

# Highland Creek Treatment Plant Neighbourhood Liaison Committee (HCTP NLC)

## Meeting # 20

Monday, March 29, 2010  
Highland Creek Treatment Plant Meeting Room  
51 Beechgrove Drive

7:00 p.m. – 9:00 p.m.

## FINAL Summary Notes

### Attendance

Frank Moir - Chair  
Desmond Vandenberg  
Allen Elias  
Clary Dias – Conservation Chair of CCRA

### City of Toronto:

Samir Demian – Manager of Highland Creek Treatment Plant  
Thomas Huang – City of Toronto Technical Services  
Ying Zheng – EH & S Compliance Field Representative, Toronto Water  
Maogosha Pyjor –City of Toronto Public Consultation Unit

### AGENDA

- |  |           |
|--|-----------|
| 1. Welcome and Introductions                   | 7:00 p.m. |
| 2. Review of Agenda and Summary Notes          | 7:10 p.m. |
| • September 14, 2009                           |           |
| 3. Plant Updates                               | 7:30 p.m. |
| • Odour Control Project                        |           |
| • Review Odour Complaints                      |           |
| • Incinerator Repairs                          |           |
| • Leakages                                     |           |
| • Stub stack use                               |           |
| 4. Capital Costs of Projects                   | 8:00 p.m. |
| 5. National Pollutant Release Inventory (NPRI) | 8:15 p.m. |
| • Chloroform and trichloroethylene information |           |
| 6. Other Business                              | 8:30 p.m. |
| 7. Next Meeting Agenda Items, Adjourn          | 8:50 p.m. |

## 1. Welcome and Introductions

**Maogosha Pyjor** called the meeting to order at 7:05 p.m. **Maogosha Pyjor** said that she would send a reminder email before the next meeting.

All participants introduced themselves. **Maogosha Pyjor** explained that she would be replacing Cheryl Dow from the City of Toronto Public Consultation Unit.

## 2. Review of Agenda and Summary Notes from September 14, 2009

**Frank Moir** reviewed the agenda and adopted it without amendments.

**Frank Moir** reviewed the minutes from September 14, 2009. The two action items from this meeting have both been completed: to add leakages and stub stack use to the agenda for today's meeting.

**Frank Moir** pointed out that there is a typo on page 4 in the second last paragraph; it should be treatment "plant" not "plan."

**Frank Moir** asked whether the statement made at the bottom of page 5 had been done: "By approximately early to mid December they hope to have the furnace operational." **Thomas Huang** said that the furnace has been operational since February. The delay was mainly due to the labour disruption last summer.

**Frank Moir** said that in the middle of page 6, there was a comment regarding bringing capital costs to the next meeting. **Thomas Huang** said this would be discussed later in the meeting.

**Frank Moir** asked whether the comment at the bottom of page 8 regarding he emissions data to be shared with the group in March would be done at today's meeting. **Samir Demian** said that the Plant would be presenting this data.

**Frank Moir** inquired about the spelling of chloroform vs. chlorphorm in the second paragraph on page 10 as well as other places in the minutes. He suggested that the correct spelling is chloroform.

The minutes were approved.

## 3. Plant Updates

- **Odour Control Project**

**Thomas Huang** explained that they are looking at replacing the existing headworks building and also putting in biofilters as well as odour remediation measures to reduce the odour emissions from the plant. They are also putting in

upgrades to the flotation building to treat the waste activated sludge through the new centrifuges. As part of the odour, air and noise emissions reduction program with the MOE, they are working on the incineration upgrade project, in which both incinerators are being fixed. The incineration project will also reduce the noise portion of the odour, air and noise emission reduction program. As noise reduction is also part of the total C of A program. The minor repair project was to fix one of the incinerators (#1) and make it more reliable for the next 4 or 5 years, so that the other incinerator could be fixed later. The proper term now used for the incinerators is biosolids thermal units.

**Thomas Huang** added that due to the age and the wear and tear of the existing equipment in the solids treatment building, the existing equipment is unreliable. The City's plan is to replace the electrical and HVAC system in the building, the biosolids dewatering centrifuges and to rehabilitate the biosolids thermal units. The biosolids thermal units (incinerators) were originally built around 1965 (later corrected to 1975) and have been running ever since. It has been patched up over the years but no major overhaul has been done.

**Samir Demian** said that they cannot make a final decision on some of these improvements, specifically the installation of a new fluidized bed incinerator, until they get approval from City Council. **Thomas Huang** explained that The Biosolids Residual Master Plan has been in council for several years. It deals with the sludge and residues from the water and wastewater plants. At this point, the plan has been approved for the Bay and Humber, but not for Highland Creek.

**Desmond Vandenberg** asked if the Biosolids Master Plan was revised, because he was under the impression that incineration was already approved for this plant. Plant staff informed the group that the City has not yet approved recommendations from the Biosolids Residue Master Plan for the Highland Creek plant because incineration is still considered not the preferred management option for biosolids. They are now looking at other options such as trucking out the biosolid waste either with a truck loading facility, railcars or some other means.

**Frank Moir** commented that there was a lot of public participation with the Biosolids Residual Master Plan and there were no objections on the use of incineration. The recommendation was to put in a fluidized bed. The public was shown a presentation on this by a group of experts and they supported the recommendation. He went on to ask why this has suddenly changed.

**Desmond Vandenberg** asked where the resistance to the draft plan is coming from. The draft plan was written a long time ago, possibly over 10 years ago.

**Thomas Huang** explained that other options are also being assessed. **Samir Demian** added that Councillors De Baeremaeker and Moeser came to the plant

for a tour to assess alternative ways of disposal of the biosolids, either by taking the material off-site by rail or road or by some other means

**Desmond Vanderberg** commented that the councilors should send representatives to the committee's meetings to explain their positions.

**Thomas Huang** asked for clarification from the committee members as to whether or not they had any objections with the existing biosolids treatment process. **Frank Moir** explained that the committee thinks that incineration is a much better technology than the other options. It was presented to the public as being the recommended solution and the committee supports this.

**Maogosha Pyjor** reiterated that it would be helpful to have a representative from the city councilors at the meetings for clarification.

**Thomas Huang** explained that only certain parts of the Biosolids Master Plan were approved. **Frank Moir** commented that this is an unusual situation, which does not make much sense. He pointed out that there is still a certificate for the plant to have another incinerator.

**Frank Moir** asked if the odour control project was still moving along according to the plan. **Thomas Huang** replied that they are currently undergoing preliminary designs with the consultants, Aecom. They plan to have the odour control and headworks facility out for tender by the end of spring 2011. It will likely be a 4 to 5 year contract and will include for the construction of a new Headworks building.

**Desmond Vandenberg** asked if the project was going to be funded and **Thomas Huang** replied that yes it was. He added that he could not divulge the exact amounts for each individual project because it is currently confidential information. He went on to explain that there are various projects under design or ready for construction: the floatation building upgrades, which will be tendering in a few of months; the biosolids repair project, which will be tendering in early 2011; and the headworks odour control, which will be tendering in 2011. Another project on the horizon is the phase 7 capacity upgrade. **Thomas Huang** said that the estimated cost for all of this work over the next 5 or 6 years is 300 million dollars.

**Allen Elias** asked if this 300 million dollar budget has been approved. **Thomas Huang** said that this budget is over various capital accounts. **Allen Elias** asked if the fluidized bed incinerator is included in the budget. **Thomas Huang** explained that because council has not yet approved it, the fluidized bed is not included in the budget.

**Frank Moir** inquired as to how long the second thermal unit would be shut down during the major repairs. **Samir Demian** said that it would be shut down for 2 years while they are repairing the other one. Since there will be no backup

during these repairs, there will be contingency plans in place in the event of an emergency. **Thomas Huang** explained that the reason they did the minor repair contract on BTU number 1 is so that it can be used with increased reliability during the major repairs. **Samir Demian** said that if there is a problem, the plant has the capacity to keep the sludge in the system for a maximum of four days. **Thomas Huang** added that they would also be putting in a storage silo into the major repair as a contingency plan in the event that neither BTU's are available for a short time.

**Allen Elias** asked about why the city councillors want to truck the sludge out of Highland Creek. **Thomas Huang** said that it is because that is what they are doing at the Ashbridges Bay Treatment Plant for years and the services are all in place. **Frank Moir** pointed out that the solution for one plant might not necessarily be the best solution for this plant. **Thomas Huang** added that the problem is that there will always be someone against the burning of sludge. However, **Samir Demian** explained that if there is a good scrubbing system, there are very few problems with incineration.

**Frank Moir** wondered why the plant is building new centrifuges to feed the thermal units if the thermal units will no longer be needed for incineration. **Thomas Huang** explained that the centrifuges could also be used to feed the silos that feed the trucks to take the sludge off the site, if that is what ends up happening. The centrifuges will fit either solution and will last a very long time.

**Allen Elias** asked whether the terrible odour that was present 30 years ago was mitigated with the addition of better scrubbers. **Thomas Huang** explained that 30 years ago, they were still heat-treating the sludge by putting it into thermal conditioning reactors, where the sludge was cooked at high temperatures, which caused a strong odour. **Samir Demian** added that the process of thickening the sludge would further decrease the odour problems. Furthermore, odours from the secondary process should not be a major issue because the 16 aeration tanks are all inside enclosures.

**Allen Elias** asked what the benefits would be to truck the sludge out through the neighbourhood. **Samir Demian** said that the councillors' intention seems to be to protect the environment and there are negative associations with incineration, because it is thought to cause more damage; which is why they are looking into trucking the sludge out. There was a brief discussion about the fact that incineration, if done properly is less detrimental to the environment than trucking the material out.

**Samir Demian** said that when the City Councilors visited the plant, they wanted to see alternative plans that focus on removing the biosolids material using the railways or the roads. **Frank Moir** said that the advice given by the experts who review the Master Plan should be considered.

**Frank Moir** said that it is important to have a discussion with the local City Councillors: Councillor Moeser, Councillor De Baseromaeker, and possibly Councillor Ainslie. **Allen Elias** agreed with this suggestion.

ACTION ITEM #1: **Maogosha Pyjor** and **Frank Moir** to arrange a meeting with the City Councillors and the HCTP Neighbourhood Liaison Committee

- **Review of Odour Complaints:**

**Ying Zheng** reported that in 2009, there were only two odour complaints. Whenever the complaints came in, the plant technicians did all of the required investigations. The proper forms were filled out and faxed to the MOE. Overall, the odour complaint process is working.

**Thomas Huang** asked the residents of the area if they have noticed an improvement with the odour over the last few years.

**Desmond Vandenberg** said that in 2006 or 2007 the odours were really bad and he has noticed a definite improvement since then. However, he added that the number of odour complaints should not be used as a complete assessment of the odour quality. Most residents don't bother to call in their complaints because they don't think that anything will be done. Furthermore, most people don't know the number that they should call in the event that they have an odour complaint because this number is not readily available to them. The number should be published in community newsletters. The number to call for complaints is 311.

**Allen Elias** said that 30 years ago there were a lot of odour problems. He has noticed that over the last few years, odours have become almost a non-issue.

**Samir Demian** said that in 2006 there were 26 odour complaints between June and the end of the year. This was when there were significant problems with the plant. Since this time, odours have been much less of a problem. **Thomas Huang** added that once the odour control project is completed there should be even less of an odour problem.

- **PRESENTATION**

**Ying Zheng** gave a PowerPoint presentation on the use of the stub stack incinerator and emission compliance of 2009. She discussed the use of the incinerator stub stack: (1) in emergency situations (such as power failure or mechanical failure, which could result in a spill); (2) during the planned shutdown of the incinerator; (3) in the event of leakage from the stub stack during normal operations.

### Questions During the Presentation:

**Frank Moir** asked if the material still goes through the scrubbers when the stub stacks are used. **Ying Zheng** replied that no, it does not; it goes straight from the incinerator through to the stub stacks.

**Frank Moir** asked if the reliability of the power supply at Highland Creek is less than at the other plants. **Ying Zheng** replied that even a very short disruption in power would affect the ID fan. **Samir Demian** explained that for some time, the plant had an unusual number of power failures. Once they started meeting on a regular basis with a representative from the hydro company and expressing the pressure from the Ministry of the Environment, the hydro supply has been more consistent. **Frank Moir** pointed out that another way to address the problem would be to establish alternative feeds, but this would cost more money.

**Clary Dias** asked if there have been any power failures so far in 2010. **Ying Zheng** said that she does not think there have been any. She double-checked after her presentation and confirmed that there have been no power failures to date.

**Frank Moir** inquired about the difference between normal incineration and the incineration that occurs during an emergency situation. **Ying Zheng** clarified that the bypass damper is closed during normal operations; during the emergency the emergency damper is open. Source testing of the stub stacks is done under normal conditions, i.e. when the damper is closed.

**Ying Zheng** said that source testing of the main stack is required every year under the C of A. Currently, the concentrations of the emissions are all within the limits.

**Desmond Vandenberg** pointed out that there must be variation over the course of the year. **Ying Zheng** said that certain conditions must be met and the incinerator must be operating under normal conditions when the tests are performed. **Samir Demian** added that the tests are very expensive and they cannot do them more than once per year. By monitoring the temperature they can ensure that things are working properly.

**Allen Elias** asked if this recent test was the first monitoring done since the minor repair improvements. **Thomas Huang** replied that it was. **Samir Demian** said that in 2006 and 2007 the levels were much higher.

**Desmond Vandenberg** and **Frank Moir** asked if the staff could provide a chart describing the trends of emissions over the last few years. **Ying Zheng** said that this could be provided.

**Ying Zheng** gave some of the emission numbers from previous years (*Note: the unit of measurement used is micrograms per cubic metre*):

- 2008:
  - Mercury for the main stack= 40.5 (the limit for Mercury is 70)
  - Mercury for the stub stack = 64.4
  - Dioxin and Furan (D&F) for the main stack = 54.6 (the limit is 100)
  - Dioxin and Furan (D&F) for the stub stack = 361
- 2009:
  - Incinerator No.1
    - Mercury for the main stack= 35.9
    - Mercury for the stub stack = 45.8
    - Dioxin and Furan (D&F) for the main stack = 8.24
    - Dioxin and Furan (D&F) for the stub stack = 18.6
  - Incinerator No.2
    - Mercury for the main stack= 49.5
    - Mercury for the stub stack = 53.6
    - Dioxin and Furan (D&F) for the main stack = 16.4
    - Dioxin and Furan (D&F) for the stub stack = 6.17

ACTION ITEM #2: Staff to provide a graph showing the Canada Wide Standards (CWS) (D&F and mercury) emission test result trends over the past 3 to 5 years.

**Ying Zheng** explained that the reason the 2008 levels were so much higher was due to the temperature of the incinerator. The incinerator was not hot enough in 2008 during the testing. In 2009, the incinerator was operating at a proper temperature when the breaching temperature was maintained above 650 °C.

**Frank Moir** asked if the temperature is measured continuously and whether these numbers could be published to let the residents know how well the plant is operating. **Ying Zheng** said the temperature was monitored regularly and the information could be compiled and presented to the committee as a graph.

ACTION ITEM #3: Staff to provide a graph showing the breaching temperature of the incinerator measured at regular intervals.

**Desmond Vandenberg** asked whether there were other factors that might vary through the year that would make the once-a-year emission test less of an accurate reflection of the overall yearly emissions. **Samir Demian** explained that as far as the operation of the plant, temperature is the best indicator. **Samir**

**Demian** also said that the TW Environmental Monitoring & Protection Unit is also monitoring certain industrial sectors that are potential discharge of high levels of mercury to the sewage system and assisting in remediation measures. This is anticipated to reduce the amount of mercury in the sewage entering the plant.

**Ying Zheng** said that in 2008, a comprehensive source testing was done to measure various parameters. At this time, everything was below the allowable limits. Every 2 years, this comprehensive source testing is done.

**Thomas Huang** clarified that the incinerator at Highland Creek started in 1975 not 1965 as he had stated previously in the meeting. Before this time, he believes that the sludge might have been stored somewhere on the site.

**Desmond Vandenberg** said that before the meeting, he looked on the Internet at some of the source testing numbers from the past 6 years. He noticed that carbon monoxide (in 2008) was 271 tones, which was the highest level it has been over the 6 years. Also, the particulate count was higher in 2008 than it had been over the last 6 years. **Ying Zheng** said that she would request this information from the Engineer at the Head office who is responsible for the NPRI reporting and provide more details on these values at the next meeting. She explained that after the source testing is done, a model is running to assess the point of impingement. At this time, she knows that all the parameters (2008) are within normal limits.

**Desmond Vandenberg** said that it would be helpful to know what the quantity of these pollutants currently is, and whether or not something is being done.

ACTION ITEM #4: Staff to provide details on CO and PM values in 2008 and the current data (2009) if available.

**Frank Moir** pointed out that in the annual report of 2008, the influent to the plant was 6% higher in 2008 than it was in 2007. Perhaps some of the pollutant data could be explained by this significant increase.

- **Incinerator repairs**

**Thomas Huang** said that it would take about three to four years to complete the incinerator repairs. It should take about a year and a half to two years to complete each unit. The design phase for this project is currently being completed. Part of this project also includes demolishing the existing sludge thermal conditioning reactors and other obsolete equipment in order to make room for the new equipment as well as replacing and relocating all electrical equipment in the solids treatment building and installing new sludge dewatering centrifuges. This is all part of the major contract.

#### 4. Capital Costs of Projects

**Thomas Huang** said that overall, the cost would be around a total of \$300 million dollars for the majority of the capital projects over the next five or six years.

#### 5. National Pollutant Release Inventory

**Frank Moir** noted that this information was discussed earlier in the meeting.

#### 6. New Business

**Maogosha Pyjor** received an email from Jim Wakefield who could not be at the meeting, but wanted his concerns to be raised. She read the email to the committee: "My concern is with the possibility of significant local truck traffic that would result from any plan to remove biosolid waste from the plant on a regular ongoing basis. The city needs to be aware of the impact of such traffic with its noise, vibration, odour and safety issues, will have on the neighbourhood. This issue needs to be fully researched and discussed with the community before any such plans are implemented."

**Maogosha Pyjor** and **Frank Moir** will organize a meeting with the councilors to discuss the issue of trucking biosolids from the plant.

**Frank Moir** asked the staff when the annual report for 2009 would be available. **Ying Zheng** said that the Ministry requires the report by the end of March. **Samir Demian** said that they would forward the report to the members of the committee once it is available. **Frank Moir** requested that the report be sent to him as a hard copy by mail; **Desmond Vandenberg** and **Allen Elias** requested that the report be sent to them electronically by email.

ACTION ITEM #5: The staff will send copies of the Highland Creek annual report to members of the committee.
---

#### 7. Next Meeting Agenda Items, Adjourn

**Allen Elias** said that the next meeting could be in 6 months, but it is important that the City Councilors are involved with the next meeting.

Next Meeting: **Monday September 20, 2010 at 7:00 p.m.**

The meeting was adjourned at 8:45 p.m.