,3-Dichloropropane; Trimethylene dichloride | 142-28-9 | Propane, 1,3-dichloro- |
| 2,2-Dichloropropane; Isopropylidene chloride | 594-20-7 | Propane, 2,2-dichloro- |
| 1,1-Dichloropropene | 563-58-6 | 1-Propene, 1,1-dichloro- |
| cis-1,3-Dichloropropene | 10061-01-5 | 1-Propene, 1,3-dichloro-, (Z)- |
| trans-1,3-Dichloropropene | 10061-02-6 | 1-Propene, 1,3-dichloro-, (E)- |
| Dieldrin | 60-57-1 | 2,7:3,6-Dimethanonaphth [2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aα,2β,2aα,3β,6β,6aα,7β,7aα)- |
| Diethyl phthalate | 84-66-2 | 1,2-Benzenedicarboxylic acid, diethyl ester |
| O,O-Diethyl O-2-pyrazinyl phosphorothioate; Thionazin | 297-97-2 | Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester. |
| Dimethoate | 60-51-5 | Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester |
| p-(Dimethylamino)azobenzene | 60-11-7 | Benzenamine, N,N-dimethyl-4-(phenylazo)- |
| 7,12-Dimethylbenz[a]anthracene | 57-97-6 | Benz[a]anthracene, 7,12-dimethyl- |
| 3,3′-Dimethylbenzidine | 119-93-7 | [1,1′-Biphenyl]-4,4′-diamine, 3,3′-dimethyl- |
| alpha, alpha-Dimethylphenethylamine | 122-09-8 | Benzeneethanamine, α,α-dimethyl- |
| 2,4-Dimethylphenol; m-Xylenol | 105-67-9 | Phenol, 2,4-dimethyl- |
| Dimethyl phthalate | 131-11-3 | 1,2-Benzenedicarboxylic acid, dimethyl ester |
| m-Dinitrobenzene | 99-65-0 | Benzene, 1,3-dinitro- |
| 4,6-Dinitro-o-cresol; 4,6-Dinitro-2-methylphenol | 534-52-1 | Phenol, 2-methyl-4,6-dinitro- |
| 2,4-Dinitrophenol | 51-28-5 | Phenol, 2,4-dinitro- |
| 2,4-Dinitrotoluene | 121-14-2 | Benzene, 1-methyl-2,4-dinitro- |
| 2,6-Dinitrotoluene | 606-20-2 | Benzene, 2-methyl-1,3-dinitro- |
| Dinoseb; DNBP; 2-sec-Butyl-4,6-dinitrophenol | 88-85-7 | Phenol, 2-(1-methylpropyl)-4,6-dinitro- |
| Di-n-octyl phthalate | 117-84-0 | 1,2-Benzenedicarboxylic acid, dioctyl ester |
| Diphenylamine | 122-39-4 | Benzenamine, N-phenyl- |
| Disulfoton | 298-04-4 | Phosphorodithioic acid, O,O-diethyl S-[2- (ethylthio)ethyl] ester |
| Endosulfan I | 959-98-8 | 6,9-Methano-2,4,3-benzodiox-athiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide, |
| Endosulfan II | 33213-65-9 | 6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro- 1,5,5a,6,9,9a-hexahydro-, 3-oxide, (3α,5aα,6β,9β, 9aα)- |
| Endosulfan sulfate | 1031-07-8 | 6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3,3-dioxide |
| Endrin | 72-20-8 | 2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aα, 2β,2aβ, 3α,6α,6aβ,7β,7aα)- |
| Endrin aldehyde | 7421-93-4 | 1,2,4-Methenocyclo-penta[cd]pentalene-5-carboxaldehyde,2,2a,3,3,4,7-hexachlorodecahydro- (1α,2β,2aβ,4β,4aβ,5β,6aβ,6bβ,7R\*)- |
| Ethylbenzene | 100-41-4 | Benzene, ethyl- |
| Ethyl methacrylate | 97-63-2 | 2-Propenoic acid, 2-methyl-, ethyl ester |
| Ethyl methanesulfonate | 62-50-0 | Methanesulfonic acid, ethyl ester |
| Famphur | 52-85-7 | Phosphorothioic acid, O-[4-[(dimethylamino)sulfonyl]phenyl]-O,O-dimethyl ester |
| Fluoranthene | 206-44-0 | Fluoranthene |
| Fluorene | 86-73-7 | 9H-Fluorene |
| Heptachlor | 76-44-8 | 4,7-Methano-1H-indene,1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro- |
| Heptachlor epoxide | 1024-57-3 | 2,5-Methano-2H-indeno[1,2-b]oxirene,2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a,-hexahydro-,(1aα,1bβ,2α,5α,5aβ,6β,6aα) |
| Hexachlorobenzene | 118-74-1 | Benzene, hexachloro- |
| Hexachlorobutadiene | 87-68-3 | 1,3-Butadiene, 1,1,2,3,4,4-hexachloro- |
| Hexachlorocyclopentadiene | 77-47-4 | 1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro- |
| Hexachloroethane | 67-72-1 | Ethane, hexachloro- |
| Hexachloropropene | 1888-71-7 | 1-Propene, 1,1,2,3,3,3-hexachloro- |
| 2-Hexanone; Methyl butyl ketone | 591-78-6 | 2-Hexanone |
| Indeno(1,2,3-cd)pyrene | 193-39-5 | Indeno[1,2,3-cd]pyrene |
| Isobutyl alcohol | 78-83-1 | 1-Propanol, 2-methyl- |
| Isodrin | 465-73-6 | 1,4,5,8-Dimethanonaphthalene,1,2,3,4,1 0,10-hexachloro-1,4,4a,5,8,8a hexahydro-(1α, 4α, 4aβ,5β,8β,8aβ)- |
| Isophorone | 78-59-1 | 2-Cyclohexen-1-one, 3,5,5-trimethyl- |
| Isosafrole | 120-58-1 | 1,3-Benzodioxole, 5-(1-propenyl)- |
| Kepone | 143-50-0 | 1,3,4-Metheno-2H-cyclobuta-[cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro- |
| Lead | (Total) | Lead |
| Mercury | (Total) | Mercury |
| Methacrylonitrile | 126-98-7 | 2-Propenenitrile, 2-methyl- |
| Methapyrilene | 91-80-5 | 1,2,Ethanediamine, N,N-dimethyl-N′-2-pyridinyl-N′-(2-thienylmethyl)- |
| Methoxychlor | 72-43-5 | Benzene, 1,1′-(2,2,2,trichloroethylidene)bis [4-methoxy- |
| Methyl bromide; Bromomethane | 74-83-9 | Methane, bromo- |
| Methyl chloride; Chloromethane | 74-87-3 | Methane, chloro- |
| 3-Methylcholanthrene | 56-49-5 | Benz[j]aceanthrylene, 1,2-dihydro-3-methyl- |
| Methyl ethyl ketone; MEK; 2-Butanone | 78-93-3 | 2-Butanone |
| Methyl iodide; Iodomethane | 74-88-4 | Methane, iodo- |
| Methyl methacrylate | 80-62-6 | 2-Propenoic acid, 2-methyl-, methyl ester |
| Methyl methanesulfonate | 66-27-3 | Methanesulfonic acid, methyl ester |
| 2-Methylnaphthalene | 91-57-6 | Naphthalene, 2-methyl- |
| Methyl parathion; Parathion methyl | 298-00-0 | Phosphorothioic acid, O,O-dimethyl |
| 4-Methyl-2-pentanone; Methyl isobutyl ketone | 108-10-1 | 2-Pentanone, 4-methyl- |
| Methylene bromide; Dibromomethane | 74-95-3 | Methane, dibromo- |
| Methylene chloride; Dichloromethane | 75-09-2 | Methane, dichloro- |
| Naphthalene | 91-20-3 | Naphthalene |
| 1,4-Naphthoquinone | 130-15-4 | 1,4-Naphthalenedione |
| 1-Naphthylamine | 134-32-7 | 1-Naphthalenamine |
| 2-Naphthylamine | 91-59-8 | 2-Naphthalenamine |
| Nickel | (Total) | Nickel |
| o-Nitroaniline; 2-Nitroaniline | 88-74-4 | Benzenamine, 2-nitro- |
| m-Nitroaniline; 3-Nitroaniline | 99-09-2 | Benzenamine, 3-nitro- |
| p-Nitroaniline; 4-Nitroaniline | 100-01-6 | Benzenamine, 4-nitro- |
| Nitrobenzene | 98-95-3 | Benzene, nitro- |
| o-Nitrophenol; 2-Nitrophenol | 88-75-5 | Phenol, 2-nitro- |
| p-Nitrophenol; 4-Nitrophenol | 100-02-7 | Phenol, 4-nitro- |
| N-Nitrosodi-n-butylamine | 924-16-3 | 1-Butanamine, N-butyl-N-nitroso- |
| N-Nitrosodiethylamine | 55-18-5 | Ethanamine, N-ethyl-N-nitroso- |
| N-Nitrosodimethylamine | 62-75-9 | Methanamine, N-methyl-N-nitroso- |
| N-Nitrosodiphenylamine | 86-30-6 | Benzenamine, N-nitroso-N-phenyl- |
| N-Nitrosodipropylamine; N-Nitroso-N-dipropylamine; Di-n-propylnitrosamine | 621-64-7 | 1-Propanamine, N-nitroso-N-propyl- |
| N-Nitrosomethylethalamine | 10595-95-6 | Ethanamine, N-methyl-N-nitroso- |
| N-Nitrosopiperidine | 100-75-4 | Piperidine, 1-nitroso- |
| N-Nitrosopyrrolidine | 930-55-2 | Pyrrolidine, 1-nitroso- |
| 5-Nitro-o-toluidine | 99-55-8 | Benzenamine, 2-methyl-5-nitro- |
| Parathion | 56-38-2 | Phosphorothioic acid, O,O-diethyl-O-(4-nitrophenyl) ester |
| Pentachlorobenzene | 608-93-5 | Benzene, pentachloro- |
| Pentachloronitrobenzene | 82-68-8 | Benzene, pentachloronitro- |
| Pentachlorophenol | 87-86-5 | Phenol, pentachloro- |
| Phenacetin | 62-44-2 | Acetamide, N-(4-ethoxyphenyl) |
| Phenanthrene | 85-01-8 | Phenanthrene |
| Phenol | 108-95-2 | Phenol |
| p-Phenylenediamine | 106-50-3 | 1,4-Benzenediamine |
| Phorate | 298-02-2 | Phosphorodithioic acid, O,O-diethyl S- [(ethylthio)methyl] ester |
| Polychlorinated biphenyls; PCBs | See footnote 6 | 1,1′-Biphenyl, chloro derivatives |
| Pronamide | 23950-58-5 | Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)- |
| Propionitrile; Ethyl cyanide | 107-12-0 | Propanenitrile |
| Pyrene | 129-00-0 | Pyrene |
| Safrole | 94-59-7 | 1,3-Benzodioxole, 5-(2- propenyl)- |
| Selenium | (Total) | Selenium |
| Silver | (Total) | Silver |
| Silvex; 2,4,5-TP | 93-72-1 | Propanoic acid, 2-(2,4,5- trichlorophenoxy)- |
| Styrene | 100-42-5 | Benzene, ethenyl- |
| Sulfide | 18496-25-8 | Sulfide |
| 2,4,5-T; 2,4,5-Trichlorophenoxyacetic acid | 93-76-5 | Acetic acid, (2,4,5- trichlorophenoxy)- |
| 2,3,7,8-TCDD; 2,3,7,8-Tetrachlorodibenzo- p-dioxin | 1746-01-6 | Dibenzo[b,e][1,4]dioxin, 2,3,7,8-tetrachloro- |
| 1,2,4,5-Tetrachlorobenzene | 95-94-3 | Benzene, 1,2,4,5-tetrachloro- |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | Ethane, 1,1,1,2-tetrachloro- |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | Ethane, 1,1,2,2-tetrachloro- |
| Tetrachloroethylene; Tetrachloroethene; Perchloroethylene | 127-18-4 | Ethene, tetrachloro- |
| 2,3,4,6-Tetrachlorophenol | 58-90-2 | Phenol, 2,3,4,6-tetrachloro- |
| Thallium | (Total) | Thallium |
| Tin | (Total) | Tin |
| Toluene | 108-88-3 | Benzene, methyl- |
| o-Toluidine | 95-53-4 | Benzenamine, 2-methyl- |
| Toxaphene | See footnote 7 | Toxaphene |
| 1,2,4-Trichlorobenzene | 120-82-1 | Benzene, 1,2,4-trichloro- |
| 1,1,1-Trichloroethane; Methylchloroform | 71-55-6 | Ethane, 1,1,1-trichloro- |
| 1,1,2-Trichloroethane | 79-00-5 | Ethane, 1,1,2-trichloro- |
| Trichloroethylene; Trichloroethene | 79-01-6 | Ethene, trichloro- |
| Trichlorofluoromethane; CFC-11 | 75-69-4 | Methane, trichlorofluoro- |
| 2,4,5-Trichlorophenol | 95-95-4 | Phenol, 2,4,5-trichloro- |
| 2,4,6-Trichlorophenol | 88-06-2 | Phenol, 2,4,6-trichloro- |
| 1,2,3-Trichloropropane | 96-18-4 | Propane, 1,2,3-trichloro- |
| O,O,O-Triethyl phosphorothioate | 126-68-1 | Phosphorothioic acid, O,O,O-triethyl ester |
| sym-Trinitrobenzene | 99-35-4 | Benzene, 1,3,5-trinitro- |
| Vanadium | (Total) | Vanadium |
| Vinyl acetate | 108-05-4 | Acetic acid, ethenyl ester |
| Vinyl chloride; Chloroethene | 75-01-4 | Ethene, chloro- |
| Xylene (total) | See footnote 8 | Benzene, dimethyl- |
| Zinc | (Total) | Zinc |

1Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals.

2Chemical Abstracts Service registry number. Where “Total” is entered, all species in the ground water that contain this element are included.

3CAS index names are those used in the 9th Cumulative Index.

4This substance is often called bis(2-chloroisopropyl) ether, the name Chemical Abstracts Service applies to its noncommercial isomer, propane, 2,2″-oxybis[2-chloro-(CAS RN 39638-32-9).

5Chlordane: This entry includes alpha-chlordane (CAS RN 5103-71-9), beta-chlordane (CAS RN 5103-74-2), gamma-chlordane (CAS RN 5566-34-7), and constituents of chlordane (CAS RN 57-74-9 and CAS RN 12789-03-6).

6Polychlorinated biphenyls (CAS RN 1336-36-3); this category contains congener chemicals, including constituents of Aroclor-1016 (CAS RN 12674-11-2), Aroclor-1221 (CAS RN 11104-28-2), Aroclor-1232 (CAS RN 11141-16-5), Aroclor-1242 (CAS RN 53469-21-9), Aroclor-1248 (CAS RN 12672-29-6), Aroclor-1254 (CAS RN 11097-69-1), and Aroclor-1260 (CAS RN 11096-82-5).

7Toxaphene: This entry includes congener chemicals contained in technical toxaphene (CAS RN 8001-35-2), i.e., chlorinated camphene.

8Xylene (total): This entry includes o-xylene (CAS RN 96-47-6), m-xylene (CAS RN 108-38-3), p-xylene (CAS RN 106-42-3), and unspecified xylenes (dimethylbenzenes) (CAS RN 1330-20-7).

[70 FR 34556, June 14, 2005; 70 FR 44150, Aug. 1, 2005]

Significance:

**SEQR 617.8 Scoping**

"(h) The project sponsor may incorporate information submitted consistent with subdivision 617.8(g) of this section into the draft EIS at its discretion. Any substantive information not incorporated into the draft EIS must be considered as public comment on the draft EIS."

**§617.9 Preparation and content of environmental impact statements**

(8) A final EIS must consist of: the draft EIS, including any revisions or supplements to it; copies or a summary of the substantive comments received and their source (whether or not the comments were received in the context of a hearing); and the lead agency's responses to all substantive comments. The draft EIS may be directly incorporated into the final EIS or may be incorporated by reference. The lead agency is responsible for the adequacy and accuracy of the final EIS, regardless of who prepares it. All revisions and supplements to the draft EIS must be specifically indicated and identified as such in the final EIS.

**617.7 Determining significance**

(c) Criteria for determining significance.

(1) To determine whether a proposed Type I or Unlisted action may have a significant adverse impact on the environment, the impacts that may be reasonably expected to result from the proposed action must be compared against the criteria in this subdivision. The following list is illustrative, not exhaustive. These criteria are considered indicators of significant adverse impacts on the environment:

(i) a substantial adverse change in existing air quality, ground or surface water quality or quantity, traffic or noise levels; a substantial increase in solid waste production; a substantial increase in potential for erosion, flooding, leaching or drainage problems;

(ii) the removal or destruction of large quantities of vegetation or fauna; substantial interference with the movement of any resident or migratory fish or wildlife species; impacts on a significant habitat area; substantial adverse impacts on a threatened or endangered species of animal or plant, or the habitat of such a species; or other significant adverse impacts to natural resources;

(iii) the impairment of the environmental characteristics of a Critical Environmental Area as designated pursuant to subdivision 617.14(g) of this Part;

(iv) the creation of a material conflict with a community's current plans or goals as officially approved or adopted;

(v) the impairment of the character or quality of important historical, archeological, architectural, or aesthetic resources or of existing community or neighborhood character;

(vi) a major change in the use of either the quantity or type of energy;

(vii) the creation of a hazard to human health;

(viii) a substantial change in the use, or intensity of use, of land including agricultural, open space or recreational resources, or in its capacity to support existing uses;

(ix) the encouraging or attracting of a large number of people to a place or places for more than a few days, compared to the number of people who would come to such place absent the action;

(x) the creation of a material demand for other actions that would result in one of the above consequences;

(xi) changes in two or more elements of the environment, no one of which has a significant impact on the environment, but when considered together result in a substantial adverse impact on the environment; or

(xii) two or more related actions undertaken, funded or approved by an agency, none of which has or would have a significant impact on the environment, but when considered cumulatively would meet one or more of the criteria in this subdivision.

(2) For the purpose of determining whether an action may cause one of the consequences listed in paragraph (1) of this subdivision, the lead agency must consider reasonably related long-term, short-term, direct, indirect and cumulative impacts, including other simultaneous or subsequent actions which are:

(i) included in any long-range plan of which the action under consideration is a part;

(ii) likely to be undertaken as a result thereof; or

(iii) dependent thereon.

(3) The significance of a likely consequence (i.e., whether it is material, substantial, large or important) should be assessed in connection with:

(i) its setting (e.g., urban or rural);

(ii) its probability of occurrence;

(iii) its duration;

(iv) its irreversibility;

(v) its geographic scope;

(vi) its magnitude; and

(vii) the number of people affected.

Comments Volume 2, 3, 4, 5 DEIS

Pam Jenkins

\*\*\*\*Re-do all GHG emission estimates based upon diversion rates of 10, 20, 40, 60 % of putrescible/compostable organics.\*\*\*\*Show all your math.

See: <http://www.calrecycle.ca.gov/Actions/Documents%5C77%5C20132013%5C900%5CMunicipal%20Solid%20Waste%20Thermal%20Technologies.pdf>

Potential Conflict with Recycling Goals

As noted above, MSW Thermal facilities have the potential to reduce GHG emissions compared

to landfilling of MSW. However, other waste options such as recycling, composting and

anaerobic digestion, and biomass conversion result in even lower GHG emissions. However,

there is not clear guidance on the extent of the efforts required to remove recyclable and

compostable materials from the MSW stream prior to MSW combustion. One concern

expressed is that the provision of incentives to MSW Thermal facilities could lead to increased

use of feedstocks that could otherwise go to recycling, composting, and/or anaerobic digestion

facilities. .

3.1 waste

Question:

 Specify the wastes being referred to here, will these wastes be co-mingled with ash?

What is the chemistry of the interactions between ash, sludge, and industrial wastes?

“The landfill facility will operate similarly to an ash monofill but will continue to accept WWTP sludge and some wastes generated in Cortland County not compatible with the WTE Facility, such as non-friable asbestos and select industrial wastes.”

See this from:

440 / JOURNAL OF ENVIRONMENTAL ENGINEERING © ASCE / MAY 2003

Carbonation of Municipal Solid Waste Incineration Fly Ash

and the Impact on Metal Mobility

Holger Ecke1

; Nourreddine Menad2

; and Anders Lagerkvist3

Conclusions

Carbonation of fly ash from municipal solid waste incineration

was investigated at a laboratory scale. It had a remedial effect and

is recommended for assessment at the pilot scale as a robust and

reliable pretreatment technique to meet landfill standards.

The availability of critical elements such as Pb and Zn was

reduced by two orders of magnitude. The partial pressure of CO2

had the largest influence toward reduced mobility followed by

time, water addition, and temperature.

Chromium was demobilized mainly due to the addition of

water while being remobilized with time probably because of

oxidizing conditions caused by atmospheric oxygen during treatment.

The latter calls for reducing environments during both treatment

and landfilling.

Future investigations should pay extra attention to Cd because

of its increased mobility during the treatment. To compensate for

this effect, other sequestering processes such as silicate formation

could be useful.

Extreme fly ash alkalinity was successfully remedied through

carbonation.

During landfilling, long-term fly ash stability relies on the

abundance of calcite. For a typical landfill in Sweden, decalcifi-

cation of carbonated fly ash was estimated at 0.13 mm•yr21 if

controlled by atmospheric CO2. Higher partial pressure of CO2,

as is probably caused by codisposal with putrescible refuse, increases

the decalcification rate.

When determining the organic content of MSWI fly ash, the

loss on ignition is erroneous by up to one order of magnitude

because of the impact of both mechanically and chemically bound waters.

``````

Question:

Where in NYS are ash monofills? (not used as daily cover)

Where in NYS is ash used as fill, co-mingled along with sludges, industrial waste, and the other wastes that are anticipated at the dump in Cortland landfill?

.

“Landfilling of WTE ash residue is common practice in the industry. Ash

residue is an approved beneficial use material for landfill daily cover.”

4.2

Question:

This assumes no failure of the groundwater suppression system. What happens if/when the groundwater suppression system fails?

” Pore Water Collection System

Part 360 requirements for both MSW landfills and ash monofills dictate a

five (5) foot separation to the seasonal high groundwater table from the bottom of

an ash monofill’s liner system. The original permit documents, including the

aforementioned Hydrogeologic Report (B&L, 1989), confirm that the separation is

insufficient. As such, a waiver was obtained as part of the original permit

application and a pore water collection system was constructed beneath the

entire West Side Landfill liner system to alleviate any pressure from groundwater.

*Cortland County Landfill Supplemental Engineering Report*

*331.112.001/10.14 - 6 - Barton & Loguidice, D.P.C.*

Since the entire permitted landfill liner system is already constructed with this

waiver for groundwater separation, it remains sufficient for use.”

5.1

Question:

Define “long term burial” It is not in Appendix D. What happens when the life time of the collection system is exhausted, fails?

“The structural integrity of the leachate collection piping has been

recalculated with the material properties of ash residue to ensure their integrity

through long-term burial in the landfill. Refer to Appendix D for these calculations.”

 See:

<http://www.gfredlee.com/Landfills/Postclosure_Cost_Issues.pdf>.

From: Review of Potential Impacts of Landfills & Associated Postclosure Cost Issues

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April 2012

the

present practice of cessation of assured postclosure care after a given number of years, irrespective

of the continued threat posed by the landfill ensures that the truly long-term post-postclosure care

costs will be borne not by the waste generators or the landfill owner, but by the public in the

vicinity of the landfill, in money and adverse impacts.

And: Post-Postclosure Funding. An issue that will need to be addressed is whether or not the

state/county administration has an understanding of long-term funding issues. From a public

health/environmental quality perspective, the period during which post-post-closure care will be

required for the landfills in may be indefinite; the issues that will inevitably need to be addressed

during the post-post-closure period at the closed landfills are enormous. The state/county/local

community should collect sufficient host fees during the landfill active life of the landfill to

establish a trust fund of sufficient magnitude to generate adequate annual interest during the postclosure

and post-post-closure period to enable the state/county to pay for post-post-closure care and

contingencies that will likely occur. This will place the financial responsibility for waste

management more on those who generate and deposit the wastes in the landfill and potentially less

on those who happen to reside in the county and area of the landfill for decades or centuries into the

future.

And:

For example, the California landfilling regulations, in theory, 13

obligate the landfill owner to provide post-closure care for as long as the waste in the landfill are a

threat to pollute groundwater, i.e., impair its use for domestic or other purposes. California has

recently adopted regulations that require landfill owners to provide post closure care funding for

100 years which can be extended.

Question:

Considering the above, how will fees be adjusted to provide financial assurance in the case of catastrophic failure of manmade barriers for as long as the threat to groundwater remains after closure and post-closure monitoring have ceased?

**9.0 Transfer Station**

**Question:**

**It appears that excess capacity (240 tons per day) is being built. How many truck trips per day to feed the transfer station 240 tons per day?**

**Explain.**

**What would be the costs associated with a 150 ton per day facility?**

9.1 Introduction

“The building and open parking area at the proposed Cortland County

Transfer Station (herein referred to as the facility) will be added to Permit No 7-

1122-00052/00007. Under the modified permit, the facility would be added to the

Cortland County Landfill site to accept and transfer up to 44,500 tons per year of

mixed MSW and/or C&D debris, as this is the same tonnage the landfill is

currently permitted to accept. It is anticipated that the facility would typically

accept between 25,000 and 35,000 tons per year, with a design capacity of up to

240 tons per day during the peak operating quarter.”

Question: What is the cost of the convenience station referred to below? Where is it? What are the associated costs? Does it already exist or will it be sited?

“Residents direct hauling waste will not access the transfer station

but will continue to dispose of waste at the residential convenience station

near the landfill. Waste from the convenience station will then be hauled to

the transfer station for loading onto transfer trailers for transport from the

site.

9.2.3

Question:

Be specific about trucks that will be used, will they guard against dripping ash along the route as has happened in the past?

“OCRRA’s fleet will be the primary transfer vehicles. The transfer

vehicles to be utilized may be roll off containers, dump trucks or transfer

trailers.”

.

9.3.1

Will several days to a week’s worth of exposed MSW be stored in the transfer station as described below?

“ A calculation of the facility’s loose (unprocessed) storage capacity demonstrates that up to1,200 tons of waste (approximately one weeks’ worth of waste receipts during the peak quarter) can be stored within the designated storage area.”

Appendix D :

Question: Appendix D calculates the site life to be 16.5 years if 95,000 tons of ash were deposited.

What is the site life reduced to if the non-ash (sludges, industrial, C and D, BUD etc) is included which is scheduled to be deposited in the landfill? Does this include additional wastes from Onondaga that require landfilling?

--------------------------------------------------------------------------------------------------------------------

DEIS Volume 3

4.4

Question: why is only one truck per week going to be randomly selected for inspection of the load?

How many trucks per week are expected at the facility?

9.1.3

Question: What will be done in the case of catastrophic failure of the groundwater suppression system?

What is the expected life of the groundwater suppression system/materials?

“*9.1.3 Groundwater Suppression System*

A subgrade drainage system (groundwater suppression system)

has been constructed beneath the landfill liner system throughout the

entire footprint to prevent groundwater from contacting the liner system.

10.7

Question:

What adjustments will be made to Financial Assurance considering Cortland has no experience dealing with a mostly ash landfill, risks of catastrophic failure. Show your math and assumptions.

 “Adjustments to Financial Assurance

Any adjustments to be made to closure and post-closure care cost

estimates and financial assurance documents will be reported.”

### Fiscal analysis: SHOW ALL YOUR MATH, not conclusory, unsupported statements.

### See this from SEQR Law §360-2.19 Financial assurance criteria.

(a) Applicability and effective date.

(1) The requirements of this section do not apply to owners and operators of landfills who are State or Federal government entities whose debts and liabilities are the debts and liabilities of a State or the United States.

(2) For municipal solid waste landfills that receive solid waste after October 9, 1993, the effective date of this section is April 9, 1997.

(3) A third party, for the purposes of this section, is a party who is neither a parent nor a subsidiary of the owner or operator.

(b) Financial assurance for closure.

(1) The owner or operator must have a detailed written estimate, in current dollars, of the cost of hiring a third party to close the largest active portion of the landfill requiring a final cover as required under section 360-2.15 of this Subpart at any time during the active life in accordance with the closure plan. This cost estimate must be approved by the department.

(i) At a minimum, the cost estimate must equal the cost of closing the largest active portion of the landfill requiring a final cover at any time during the active life when the extent and manner of its operation would make closure the most expensive, as indicated by its closure plan (see section 360-2.15 of this Subpart).

(ii) During the active life of the landfill, the owner or operator must annually adjust the closure cost estimate for inflation and submit a copy of the adjusted estimate to the department.

(iii) The owner or operator must notify the department and increase the closure cost estimate and the amount of financial assurance provided under paragraph (2) of this subdivision if changes in inflation, the closure plan, or landfill conditions increase the maximum cost of closure at any time during the remaining active life.

(iv) If approved by the department, the owner or operator may reduce the closure cost estimate and the amount of financial assurance provided under paragraph (2) of this subdivision if the cost estimate exceeds the maximum cost of closure at any time during the remaining active life of the landfill. The justification for the reduction of the closure cost estimate and a copy of the revised financial assurance documentation must be submitted to the department.

(2) The owner or operator of each landfill must establish financial assurance for closure of the landfill in compliance with subdivision (e) of this section. The owner or operator must provide continuous coverage for closure until released from financial assurance requirements by demonstrating compliance with section 360-2.15 of this Subpart.

(c) Financial assurance for post-closure care.

(1) The owner or operator must have a detailed written estimate, in current dollars, of the cost of hiring a third party to conduct post-closure care for the landfill in compliance with the final closure plan developed under section 360-2.15 of this Subpart. The post-closure cost estimate used to demonstrate financial assurance in paragraph (2) of this subdivision must account for the total costs of conducting post-closure care, including annual and periodic costs as described in the final closure plan over the entire post-closure care period. This post-closure care cost estimate must be approved by the department.

(i) At a minimum, the cost estimate for post-closure care must be based on the most expensive costs of post-closure care during the post-closure care period.

(ii) During the active life of the landfill and during the post-closure care period, the owner or operator must annually adjust the post-closure cost estimate for inflation and submit a copy of the adjusted estimate to the department.

(iii) The owner or operator must notify the department and increase the post-closure care cost estimate and the amount of financial assurance provided under paragraph (2) of this subdivision if changes in inflation, the post-closure plan, or landfill conditions increase the maximum costs of post-closure care.

(iv) If approved in advance by the department in writing, the owner or operator may reduce the post-closure cost estimate and the amount of financial assurance provided under paragraph (2) of this subdivision if the cost estimate exceeds the maximum costs of post- closure care remaining over the post-closure care period. The justification for the reduction of the post-closure cost estimate and a copy of the revised financial assurance documentation must be submitted to the department.

(2) The owner or operator of each landfill must establish, in a manner in accordance with subdivision (e) of this section, financial assurance for the costs of post-closure care as required under section 360-2.15 of this Subpart. The owner or operator must provide continuous coverage for post- closure care until released from financial assurance requirements for post- closure care by demonstrating compliance with section 360-2.15 of this Subpart.

(3) Unless otherwise specifically approved in advance by the department in writing, a trust fund or a solid waste management facility reserve fund must be established for post-closure care. The trust fund must be established in a manner that allows the department to direct the trustee to hire a third party to conduct post-closure care if the owner fails to comply.

(d) Financial assurance for corrective measures.

(1) An owner or operator of a landfill required to undertake corrective measures pursuant to section 360-2.20 of this Subpart must have a detailed written estimate, in current dollars, of the cost of hiring a third party to perform the corrective measures in accordance with the program required under section 360-2.20 of this Subpart. The cost estimate must account for the total costs of corrective measures as described in the plan for the entire corrective measures period. The cost estimate must be approved by the department.

(i) The owner or operator must annually adjust the estimate for inflation until the corrective measures are completed in accordance with section 360- 2.20 of this Subpart and submit a copy of the adjusted estimate to the department for approval.

(ii) The owner or operator must notify the department and increase the corrective measures cost estimate and the amount of financial assurance provided under paragraph (2) of this subdivision if changes in inflation, the corrective measures program, or landfill conditions increase the maximum costs of corrective measures.

(iii) If approved in advance by the department in writing, the owner or operator may reduce the amount of the corrective measures cost estimate and the amount of financial assurance provided under paragraph (2) of this subdivision if the cost estimate exceeds the maximum remaining costs of corrective measures. The justification for the reduction of the corrective measures cost estimate and a copy of the revised financial assurance documentation must be submitted to the department.

(2) The owner or operator of each landfill required to undertake corrective measures under section 360-2.20 of this Subpart must establish, in accordance with subdivision (e) of this section, financial assurance for the most recent corrective measures program. The owner or operator must provide continuous coverage for corrective measures until released from financial assurance requirements for corrective measures by demonstrating compliance with section 360-2.20 of this Subpart.

6.3

Question:

Where in the landfill are tires going to be disposed of, how much does this shorten the life of the landfill under flow control conditions?

Show all your math.

 Will tires be accepted from outside of Cortland County?

What fire prevention measures will be required?

“Disposal of tires will be permitted at the landfill facility but not landfilled

with other wastes. Tires will be accepted and stockpiled out of the active landfill

operations area. The tires will be either hauled to a recycling center or picked up

at the site by a tire recycling contractor. Tires will be disposed of when schedule

and budget permits.

6.7

Question:

Where in NYS are there co-mingled incinerator ash and MSW landfills?

Discuss how co-mingling these wastes increases the risk for fire and explosion.

6.7 Fires

The potential for landfill fires exists during placement of municipal solid

waste. The primary risk of fires at the site will arise from small amounts of

smoking or smoldering waste which is mixed with other combustible wastes

shipped to the landfill. This risk will be reduced by proper vigilance for hot or

burning items at the point of disposal. The risk for fires is reduced during ash

residue placement since the ash residue waste mass is inert and noncombustible.

*9.1.6 Disposal and Treatment*

*Question:*

*Will the leachate be tested for all of the toxins known to exist in incinerator ash? How often?*

*What level of degradation of the Tioghnioga River will be acceptable to the DEC?*

”Prior to hauling the leachate off-site, the tanker operator will check

the tanker to ensure all valves, hatches, etc., are closed and that the

tanker is ready for hauling. In addition, the operator will record the

approximate quantity of leachate being hauled in a log book.

Leachate will be hauled to the City of Cortland wastewater

treatment plant for treatment. The plant currently successfully handles all

leachate from the Cortland County Landfill and anticipates it can continue

to handle the leachate into the future. As a stipulation for disposing at the

treatment plant, analyses will be performed quarterly or more frequently as

required by the City of Cortland or Cortland County. The City of Auburn

WWTP serves as a backup treatment facility should the Cortland WWTP

not be able to receive leachate.”

9.4 Post-Closure Monitoring Program

Question:

What is the DEC determined post closure monitoring period referred to here, in years? The hazardous remain in the ash for as long as the ash persists. What are the implications for the Sole Source Aquifer.

*9.4.1 Environmental Monitoring Program*

“The environmental monitoring program, upon closure and postclosure

of the landfill facility, will be in accordance with the NYSDEC

Environmental Monitoring Plan. The monitoring program will be

implemented for a duration required by the NYSDEC. In addition, the

Leachate Management Plan, as described in Section 8.1, will continue for

a NYSDEC determined post-closure monitoring period.”

9.4.2.4 Leachate Outbreaks

Question:

Discuss the history of leachate outbreaks that have flooded neighboring properties. Discuss how groundwater is known to have infiltrated the cells.

“Leachate outbreaks may occur in certain situations.

Methods to minimize leachate outbreaks include stripping

intermediate cover. In addition, upon closure, the installation of the

cap system will provide further protection from leachate seeps. If a

leachate seep does develop despite the above protective

operational methods and closure containment layers, the area of

the seep will be excavated and a means of positive hydraulic

conveyance will be installed to ensure that the leachate enters the

*331.112.001/10.14 A-37 Barton & Loguidice, D.P.C.*

primary LCRS. The repaired seep area will be routinely inspected

to ensure that future seepage does not develop.

**16.0 Material Transfer and Disposal**

**Question:**

**For each county (Onondaga and Cortland) discuss how each part of each waste stream in each county will be handled and where it will be disposed of, including for special wastes, tires, industrial wastes, medical wastes, and anticipated new waste streams and revenue waste streams, nano materials, e-waste.**

**Discuss if any landfill space in Onondaga be used for any of Onondaga County’s generated wastes.**

“All material will be disposed of at the OCRRA WTE Facility, at the Cortland

County Landfill or the OCRRA Ley Creek Transfer Station (C&D Materials) or any other

previously approved disposal facility approved by the NYSDEC.”

Draft

Appendix C Contingency Plan

Question:

Discuss catastrophic failure of man-made engineered barriers.

DEIS Volume 4

**4.0 LFG Emissions Summary**

**Question:**

**Where is the discussion of PAH emissions from Ash and from transportation of ash?**

**Where is the discussion about the silica, metals, dioxins and furans that are trapped in the ash, and the increased hazardous nature of the PM 2.5 and PM 5 particulates?**

**5.0 Transportation**

**Question:**

**The OCRRA 2014 audit mentions landfilling the ash in Onondaga County as something that needs to be considered.**

**Where is the comparison for GHG if the Onondaga County landfill is used?**

**```````**

Comments SEQR requirements /lacking in DEIS

The Final Scope and DEIS failed to include these required elements as specified by SEQR Law and copied directly here from SEQR Law.

**§617.9 Preparation and content of environmental impact statements**

(5) The format of the draft EIS may be flexible; however, all draft EISs must include the following elements:

(i) a concise description of the proposed action, its purpose, public need and benefits, including social and economic considerations;

````

Final Scope and DEIS failed to *include* financial/ budget impact documents. These have continued to be concealed, FOIL requested.

(7) A draft or final EIS may incorporate by reference all or portions of other documents, including EISs that contain information relevant to the statement. The referenced documents must be made available for inspection by the public within the time period for public comment in the same places where the agency makes available copies of the EIS. When an EIS incorporates by reference, the referenced document must be briefly described, its applicable findings summarized, and the date of its preparation provided.

(8) A final EIS must consist of: the draft EIS, including any revisions or supplements to it; copies or a summary of the substantive comments received and their source (whether or not the comments were received in the context of a hearing); and the lead agency's responses to all substantive comments. The draft EIS may be directly incorporated into the final EIS or may be incorporated by reference. The lead agency is responsible for the adequacy and accuracy of the final EIS, regardless of who prepares it. All revisions and supplements to the draft EIS must be specifically indicated and identified as such in the final EIS.

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Absent from the Final Scope and DEIS:

(b) Environmental impact statement content.

(6) In addition to the analysis of significant adverse impacts required in subparagraph 617.9(b)(5)(iii) of this section, if information about reasonably foreseeable catastrophic impacts to the environment is unavailable because the cost to obtain it is exorbitant, or the means to obtain it are unknown, or there is uncertainty about its validity, and such information is essential to an agency's SEQR findings, the EIS must:

(i) identify the nature and relevance of unavailable or uncertain information;

(ii) provide a summary of existing credible scientific evidence, if available; and

(iii) assess the likelihood of occurrence, even if the probability of occurrence is low, and the consequences of the potential impact, using theoretical approaches or research methods generally accepted in the scientific community.

Final Scope and DEIS failed to address or incorporate recommendations of the Cortland County Health Department

### §617.14 Individual agency procedures to implement SEQR

### ``

(c) Agencies may find it helpful to seek the advice and assistance of other agencies, groups and persons on SEQR matters, including the following:

(1) advice on preparation and review of EAFs;

(2) recommendations on the significance or non-significance of actions;

(3) preparation and review of EISs and recommendations on the scope, adequacy, and contents of EISs;

(4) preparation and filing of SEQR notices and documents;

(5) conduct of public hearings; and

(6) recommendations to decisionmakers.

Final Scope and DEIS failed to address McGraw’s Critical Environmental Area as being the closest CEA, just down-hill from the dump.

 (g) A local agency may designate a specific geographic area within its boundaries as a critical environmental area (CEA). A state agency may also designate as a CEA a specific geographic area that is owned or managed by the state or is under its regulatory authority. Designation of a CEA must be preceded by written public notice and a public hearing. The public notice must identify the boundaries and the specific environmental characteristics of the area warranting CEA designation.

(1) To be designated as a CEA, an area must have an exceptional or unique character covering one or more of the following:

(i) a benefit or threat to human health;

(ii) a natural setting (e.g., fish and wildlife habitat, forest and vegetation, open space and areas of important aesthetic or scenic quality);

(iii) agricultural, social, cultural, historic, archaeological, recreational, or educational values; or

(iv) an inherent ecological, geological or hydrological sensitivity to change that may be adversely affected by any change.

```

Missing is the discussion of how the McGraw Critical Environmental Area and McGraw’s Public Water Supply is just downhill from the landfill.

This was brought up, in writing and spoken at the public hearing in Cortland for the Final Scope. It was ignored.

All landfill liners will leak in time, according to the EPA.

What mitigation measures will be required now that it is clear that McGraw’s Public Water Supply is just down hill from the dump and the creeks that drain the dump run past McGraw’s Public Water Supply?

**Please see all questions that were submitted for the Final Scope as these have not been addressed to date.**

Edited, Final scope comments of July 2014 being resubmitted for the DEIS comments because they were not included in the DEIS.

Fails to address Cortland County Health Dept recommendation that a Health Impact
Analysis be done.

Fails to address catastrophic failure possibility/probability.

Fails to address the Superfund site or plume of groundwater contamination emanating from it.

Fails to address McGraw’s Critical Environmental Area is just downhill from the project.

Fails to address historic, endangered and protected species of flora and fauna on adjoining properties.

Fails to address financials…this information has been concealed from the public, has been FOIL requested and denied.

Fails to include input from citizens.

Fails to correctly note that only 30 days of comment period were allowed from time Draft Scope was issued in mid-May, although it was requested for months in writing.

###the EAF misleads by failing to state that the Superfund site was, in FACT, a hazardous waste dump for decades.

Some glaring omissions:

Discuss how keeping the aging OCCRA incinerator burning MSW is contra to NYS Attorney General Eric Schneiderman’s comments concerning incineration.

Discuss how WTE is deemed not eligible for consideration as a Green Energy  per Attorney General Eric Schneiderman’s lawsuit against Covanta of August 19, 2011.

2.2.6          Green Facilities and Programs

Discuss how WTE is not sustainable because it results in the destruction of resources that could be recycled or composted

Discuss all aspects of the project and what the impacts to the area surrounding the incinerator, and Onondaga Nation and Onondaga County will be for all items listed in this document. What are the background soil and water levels for all chemicals and elements listed in Appendix 1 and 2, at the site at the OCCRA incinerator, in the closest waterbodies.

Discuss the State Superfund Site #712001. What was the extent of the investigation.  What was the extent of the remediation?  What is the extent of the continuing soil and groundwater contamination? Where is the underground plume of water contamination that is being emitted from the site? What are the background levels for all of the chemicals and elements listed in contaminants in the January 2014  Electronic Code of Federal Regulations Title 40:Protection of Environment PART 258 Subpart G-Financial Assurance Criteria, Appendix l to subpart 258 and Appendix ll to subpart 258,respectively list constituents of detection monitoring, and list of hazardous Inorganic and Organic Constituents:at the Superfund site, beneath the Superfund Site, at the proposed ash transfer site, at the perimeter of the landfill, in the closest wells, in all monitoring wells, upgradient from the landfill, downgradient from the landfill. Discuss plans to allow soil and groundwater contamination to be allowed to continue unabated or if remediation is planned.

Discuss how the high groundwater was accommodated for or artificially lowered by adding gravel to the landfill cells.

2.2.3.1.2           Landfill Liner System

Discuss the history of groundwater invading landfill cells.

Discuss the quantities of leachate that are trucked from the landfill.

Discuss how the Cortland wastewater treatment plant will determine the levels of elements and hazardous chemicals in the effluent that will be released into the Tioughnioga River.

Discuss what levels of degradation of the Tioughnioga will be deemed acceptable, for all contaminants in the January 2014  Electronic Code of Federal Regulations Title 40:Protection of Environment PART 258 Subpart G-Financial Assurance Criteria, Appendix l to subpart 258 and Appendix ll to subpart 258,respectively list constituents of detection monitoring, and list of hazardous Inorganic and Organic Constituents.

Discuss how OCCRA at times, failed to notify the DOH of exceedances of pollutants emitting from the stack.

Discuss that OCCRA self reports emissions.

2.2.4.1.3           Ash Residue Management

Discus the levels of contaminants that are in the ash for each of the contaminants listed in January 2014  Electronic Code of Federal Regulations Title 40:Protection of Environment PART 258 Subpart G-Financial Assurance Criteria, Appendix l to subpart 258 and Appendix ll to subpart 258,respectively list constituents of detection monitoring, and list of hazardous Inorganic and Organic Constituents.

This is different from the TCLP test results that only measure what leaches out after the ash is mixed with alkaline lime and water and then a weak acid is added that is not enough to counteract the effects of the lime.  For all times when the TCLP test is used, determine and specify what leaches out of the ash at each of these PH levels: 2, 4, 6, 8, 10.

3.2.3.1    Air Quality and Greenhouse Gas

Discuss how Onondaga would generate less greenhouse gas, less acid gas and fewer truck emissions if Onondaga County used the landfill within it’s borders for all disposal needs.

3.3.4          Public Health

Discuss that the incinerator has not had a Health Impact Assessment done per CDC protocols. There is no excuse for this. These need to be done in each county.

How many additional cases of cancer and disease will the Incinerator and ash dump be expected to cause under ideal operating scenarios and under cataqstropic failure scenarios.

Discuss the historic cancer clusters within Cortland County. Discuss McGraw’s cancer cluster.

Discuss epidemiological studies that are planned for the people who rely on groundwater from the EPA designated sole source aquifer and recharge zones.

Discuss the high rates of certain cancers in Onondaga in the area of the incinerator.

Discuss the epidemiological studies that have been done and that are planned for people living within 10 miles of the OCCRA incinerator. Especially, take into account prevailing wind patterns, inversions, seasonal precipitation.

Discuss the quantities of the contaminants listed in appendix 1 and 2  that are expected to be deposited on the nearest water bodies and farms, per year of the OCCRa incinerator operating at full permitted capacity.

January 2014  Electronic Code of Federal Regulations Title 40:Protection of Environment PART 258 Subpart G-Financial Assurance Criteria, Appendix l to subpart 258 and Appendix ll to subpart 258,respectively list constituents of detection monitoring, and list of hazardous Inorganic and Organic Constituents.

What is the baseline for each of these chemicals in the soil and in the groundwater in each of these locations: upgradient from the Superfund site, at the Superfund site, at the proposed ash transfer station site, at the site of the December 2013 leachate spill accident, at the landfill perimeter, in the neighbors’ wells for a 5 mile radius of the landfill, McGraw’s municipal wells, at the OCCRA facility, at the nearest waterbody, at the nearest agricultural land?

What is the baseline of each of these contaminants in the leachate that is collected from the landfill, in the effluent from the waste water treatment plant?

How often will the chemicals listed in the appendices 1 and 2 be monitored in the run-off that drains into the un-named creek that drains the landfill, in Mosquito Creek, in the leachate that goes to the wastewater treatment plant, and in the leachate  that is released from the wastewater treatment plant into the Tioughnioga River3.3.11.3                         Proposed Mitigation Measures

3.3.12   Hazardous Materials

Provide test results for each of the contaminants listed in appendix 1 and 2 for the fly ash from OCCRA. Not TCLP test, but actual levels of the contaminants, using best current, state of the art lab testing.

Provide test results for each of the contaminants listed in appendix 1 and 2 for the combined fly ash and bottom ash.  Not TCLP but actual levels of contaminants, using best, current state of the art lab tesing.

Discuss why hazardous materials should not be disposed of in the Sole source aquifer or recharge zone of the sole source aquifer.

Discuss what will be put in place to prevent Covanta or Occra from purchasing the Cortland County Landfill

For each of the following technologies, discuss in terms of 10,000 , 20,000, 50,000 and 100,000 tons of trash being processed using each technology.

7.7.1          Pyrolysis

7.7.2          Gasification

7.7.3          Mixed MSW Solid Waste Composting

7.7.4          Mechanical/Biological Treatment

7.7.5          Anaerobic Digestion

 10.0  Discuss all aspects of  liability for all damages that could result from the Ash for Trash Project into perpetuity.

Discuss who/what entity will be liable in the case of catastrophic failure of every aspect of the Ash for Trash Project and future landfill operations.

Discuss all financial assurance requirements for the Cortland landfill and Ash for Trash Project now and into the future. Give dollar amounts.

How will each of these waste streams from each Onondaga and Cortland Counties be controlled, and treated, where will they be deposited?

Wastewater treatment plant sludge from each county?

Special wastes?

Electronic wastes?

Construction and demolition wastes?

Nano particle containing wastes?

BUD of each category from each county?

Non hazardous medical waste?

Hazardous medical waste?

Compostable wastes?

Recyclables?

What new revenue streams are being planned or anticipated?

3.1.3.1

Air quality and Greenhouse Gas

OCCRA does not monitor PM 2.5 emissions.  Newer facilities are required to do this. Why isn’t OCCRA’s WTE required to use best, state-of-the-art equipment to decrease exposure to these emissions?

Would OCCRA be willing to take Cortland’s trash and to landfill the ash in Onondaga County? What would the charge to Cortland be for this option?

Amy Miller, OCCRA engineer wrote to me that there is a permitted designed landfill in Onondaga County that could be turned into an ash monofill within 18 months. Why hasn’t OCCRA pursued this option?

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What quantity of dioxions and furans and PM 2.5 are produced by OCCRA’s Jamesville facility?

How much is emitted into the air?

How much remains in the fly ash?

How rapidly will ash break down once exposed to acid rain, and release dioxins, furan, metals into the environment?

What percentage of these pass into the leachate?

Will the Cortland Wastewater Treatment Facility handle and destroy the dioxins and furans and metals in the leachate?

If any water leaves the landfill, not captured in the leachate collection system, will dioxins and furans and metals reach or aquifer and contaminate our water supply?

In the case of catastrophic failure of engineered barriers, what quantity of ash/water will flow off the landfill property?

**Liability**

Who will be liable in perpetuity for any and all damages to groundwater, aquifer, municipal water supply, soil, infrastructure, property values, public health that result from the Ash for Trash proposal?

What financial assurance will be put in place to cover catastrophic failure of man-made, engineered barriers? What are the dollar amounts that must be paid by Cortland ounty for the liability and financial assurance?

California requires monitoring of landfills for 100 years post closure, and the time period can be extended. What would be the cost of this for up to a 2 million ton ash landfill in the recharge zone of our landfill?

You can’t create a 2 million tons pile of an ash dump and walk away after the Dec required 30 years of monitoring. Monitoring must continue for as long as the hazards in the ash pose a risk to groundwater.

What will be the cost for this per year and per decade?

This is an incomplete document…Incomplete in scope and content as we testified to in Cortland and Onondaga County public hearings on the Final Scope.