

**From:** Balaraju, Panjini (ECY)  
**Sent:** Thursday, August 22, 2019 2:31 PM  
**To:** Mike F. Coenen <[mcoenen@geodesigninc.com](mailto:mcoenen@geodesigninc.com)>  
**Cc:** Bassel Ayoub ([basselayoub@comcast.net](mailto:basselayoub@comcast.net)) <[basselayoub@comcast.net](mailto:basselayoub@comcast.net)>; Balaraju, Panjini (ECY) <[PBAL461@ECY.WA.GOV](mailto:PBAL461@ECY.WA.GOV)>  
**Subject:** RE: Revised text for periodic review report

Good afternoon Mike,

As I mentioned in my telephone message of last week, I reviewed the Construction Completion Report (CCR). During my review, I noticed that there were few changes made to the approved EDR during the construction [change in diameter of the sub-slab pipe (from 3" to 2"), length of trench dams, combining two vent risers into a single riser]. I presume that these changes will not impact the overall performance of the vapor mitigation system. However, these changes should have been informed to Ecology prior to their implementation.

Thanks for your response to my e-mail below. Ecology disagrees with your responses regarding the changes to the monitoring program and barrier/conduit insulation.

- **Barrier Insulation:** Per the approved EDR, conduit seals/insulation must have been installed for all conduits. The contractor should have been coordinated with the electrical company/utility company for the installation of these seals. Just monitoring the lower compartment of the electrical panel is not enough (every six months as proposed) and does not address the potential vapor problem/potentially vapor getting into the building. The seals/insulation must be installed coordinating with the electrical company/utility company by October 31, 2019.
- **Vapor Monitoring:** Per the approved EDR, four rounds of (post construction) quarterly vapor monitoring should have been completed irrespective of July 2018 non-detect result. Just a single monitoring data point is insufficient to determine the seasonal vapor concentrations below the sub-slab. Ecology highly recommend that the vapor monitoring be started by September 30, 2019 and complete four rounds of quarterly monitoring. Based on the results of four rounds of monitoring, Ecology will consider changing the sampling frequency to semi-annual (low and high barometric pressures).

I will call Bassel and discuss with him regarding the above work. If the above work is not done on-time, Ecology may consider that the site is not protective of human health and may decide to withdraw the no further action letter.

If you have any questions regarding this e-mail, please call me at (360) 407-6335.

Thanks.  
Panjini Balaraju

**From:** Mike F. Coenen  
**Sent:** Thursday, August 15, 2019 1:40 PM  
**To:** Balaraju, Panjini (ECY) ; Bassel Ayoub ([basselayoub@comcast.net](mailto:basselayoub@comcast.net))  
**Subject:** RE: Revised text for periodic review report

Hi Panjini,

Regarding the open items listed in your email.

- **A small portion of vapor barrier insulation:** Still a small portion of the vapor barrier insulation below the electrical panel has not been completed. On January 2, 2019 I sent an e-mail to Mike Coenen and cc to you (see my e-mail below), but I came to know that still it is not being completed. It has to be completed as soon as possible. **This is referring to the electrical conduits in the exterior electrical panel on the north side of the building. We addressed this in the Construction Completion Report (CCR). The compartment of the panel is ventilated and in our opinion, methane will not likely accumulate. Furthermore, it is my understanding that this compartment is only accessible by the electrical company. As described in the CCR, the lower compartment would be monitored and the conduit sealed when accessed by the electrical company.**
- **Vapor Monitoring:** After talking to Mike Coenen I came to know that the vapor monitoring was conducted on July 2018 (subsurface monitoring). As per the final Engineering Design Report (EDR), the vapor monitoring was supposed to be conducted on the quarterly basis during the first year (after the completion of the construction/building), than Ecology will make a determination regarding the future monitoring frequency. However, vapor monitoring was conducted only one time (this is in violation of the final EDR). Long-Term vapor monitoring has been conducted on an on-going basis on a reasonable frequency to assure that there is no accumulation of vapors in the subsurface. **The CCR proposed a different monitoring program than the EDR. Methane was not detected during the July 2018 monitoring event. Therefore, we proposed semi-annual monitoring for 2 years. The need for future monitoring would be evaluated after the 2-year monitoring period. Further details are provided in the CCR.**

Thanks,

**Mike Coenen, P.E.**  
Associate Engineer

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**From:** Balaraju, Panjini (ECY) <[PBAL461@ECY.WA.GOV](mailto:PBAL461@ECY.WA.GOV)>  
**Sent:** Tuesday, August 13, 2019 10:00 AM  
**To:** Bassel Ayoub ([basselayoub@comcast.net](mailto:basselayoub@comcast.net)) <[basselayoub@comcast.net](mailto:basselayoub@comcast.net)>  
**Cc:** Mike F. Coenen <[mcoenen@geodesigninc.com](mailto:mcoenen@geodesigninc.com)>  
**Subject:** FW: Revised text for periodic review report

Good morning Bassel,

We mailed a copy of the second periodic review report to you at the following address:

Bassel Ayoub  
3660 SE Concord Road  
Portland, OR 97267

But the report came back undelivered. Please send me the correct address so that we can mail it to the correct address for your files.

Also I would like to talk to you regarding the following two things that are not being completed yet at the site.

- **A small portion of vapor barrier insulation:** Still a small portion of the vapor barrier insulation below the electrical panel has not been completed. On January 2, 2019 I sent an e-mail to Mike Coenen and cc to you (see my e-mail below), but I came to know that still it is not being completed. It has to be completed as soon as possible.
- **Vapor Monitoring:** After talking to Mike Coenen I came to know that the vapor monitoring was conducted on July 2018 (subsurface monitoring). As per the final Engineering Design Report (EDR), the vapor monitoring was supposed to be conducted on the quarterly basis during the first year (after the completion of the construction/building), than Ecology will make a

determination regarding the future monitoring frequency. However, vapor monitoring was conducted only one time (this is in violation of the final EDR). Long-Term vapor monitoring has been conducted on an on-going basis on a reasonable frequency to assure that there is no accumulation of vapors in the subsurface.

I would like to talk to you regarding the above issues. Please call me as soon as possible at (360) 407-6335. If these things are not addressed as soon as possible (may be within a month, installation of insulation and starting of vapor monitoring), Ecology may decide to withdraw/rescind the no further action letter for the site and relist the property as contaminated on Ecology's Confirmed and Suspected Contaminated Sites List.

We received the Construction Completion Report. But I did not get a chance to review the report yet.

Thanks.

Panjini Balaraju

**From:** Mike F. Coenen <[mcoenen@geodesigninc.com](mailto:mcoenen@geodesigninc.com)>

**Sent:** Monday, January 14, 2019 11:10 AM

**To:** Balaraju, Panjini (ECY) <[PBAL461@ECY.WA.GOV](mailto:PBAL461@ECY.WA.GOV)>; Bassel Ayoub ([basselayoub@comcast.net](mailto:basselayoub@comcast.net)) <[basselayoub@comcast.net](mailto:basselayoub@comcast.net)>

**Subject:** RE: Revised text for periodic review report

Hi Panjini,

Three of the four wells were abandoned. A third well MW-3R could not be located when we abandoned the other three. According to the site plan, this well is located along the southern property line and east of the Golden Corral building.

The photo you included is MW-4. This well was abandoned in place by ESN. Bentonite was placed in the PVC well casing to seal it. The iron pipe visible in the photo is the outer protective casing for the well. Your photo and a photo we took when the well was abandoned are included with this email. Also included is the field report generated after the wells were abandoned. Hope this clarifies the wells. Please let me know if you have any questions.

Thanks,

**Mike Coenen, P.E.**  
Associate Engineer

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**From:** Balaraju, Panjini (ECY)

**Sent:** Monday, January 14, 2019 10:46 AM

**To:** Mike F. Coenen ; Bassel Ayoub ([basselayoub@comcast.net](mailto:basselayoub@comcast.net))

**Subject:** RE: Revised text for periodic review report

Good morning Mike,

Thanks for the information. I will revise my draft report to include this information. The iron pipe (extension) we saw on the site looks like a monitoring well. I think there were four monitoring wells on the site. We need to look into this iron pipe and find out whether or not it is a monitoring well. If it is, it should be decommissioned as per WAC 173-160 requirements.

Thanks.

Panjini Balaraju

**From:** Mike F. Coenen [<mailto:mcoenen@geodesigninc.com>]

**Sent:** Monday, January 14, 2019 10:26 AM

**To:** Balaraju, Panjini (ECY) <[PBAL461@ECY.WA.GOV](mailto:PBAL461@ECY.WA.GOV)>; Bassel Ayoub ([basselayoub@comcast.net](mailto:basselayoub@comcast.net)) <[basselayoub@comcast.net](mailto:basselayoub@comcast.net)>

**Subject:** RE: Revised text for periodic review report

Hi Panjini,

I went through our field notes. MW-2 was decommissioned and removed. MW-1 and MW-4 were decommissioned in place. We were unable to locate MW-3R. The wells were decommissioned by a license driller in accordance with applicable regulations. The Construction Completion Report will discuss the field activities and provide documentation. We will also work with Bassel and Golden Corral to get the conduit sealed as soon as possible.

Thanks,

**Mike Coenen, P.E.**  
Associate Engineer

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**From:** Balaraju, Panjini (ECY) <[PBAL461@ECY.WA.GOV](mailto:PBAL461@ECY.WA.GOV)>  
**Sent:** Monday, January 14, 2019 8:41 AM  
**To:** Bassel Ayoub ([basselayoub@comcast.net](mailto:basselayoub@comcast.net)) <[basselayoub@comcast.net](mailto:basselayoub@comcast.net)>  
**Cc:** Mike F. Coenen <[mcoenen@geodesigninc.com](mailto:mcoenen@geodesigninc.com)>  
**Subject:** FW: Revised text for periodic review report

Good morning Mr. Ayoub,

As I have indicated in my e-mail below, the vapor barrier insulation to a small portion electrical conduit needs to be completed **IMMEDIATLEY**. Without this insulation, the electrical conduit may serve as a

potential pathway to the vapor to get into the building. In addition, the exiting groundwater monitoring well MW-4 needs to be abandoned as per WAC 173-160 requirements. I will call you early this week to discuss about these things.

Panjini Balaraju.

**From:** Balaraju, Panjini (ECY)  
**Sent:** Wednesday, January 02, 2019 7:28 AM  
**To:** Mike F. Coenen <[mcoenen@geodesigninc.com](mailto:mcoenen@geodesigninc.com)>  
**Cc:** Bassel Ayoub ([basselayoub@comcast.net](mailto:basselayoub@comcast.net)) <[basselayoub@comcast.net](mailto:basselayoub@comcast.net)>  
**Subject:** FW: Revised text for periodic review report

Good morning Mike,

Thanks for meeting with me at the site on December 28, 2018. Based on my site visit, overall site conditions looks okay. However, you mentioned that a small portion of vapor barrier insulation for the electrical conduit (below the electrical panel) still needs to be completed near the electrical panel (back of the building, see the attached photo). Also you mentioned that the contractor was supposed to complete this work and was not being done. This work needs to be completed as soon as possible to eliminate any potential possibility of vapor getting into the building through the electrical conduit space. In addition, as we saw during our site visit, the groundwater monitoring well MW-4 is still existing at the site (see the attached photo). Since we are not conducting any groundwater monitoring at the site, this groundwater monitoring well should be abandoned as per the requirements of WAC 173-160 so that this well will not serve as a conduit to any contamination migration. I will call and talk to Mr. Ayoub regarding these things.

Thanks for your comments/suggested edits on the updated section in the second periodic review report. I will revise and include your suggested edits in the draft report. Most likely the draft second periodic review report will go out for the 30-day public comment either end of this month or early next month. Our public outreach person, Nancy Davis will send you and Bassel an heads-up e-mail before starting of the public comment period.

If you have any questions, please call me at (360) 407-6335.

Thanks.

Panjini Balaraju

**From:** Mike F. Coenen [<mailto:mcoenen@geodesigninc.com>]  
**Sent:** Monday, December 31, 2018 2:49 PM  
**To:** Balaraju, Panjini (ECY) <[PBAL461@ECY.WA.GOV](mailto:PBAL461@ECY.WA.GOV)>

**Cc:** ORCHARD-1-01 <[ORCHARD-1-01@geodesigninc.onmicrosoft.com](mailto:ORCHARD-1-01@geodesigninc.onmicrosoft.com)>

**Subject:** Revised text for periodic review report

Hi Panjini,

I reviewed the updated section for the periodic review report and made some suggested edits. I included the methane investigation and sending over the table with the methane investigation results, and a site plan showing the sampling locations. Let me know if you have any questions.

Happy New Year.

**Mike Coenen, P.E.**  
Associate Engineer

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