



**HIGHLAND CREEK TREATMENT PLANT (HCTP)
Neighbourhood Liaison Committee (NLC)**

**Meeting #14
Thursday, April 12, 2007**

**Highland Creek Treatment Plant Meeting Room
51 Beechgrove Drive**

Meeting: 7:00 p.m. to 8:45 p.m.

DRAFT SUMMARY NOTES

ATTENDANCE

Residents

Francis Chang, Community Co-Chair
Susan Mason
Bill Mason
Colin Smith, Earth Tech
Cheda Ropcalic, Earth Tech
William (Bill) F. Sheehan
Allan Elias
Calum MacMillan, Assistant to Councillor Moser
Desmond Vandenberg
Maria Vandenberg

City of Toronto

Anthony Pigaidoulis, Engineer
Clarito Gonzales, Senior Engineer
Nancy Martins, Public Consultation Unit
Ying Zheng, Environmental Health & Safety Field Representative

Kate Powadiuk, Note Taker

AGENDA

1. Welcome and Introductions 7:00 p.m.
 - Community Co-Chair, Francis Chang
2. Review of Agenda and Summary Notes 7:05 p.m.
 - May 1, 2006
3. Plant Updates 7:10 p.m.
 - Odour Assessment Study Update
 - Odour Complaints
 - Stack Emissions Testing 2005 & 2006
 - Biosolids Management
 - In-house Projects
4. Other Business 8:10 p.m.
5. Next Meeting Agenda Items, Adjourn

1. INTRODUCTIONS

Francis Chang, Community Co-Chair, called the meeting to order at 7:00 p.m. All participants present introduced themselves.

Nancy Martins explained that Martin Shigeishi, formerly Plant Manager at Highland Creek Treatment Plant (HCTP), has been seconded to another position and is now Manager of Operations Coordination. Samir Demian, formerly the Plant Manager at the Humber Treatment Plant, has been the HCTP Plant Manager since June 2006.

2. REVIEW OF AGENDA AND SUMMARY NOTES

It was recommended that the minutes be adopted with one correction: adding Don York's name to May 1, 2006 minutes in the Attendance section. The motion was seconded and the minutes from May 1, 2006, were adopted with the correction.

3. PLANT UPDATES

Anthony Pigaidoulis provided an overview of the Highland Creek Treatment Plant (HCTP) activities. The following topics were reviewed:

- Solids Treatment
- Regulatory Compliance and Reporting
- Ontario Regulation 419/05
 - Air Pollution – Local Air Quality
 - Reduction in Point of Impingement (POI) by Jan 1, 2010
 - Summary of POI Compliance for HCTP, Main Stack
 - % of POI Standard – 2005 vs 2006, HCTP Main Stack
- Canada Wide Standard (CWS), Dioxins and Furans, Mercury, HCTP 2006
- National Pollutant Release Inventory (NPRI)
- HCTP Capital Project Planning
- Draft Biosolids and Residuals Master Plan

Please see Attachment A for a copy of the presentation.

Questions/Comments

Bill Sheehan asked if regulations were getting more stringent. He asked if the Ministry of the Environment (MOE) is moving from emission testing to modelling, thus implying that standards are getting more lax. He wondered if Anthony Pigaidoulis had said in the presentation that there was a new standard imposed by federal government that requires emission testing. **Anthony Pigaidoulis** clarified that the federal standard is for dioxins, furans and mercury and testing of these parameters is required by the MOE for all sewage sludge incinerators. **Bill Sheehan** asked if testing only happens once a year. **Anthony Pigaidoulis** responded that was correct for the dioxins, furans and mercury according to the Canada Wide Standard for in stack concentrations.

Bill Sheehan asked if Anthony Pigaidoulis could define beneficial use of biosolids. **Anthony Pigaidoulis** replied that beneficial use in a general sense refers to the recycling of biosolids material in a regulated manner. For example, it could be used as soil amendment as biosolids cake or pellets, but there are many other types of beneficial

uses. Currently, there is an intended 100% biosolids beneficial use program at Ashbridges Bay, and biosolids are sent to agricultural land and eventually will produce pellets. The contingency plan is landfilling. At Highland Creek biosolids are incinerated in a multiple hearth furnace and the ash is sent to landfill.

A meeting participant asked what was the standard adopted by the MOE regarding mercury dioxins, and furans. **Anthony Pigaidoulis** responded that it is the Canada Wide Standard endorsed by the Canadian Council of Ministers of the Environment and has been adopted by ten provinces including the Ontario Ministry of the Environment.

Allan Elias said that there have been more instances of odour in the last ten days than in previous years. He asked what the reason was for the odour. **Anthony Pigaidoulis** advised attendees to call the plant control room and/or the MOE Spills Action Centre to make a complaint when they noticed odours from the plant. He said that every time a complaint is made to the MOE, they will investigate. In November, 2006, over a two week period there were fifteen complaints. Abnormal weather and wind patterns can affect odour. At the plant general maintenance does occur, which means that sometimes plant staff need to have doors open for a brief period which may cause an increase in odour. However, he could not give a reason for any odour in the last ten days. **Francis Chang** asked if there had been an increased number of complaints about odour recently. **Anthony Pigaidoulis** responded that there had not been an increase in complaints recently or since the beginning of 2007.

Francis Chang asked what the funding was for the two projects referred to in the presentation: refurbishing of the incinerator and the odour control project. **Anthony Pigaidoulis** replied that refurbishing the incinerators has an estimated capital investment of \$12 million and phase one of the odour control project is estimated to be \$9 million. He stated that in addition to the two projects mentioned in the presentation there were other important projects happening at the plant. Firstly, a security upgrade is planned to commence in the next month to upgrade the plant buildings with card readers, more cameras, better fencing, etc. Secondly, the waste activated sludge thickening & dewatering project will include installing two dewatering centrifuges.

Francis Chang asked who makes the decision for refurbishing the incinerator. **Anthony Pigaidoulis** replied that this project has been initiated by Toronto Water staff to refurbish the aging units. .

Francis Chang asked when the Biosolids and Residuals Master Plan will go forth. **Anthony Pigaidoulis** replied that it has been in draft form since 2004. He encouraged people to comment on it as it is still open for public comments. He could not comment on the date when it would go forward to Council, but mentioned that the peer review of the draft Master Plan would be initiated this year.

Francis Chang circulated an article from the April 12, 2007 Toronto Star that focused on an energy from waste test facility in Ottawa for solid waste.

Maria Vandenberg asked for clarification on whether the 9 million dollars referred to in Anthony's presentation was part of the 12 million dollars also referred to in the presentation. **Anthony Pigaidoulis** clarified that these were for two different projects and separate monies. The odour assessment has an estimate of 9 million dollars for phase one. For the incinerator refurbishment project, the 12 million dollars mentioned is

an estimate.

Maria Vandenberg asked about the cost of the biofilters to contain odours. **Anthony Pigaidoulis** replied that it is included within the phase one amount of 9 million dollars and he was unaware of what their exact cost is.

Anthony Pigaidoulis briefly explained the difference between a multiple hearth incinerator and fluidized bed incinerators. The multiple hearth technology similar to a rotating kiln with refractory (bricks) inside that maintain heat and drying, burning and cooling happen on different hearths. Biosolids move down from the outer level to the inner level by arms with teeth raking the biosolids. The top part is the drying zone, it then moves down, combusts, and the ash cools and is then pumped out to the lagoon. The flue gases are cooled and scrubbed with water then discharged to the stack.

Fluidized bed units have sand like material at the bottom and air is forced up to fluidize the sand bed. The biosolids are injected into the sand bed and combust in the fluidized bed which holds the heat efficiently and can operate autogenously (or without external fuel).

A meeting participant asked how you get ash out from a fluidized bed. **Anthony Pigaidoulis** replied that he was not sure of the exact detailed process, and **Francis Chang** added that the bottom ash and fly ash are collected separately and the fly ash can be removed with bag houses.

Maria Vandenberg asked where is the fluidized bed technology used. **Anthony Pigaidoulis** replied that it is used in the neighbouring municipalities of Durham Region and Mississauga (Peel Region) for the incineration of municipal wastewater sludge.

Desmond Vandenberg asked about the quality of air going out the stack and whether there is a reduction in air emissions with different technology. **Anthony Pigaidoulis** replied that it depends on the type of air pollution control system that you use for treating the flue gases. At the HCTP the scrubber is a water tray impingement scrubber with a gas quencher (or cooler).

Desmond Vandenberg asked about the standards for mercury and what range the plant was in. **Anthony Pigaidoulis** replied that with respect to the in-stack parameters it is approximately 26% of the Canada Wide Standard, and less than 0.01% of the point of impingement standard. Toronto Water has one of the most stringent sewer use by-laws in North America

Francis Chang asked if there were any plans in the Biosolids Master Plan for beneficial use of the ash. He wondered what will be done with the ash. **Anthony Pigaidoulis** replied that currently the ash in the lagoon goes to landfill. He said that it could potentially be used with other products to mix brick or concrete. That decision would be made during the detailed design of projects recommended by the Draft Master Plan. **Colin Smith** added that it is difficult to get a recipient for ash because of the variability in fly ash.

Cheda Ropcalic asked what will happen with the 38 million dollars for phase two of the odour study. **Anthony Pigaidoulis** replied that phase two will only happen as required. He explained that the odour study is very specific regarding the findings. In general,

implementation of phase one is estimated to contain 99% of the odours. Phase two is a significant investment because in order to get to 100% elimination of odours, a significant amount of capital investment would be required to cover entire open outdoor tanks.

Bill Sheehan said that he agreed with the definition of beneficial use that Nancy Fleming, manager of the biosolids program, used in July 2006 and in a request for proposals. He said that he thought it was important to adopt this definition. He paraphrased the definition as meaning: any legal use of biosolids that was both economical and environmentally sound.

Bill Sheehan asked that when the refurbished incinerator is in place that if they won't need to go through expensive digestion. **Anthony Pigaidoulis** responded that the digesters would continue to be used. The digesters were built to give us the option to use biosolids for beneficial use. Digestion reduces pathogens, volume of material for incineration, and produce sewage biogas that can be used in other parts of facility such as the boilers for heating and the incinerator for fuel.

Bill Sheehan said that it sounded like a waste of money to be talking about building incinerators. He wondered why incineration isn't being phased out like at Ashbridges Bay.

Bill Sheehan asked who is carrying out the testing for the stack emissions. **Anthony Pigaidoulis** replied that AMEC Earth & Environmental did the testing in 2006. Previously Ortech and other reputable firms have been hired through tendered processes to complete the source testing.

Bill Sheehan asked what standards they were enforcing. **Anthony Pigaidoulis** replied it was Ontario Regulation 419/05, and MOE Guideline A-8 (CWS for Dioxins and Furans).

Bill Sheehan said that at the stack in Bramelea hits 90% of what province allows.

Desmond Vandenberg said that the whole summer of 2006 was bad for odours, not just November 2006. He said that he understood through email correspondence that there were problems at the plant. **Anthony Pigaidoulis** replied that one primary tank's scum collectors are planned to be fixed this summer. Scum has been collected by a sucker truck manually on an as required basis and occurs approximately once per month.

Desmond Vandenberg asked if it was a bad time for odours when trucks are at the plant. **Anthony Pigaidoulis** replied that in general this may be a time when odours could be emitted from the head house, but the time is kept to a minimum when the loading doors are opened. The waste materials are collected and put in bins and hauled out approximately once every two weeks. The staff have to open a large door, but they only open the door for the shortest time possible and close immediately after. **Desmond Vandenberg** asked if there was any particular day that was bad for odours. **Anthony Pigaidoulis** said that there was not any particular day.

Desmond Vandenberg asked if there was anything that could be done to make for a better or more predictable summer for residents. **Anthony Pigaidoulis** replied that unfortunately weather is the main factor in impacting odours. Regarding the summer,

Anthony said he could speak to management and try to have a more laid out time when odours may be an issue; for example, when removing grits and screening but, work is usually done during working hours, between 7 a.m. and 3 p.m., and does not happen on weekends. So, he couldn't see too many changes to plant operations given that weather was the main factor.

Francis Chang said that he has heard about odour concern many times. He proposed a motion that plant management make extra effort to reduce odour emissions. **Anthony Pigaidoulis** replied that he could not guarantee action will be taken. He said that plant staff already do all they can to minimize odours by ensuring that all doors are kept closed and that odour control scrubbers are operating.

Anthony Pigaidoulis said that he has had residents complain to him about odours from other facilities in the Beechgrove and Coronation area. He explained that the plant is not the only one emitting odours. He asked who else could be emitting odours and what others had smelt. **Allan Elias** said that he has heard that Beechgroove Foods and chemical companies in the area have given off odours. **Maria Vandenberg** said she's noticed a glue smell from Holtec and a liquorice/spicy sausage smell from another company behind them.

Anthony Pigaidoulis said that copies of the odour complaint forms go to the MOE as well, and they look at identifying what the source of the any odours could be. When a complaint comes to the plant workers do a walkabout to see if anything is abnormal and check to make sure all doors are closed and odour control equipment is operating.

Bill Sheehan explained that a previous company was offering a deal for gasification technology to the City 2 ½ years ago, but this is not free anymore and is now available at a price.

Maria Vandenberg noticed an odour one day and noticed yellowy gas coming out of stack. She has a photograph of it. This was unusual as it is usually white. She asked what the reason was for the colour change. **Anthony Pigaidoulis** said that atmospheric conditions including clouds behind the plume may affect how it looks.

Bill Sheehan asked who the contact at the MOE is if someone would like to report odours? **Anthony Pigaidoulis** said that Karen Wiltshire, Senior Environmental Officer, at the MOE could be contacted.

Francis Chang asked what the role was of the new safety officer. Ying Zheng explained that her role was to ensure environmental health and safety compliance. She has been involved in establishing the Quality Management System, and provides a mechanism to ensure practice meets all regulatory requirements.

Cheda Ropcalic asked if someone at the plant collected samples to test the odours in the system. **Ying Zheng** replied no, that a system/gap analysis would be conducted.

Francis Chang asked who deals with odour complaints at the plant. **Anthony Pigaidoulis** replied that people can call the plant and speak to a live person or leave a message which will be returned. Odour complaints are dealt with by many people at the plant, including engineer, plant technician, senior engineer, team coordinator, etc.

Bill Sheehan asked if people should not be calling the spills line then. **Anthony Pigaidoulis** replied that either the plant or the spills line could be called. And he encouraged them to call both lines. The phone number for the plant is (416) 392-2357.

Bill Sheehan asked why an Environmental Assessment (EA) wasn't being done for the refurbishing of the incinerator when what comes out of stack affects beyond this area. **Anthony Pigaidoulis** replied that he could not speak to the original EA process, but that it was likely included in the EA when the facility was build approximately 30 years ago.

Bill Sheehan asked if someone at this plant could ask if an EA is required to verify that it is not needed. **Clarito Gonzales** replied that he would confirm the EA process for the refurbishing of the incinerator at the HCTP and suggested that if Bill Sheehan wanted specific confirmation he would encourage him to follow up himself as well. **Francis Chang** said that the committee would like an update on this matter at the next meeting.

4. OTHER BUSINESS

Francis Chang showed some slides from his travels to interesting treatment plants in Poland and Holland. The plant in Poland, near Krakow was fairly new and was similar to the Highland Creek plant, but updated with newer big anaerobic digesters. The plant in Holland has good post-treatment so the emission is very low. It has tours and well-known paintings included at the plant to show that the plant is a good place to be.

5. NEXT MEETING DATE, AGENDA ITEMS, ADJOURN

After some discussion, **Francis Chang** suggested that the next meeting be held on Monday September 10, 2007. The group confirmed that this was a suitable date. At the next meeting it will be decided whether another meeting is required in 2007.

Nancy Martins advised that she had received some questions on the enforcement of the Sewer Use By-Law and that she had requested a staff present on the topic a the next HCTPNLC meeting.

Agenda items for the next meeting included:

- Speaker on the Sewer Use By-Law.
- Update on whether an EA is needed for the refurbishment of plant equipment.

Meeting adjourned at 8:45 p.m.

Attachment A

**Highland Creek Treatment Plant
Presentation by Anthony Pigaidoulis**