



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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December 12, 2017

Mr. Jamie Dykman
Protective Coatings, Inc.
1208 4th Avenue North
Kent, WA 98032

Re: Further Action at the following Site:

- **Site Name:** Protective Coatings, Inc.
- **Site Address:** 1215 2nd Avenue N, Kent, WA 98032
- **Facility/Site No.:** 85155236
- **Cleanup Site ID No.:** 12337
- **VCP Project No.:** NW2843

Dear Mr. Dykman:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your independent cleanup of the Protective Coatings, Inc. (Site). This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

Issue Presented and Opinion

Is further remedial action necessary to clean up contamination at the Site?

YES. Ecology has determined that further remedial action is necessary to clean up contamination at the Site.

This opinion is based on an analysis of whether the remedial action meets the substantive requirements of MTCA, Chapter 70.105D RCW, and its implementing regulations, Chapter 173-340 WAC (collectively "substantive requirements of MTCA"). The analysis is provided below.

Description of the Site

This opinion applies only to the Site described below. The Site is defined by the nature and extent of contamination associated with the following releases:

- Trichloroethylene (TCE) and cadmium in soil.



- 1,1-Dichloroethene (1,1-DCE), 1,2-dichloroethene (1,2-DCE), and arsenic in ground water.

Please note a parcel of real property can be affected by multiple sites. At this time, we have no information that the parcel associated with this Site is affected by other sites.

Basis for the Opinion

This opinion is based on the information contained in the following documents:

1. GHD, August 22, 2017, Cleanup Action Work Plan
2. GHD, March 9, 2017, Status of VCP Project

The documents above are kept in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. You can make an appointment by calling the NWRO resource contact at (425) 649-7235 or sending an email to nwro_public_request@ecy.wa.gov.

This opinion is void if any of the information contained in those documents is materially false or misleading.

Analysis of the Cleanup

Ecology has concluded that **further remedial action** is necessary to clean up contamination at the Site. That conclusion is based on the following analysis:

1. Characterization of the Site.

Based on all the data collected from the Site to date, Ecology has determined your assessments and characterization of the Site are sufficient to select cleanup actions.

- Based on the Status of VCP project report dated March 9, 2017, contamination was detected at concentrations exceeding the MTCA Method cleanup levels in soil and ground water. The sources of the contamination were confirmed to be related to operations of various historical and current industrial activities located on the Property.
- Contamination on the Site has been characterized, and the chemicals of concern (COCs) defined at this Site include TCE, 1,1-DCE, 1,2-DCE, cadmium and arsenic.

2. Establishment of cleanup standards.

Ecology concurs with the cleanup levels and points of compliance you established in the cleanup action work plan (CAP) for the Site to meet the substantive requirements of MTCA.

a. Cleanup levels.

Soil

Soil cleanup levels for unrestricted land use are suitable for this Site. For unrestricted land use, including the human direct contact and soil-to-ground water pathways, Method C cleanup levels defined in MTCA can be utilized.

There is no terrestrial habitat on or within 500 feet of any part of the Site, which is surrounded by industrial and commercial land uses. Therefore, a terrestrial ecological evaluation is not required.

Ground Water

It is appropriate to utilize MTCA Method B ground water cleanup levels defined in MTCA or USEPA's MCLs for unrestricted land use at this Site.

b. Points of compliance.

Soil

The point of compliance for contaminated soil is based on the protection of ground water and it is applied Site-wide throughout the soil profile, which may extend below the water table.

Ground Water

The point of compliance for ground water is throughout the Site from the uppermost level of the perched zone to the lowest saturated aquifer which could potentially be affected by the Site.

3. Selection of cleanup actions.

Ecology has determined that the CAP you are currently proposing at the Site must meet the substantive requirements of MTCA for a no further action (NFA) determination.

The CAP proposes that:

- 1) Contaminated soil with concentrations exceeding MTCA Method C cleanup levels will be over-excavated and disposed off-Site at an appropriate facility.
- 2) In-situ chemical treatment will be conducted at the bottoms of the soil excavations before clean materials are back-filled. 3-D Microemulsion (3DM) will be applied at the soil-ground water interface at depths ranging from 6.5 and 10 feet below ground surface.
- 3) The monitoring well located within the proposed excavation (MW-3) will be decommissioned prior to the impacted soil removal. MW-3 will be replaced with a new monitoring well after completion of the soil removal.
- 4) Post-remedial ground water monitoring will be conducted on a semi-annual basis until contaminant concentrations in the ground water are below the Method B cleanup levels, or the MCLs designated in Ecology's letter dated July 6, 2017 (Page 3). At that time, the ground water monitoring interval may be altered to a quarterly basis to confirm that the cleanup levels have been stabilized.
- 5) A No Further Action request can be submitted to Ecology for if no exceedances are found in the ground water samples for a minimum of four consecutive quarterly monitoring events.

In addition, for Ecology to consider providing an NFA determination, the following requirements must be also achieved:

- 1) Laboratory results of confirmation soil samples collected at the excavations limits, sidewalls and bottoms, must show Site contaminant concentrations below MTCA Method B cleanup levels.
- 2) Impacted ground water encountered and entering the excavation must be treated and disposed of appropriately. The ground water flow direction on the Property should be determined such that any contaminant plume emanating from the source area can be fully characterized and monitored for its fate and migration.
- 3) To define migration of the plume and assess effectiveness of the remediation, installation of two additional monitoring wells might be needed laterally and down-gradient of the plume (Figure 2).
- 4) A minimum of four consecutive quarters of representative ground water monitoring data below MTCA Method B or the MCLs cleanup levels are required.

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This opinion does not represent a determination by Ecology that a proposed remedial action will be sufficient to characterize and address the specified contamination at the Site or that no further remedial action will be required at the Site upon completion of the proposed remedial action. To obtain either of these opinions, you must submit appropriate documentation to Ecology and request such an opinion under the VCP. **This letter also does not provide an opinion regarding the sufficiency of any other remedial action proposed for or conducted at the Site.**

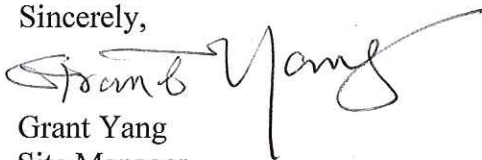
Please note that this opinion is based solely on the information contained in the documents listed above. Therefore, if any of the information contained in those documents is materially false or misleading, then this opinion will automatically be rendered null and void.

The state, Ecology, and its officers and employees make no guarantees or assurances by providing this opinion, and no cause of action against the state, Ecology, its officers or employees may arise from any act or omission in providing this opinion.

Again, Ecology appreciates your initiative in conducting independent remedial action and requesting technical consultation under the VCP. As the cleanup of the Site progresses, you may request additional consultative services under the VCP, including assistance in identifying applicable regulatory requirements and opinions regarding whether remedial actions proposed for or conducted at the Site meet those requirements.

If you have any questions about this opinion, please contact me by phone at (425) 649-7126 or by e-mail at grant.yang@ecy.wa.gov.

Sincerely,



Grant Yang
Site Manager
Toxics Cleanup Program, NWRO

cc: Christina McClelland, GHD, Inc.
Sonia Fernandez, VCP Coordinator, Ecology

Enclosure (1): A. Figure 1 Site Plan Showing Locations of the Proposed Soil Excavations
Figure 2 Site Plan Showing Locations of the Proposed Monitoring Wells

Enclosure A. Figure 1 Site Plan Showing Locations of the Proposed Soil Excavations

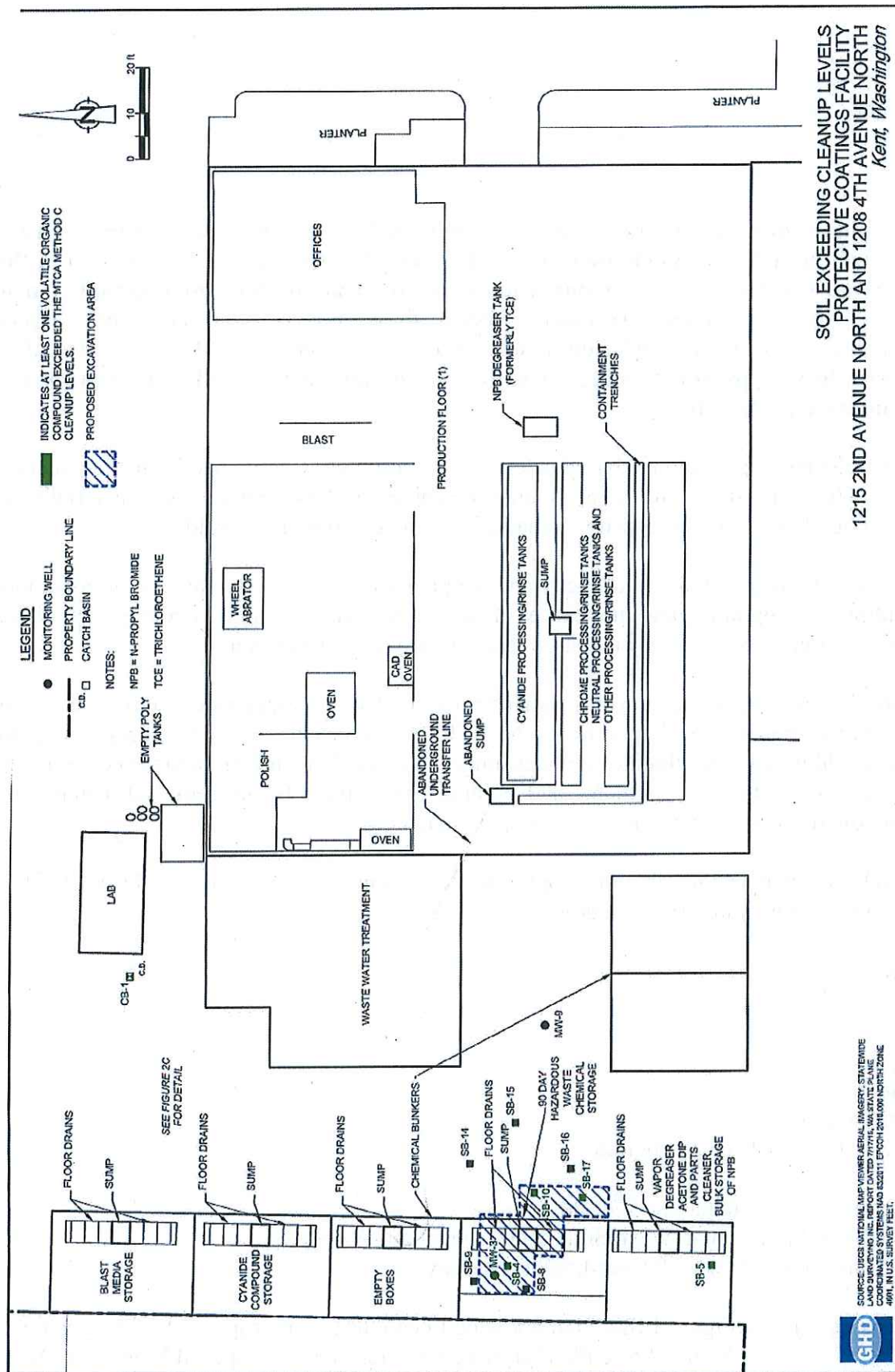


Figure 2 Site Plan Showing Locations of the Proposed Monitoring Wells

