

Vapor Intrusion Assessment

Alexander Avenue Petroleum Tank Facilities Site

Ecology Facility Site No. 1377/Cleanup Site No. 743

To: Joyce Mercuri, Washington State Department of Ecology

From: Sarah Weeks, Port of Tacoma and Jeremy Porter, Aspect Consulting

Cc: Clint Babcock, Glenn Springs Holdings, Inc.

Date: December 16, 2016

The purpose of this memo is to serve as the preliminary assessment to identify whether the potential for vapor intrusion exists at the Alexander Avenue Petroleum Tank Facilities property (Site) in accordance with the most recent Department of Ecology (Ecology) screening guidance (Ecology, 2016a,b). Site soil and groundwater is impacted by petroleum released from a historical tank farm. Our assessment indicates that under current site conditions the potential for vapor intrusion does not exist. The exposure pathway is incomplete and additional assessment is not necessary.

There is one building within the area of groundwater contamination at the Site, Port Building 845 (building). Building 845 is not constructed for occupancy. The building consists of a steel shed above asphalt pavement with two large garage doors on the northern wall and one on the southern wall. It is not insulated or air-tight. The building does not have a HVAC system to create pressure differential between the building interior and the subsurface, and does not include any enclosed spaces (e.g., offices, bathrooms, or other rooms) where vapors could accumulate (see Figures). The structure is not currently in use and long-term plans are for storage only (Attachment A). In its current condition and use the vapor intrusion exposure pathway is incomplete, the building is therefore precluded from additional assessment as outlined in Ecology's guidance document (Ecology 2016a, Section 1.4.1, pg. 1-13):

"If the chemicals present at the site are toxic and volatile, but the contamination is far from any occupied existing or planned building, vapor intrusion is not currently posing a threat to indoor receptors. There is no further need to assess the pathway, then, for the purpose of determining if mitigation or some other form of interim action is needed."

If building use changes, the Port will inform Ecology and perform further assessment as necessary.

Let us know if you have any questions or would like to discuss the contents of this memo.

Sincerely,

Sarah Weeks
Environmental Project Manager, Port of Tacoma
sweeks@portoftacoma.com
253.383.9450

REFERENCES

Ecology (2016ba) *Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action*. Toxics Cleanup Program. Publication No. 09-09-047. Review draft revised February 2016.

Ecology (2016b) *Updated Processes for Initially Assessing the Potential for Petroleum Vapor Intrusion No. 14*. Toxics Cleanup Program. Publication No. 16-090046. Supplement to Chapter 2, "Preliminary VI Assessments," in Ecology 2009 draft *Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action*. March 31, 2016.

FIGURES

Figure 1. Building interior, looking east. Puddles on the ground appear to have formed from leaks in the roof.



Figure 2. Missing panels above northwest garage door, looking northwest.



Figure 3. Northern exterior of the building, looking southeast. Missing panels above northwest garage door.



Photo taken by Sarah Weeks, 11/02/2016

ATTACHMENT A – Correspondence with Puget Sound Energy regarding Building 845 use.

From: Hogan, Jim
To: [Warfield, Tony](#)
Cc: [Weeks, Sarah](#); [Kauhane, Jennifer](#)
Subject: RE: Ecology concerns over use of building 845
Date: Tuesday, November 15, 2016 3:10:32 PM

Tony,

You are correct. There is no intention to use this building as a work space. During construction, the building is being used to store materials out of the weather.

The building has no specific function when the plant is operational. There is ample storage and shop space in our control/administration building and the plant is not expected to store any large volume of spare parts or have other storage requirements that would make the 845 building a necessity. The bottom line is that the building is in reasonable shape and it does not make economic sense to demolish it, even though there is no intended use. When the plant goes into service, I'm sure that we can do something more formal with the city, signage, etc. to ensure that it never becomes a work space.

Jim Hogan
Consulting Project Manager
Tacoma LNG

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From: Warfield, Tony [mailto:twarfield@portoftacoma.com]
Sent: Monday, November 14, 2016 8:43 AM
To: Hogan, Jim
Cc: Weeks, Sarah
Subject: Ecology concerns over use of building 845

Morning Jim,

How 'bout them Cougs?

Sarah is working with Ecology on the remediation effort going on at your plant site. One concern Ecology has raised several times involves vapor intrusion in building 845 and risks to employees that would be permanently stationed within it. We have told them that PSE's intended use of the building is for storage and no offices or maintenance staff would be located within the building. They seem perfectly okay with using it for storage but want to hear more directly from PSE regarding your intended use.

Could you please provide a brief description of how the building would be used, and how often you would anticipate employees entering the structure? I know you don't have perfect certainty on that point yet, but just confirming there will not be office, operations or maintenance staff spending entire shifts within the structure would be very helpful.

Thanks much,

Tony Warfield
Senior Manager | Port of Tacoma | Environmental and Planning Program
253-428-8632