

Brightwater Environmental Education and Community Center	Thursday, September 20, 2012	4:00 – 5:30 p.m.
<i>Board Member</i>	<i>Agency</i>	<i>Present</i>
Barry Bettinger	Community Representative	
John Buckley, P.E., J.D.	Independent Expert	X
Pam Elardo, P.E.	WTD Division Director, King County	X
David Evans	Snohomish County, Public Works	X
Scott Hageman	Councilmember, City of Woodinville	
Gary Hajek	MWPAAC Representative	
Dan Kalstad	Community Representative	X
Agata McIntyre, P.E.	Puget Sound Clean Air Agency	X
Bob Van Horne	Fire Chief, Bothell Fire and E.M.S.	

Non-Board Member Attendees:

Stan Hummel, WTD; Robert Waddle, WTD; Yasmin Mudah, WTD

A. Call to Order

- a. Meeting was called to order by Board Chairman, John Buckley at 4:00 p.m.

B. Meeting Agenda - Key Points of Discussion

- a. **Agenda item #2 – Board Business:**

Meeting Notes – Meeting notes from the May 17th meeting were approved.

Board Membership - Agata McIntyre has accepted a new position and will be leaving PSCAA at the end of the year. Steve Van Slyke, manager of compliance, will be taking her place as the Agency representative for the Board.

- b. **Agenda item #3 – Odor Control System Operational Status Report:**

Robert Waddle provided an update of the odor control system operational status. Odor control systems are operating within standards.

Q. How are the biological treatment units working? How long is the startup period?

A. The biological units are fully seeded and showing good removal of hydrogen sulfide. Once the treatment plant is running at full flow, there will be a better indication of their treatment performance.

Q. What is the overall status of the Treatment Plant?

A. The treatment plant has been on-line since September 6, 2011; over one year now. During this interim commissioning period the treatment plant discharged effluent through the reclaimed water line to the existing sewer system, which conveys flow to South Plant. This provided an excellent opportunity to test the treatment plant systems and processes prior to bringing the full system online. A Plant shutdown is scheduled for one week beginning October 22nd for work to convert the system to full

flow. Once this work is complete the Plant will be restarted and flow will be discharged to Puget Sound. The odor control systems will continue to operate during the shutdown period. The flow will increase from the current 10 to 12 mgd to 20 to 23 mgd average daily flow. With the higher loading, we will begin testing the Chemically Enhanced Primary Clarification system. Plant influent flows will be increased gradually to rebuild the biological process. We do not expect an increase in odor production.

Q. What other King County facilities utilize chemicals for odor control?

A. Chemical treatment is used at off-site facilities such as pumping stations to control odor formation in pipelines. The stations that feed Brightwater are: North Creek Pump Station - caustic soda; York Pump Station - hypochlorite;; Sammamish, Hollywood, Black Diamond and North Mercer Pump Stations - Bioxide.

c. Agenda item #4 – Report of Complaints and Investigations, Odor Complaint Log:

Robert Waddle reported that two odor complaints were lodged since the last Board meeting.

A complaint was filed with PSCAA on June 29th. The complaint was received by the County on July 3rd. Brightwater operations staff provided PSCAA with wind direction and odor monitoring data at the time of the complaint. Wind data indicated that the complainant's residence was in a downwind direction from the Plant at the time of complaint. Operations personnel confirmed that the exhaust emissions were below 20ppb at the time of the complaint; consequently, odor appeared to be from a source other than Brightwater.

A complaint was received by the Brightwater control room on July 16th. The resident described the odor as manure or compost. An investigation was performed by Brightwater operations personnel which noted that the complainant's address was not downwind of the treatment plant at the time of the complaint. H₂S stack emissions were well below the 20ppb criteria; therefore, odor appeared to be from a source other than Brightwater. Two voice messages were left with the complainant describing the findings.

Q. What is the investigation procedure when complaints are received from an outside agency and not timely?

A. Section 4.5 of the Odor Monitoring and Response Plan identifies the procedures when a complaint from an external agency is received.

4.5 - Procedures when Notified of an Odor Complaint Referred to King County from an External Agency

1. Collect and document information on date, time, odor characteristics, and location. Determine if the complainant wishes to be contacted by King County personnel in response to the complaint.
2. King County will immediately review control system data to identify if the odor control system was operating within standards at the time the complaint occurred. Document results of investigation.
3. Initiate corrective action within 24 hours, using good industrial practices, to correct any problems identified by its investigation.
4. Notify referring agency of investigation results and any corrective actions taken.
5. Document complaint and results of investigation in External Agency Odor Complaint Log. Maintain records at the Brightwater Plant of all complaints received.

6. Send completed forms and reports to the KC odor control database and make available to the Air Quality Advisory Board for review.

d. **Agenda item #5 – Report of Property Boundary Odor Monitoring, Odor Monitoring Log:**

Robert Waddle provided an update and distributed copies of the Odor Monitoring Log. There were no odors observed or hydrogen sulfide readings believed to be attributable to the Treatment Plant during property boundary monitoring. There were instances when hydrogen sulfide was detected above the 3 ppb detection limit for the Jerome analyzer. Automobile exhaust emissions are believed to be responsible.

Q. How often is property boundary monitoring conducted?

A. Property boundary monitoring has been conducted once a week during the first year of operation.

e. **Agenda item #6 – Update on Sycamore Instrumentation:**

Stan Hummel updated the Board on the status of the Sycamore monitoring units. Two documents were presented to the Board – a chronology of the events and findings conducted for analysis of the Sycamore problems and a work plan for pilot testing potential replacements.

King County, design engineers CH2M Hill, and Sycamore have been unable to determine why the equipment is not performing, and have concluded that testing of other hydrogen sulfide monitoring equipment is warranted. A work plan was developed to conduct a three-month pilot test of two units to run in parallel with the Sycamore. The two units to be tested are the Jerome 651 and the Honeywell Chemcassette.

It is anticipated that in April, the County will have enough data and experience with the units to know what the issue is or have developed a recommendation for a replacement unit.

Q. What is Sycamore's role in participating in the pilot test?

A. We have had a number of discussions with Sycamore who have volunteered ideas on why spiking has occurred. Sycamore has been notified of our intent to perform a pilot test with other instrumentation. If the existing equipment is replaced, we will look to Sycamore to refund the cost of the instruments.

Discussion of Detection Limit and Property Boundary Monitoring Verbiage:

There was discussion regarding property boundary monitoring data that could result in a misinterpretation that King County is not meeting odor control standards. The concern expressed is that background property boundary hydrogen sulfide monitoring data sometimes exceeds the 0.8ppb criteria established in the Development Agreement. It was suggested that King County clarify that the 0.8ppb H₂S at the property boundary cannot be directly measured since the detection limit for the Jerome Analyzer is 3.0 ppb. The 0.8ppb criteria was chosen because it is at the lower part of the range for detection by humans with sensitive noses. Using a worst case air dispersion ratio of 1:25 (occurring during a combination of stagnant air and inversions), the calculated maximum stack emission is 20ppb (25 x 0.8ppb = 20ppb). The stack air measurement is considered the point of compliance since background levels may exceed 0.8ppb. Also of concern with the 0.8ppb, is that even the most sensitive instrumentation cannot

measure at these very low levels. The H₂S detection limit of the Jerome handheld device is 3ppb +/- 25%. Values above 3ppb are considered to have an uncertainty of 1ppb.

It was recommended that the Odor Monitoring and Response Plan be clarified to avoid potential misinterpretation. Draft language will be presented to the Board at the next meeting for discussion.

C. Board Actions and Requests

- a. **Meeting Notes** – Meeting notes from the March 17th meeting were approved.
- b. **Sycamore Update** - The Board requested further updates.
- c. **Brightwater Awards** – The Board requested a list of awards earned by Brightwater.
- d. **Odor Monitoring and Response Plan Detection Limit and Property Boundary Monitoring** – The Board has requested that this item be included on the next agenda.
- e. **Tour of IPS** – The Board requested a tour of IPS be scheduled for the next meeting.

D. Standing Items

- a. **Next Meeting** – December 6th, 4:00-6:00pm, Brightwater Conveyance CM Office.
- b. **Proposed Agenda:**
 - a. Odor Control System Operational Status
 - b. Odor Complaint and Investigation Update
 - c. Property Boundary Odor Monitoring Update
 - d. Update on Sycamore Workplan
 - e. Odor Monitoring and Response Plan Detection Limit and Property Boundary Monitoring
 - f. Commemorate the Board for One Year of Service
 - g. Tour of IPS