



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Northwest Regional Office • 3190 160th Avenue SE • Bellevue, Washington 98008-5452 • (425) 649-7000

March 27, 2006

Mr. James Okel
Precision Engineering, Inc
8440 North Kerby Avenue
Portland, OR 97217

**Re: Opinion under WAC 173-340-515(5) on Remedial Action(s) for the following
Hazardous Waste Site:**

- Name: Precision Engineering
- Address: 1231 South Director Street, Seattle, WA 98108
- Facility/Site No.: 2056
- VCP No.: NW1511

Dear Mr. Okel:

Thank you for submitting your independent remedial action report(s) for the Precision Engineering facility (Site) for review by the Washington State Department of Ecology (Ecology) under the Voluntary Cleanup Program (VCP). Ecology appreciates your initiative in pursuing this administrative option for cleaning up hazardous waste sites under the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

This letter constitutes an advisory opinion regarding whether the remedial action performed is sufficient to meet the specific substantive requirements of MTCA and its implementing regulations, Chapter 70.105D RCW and Chapter 173-340 WAC, for characterizing and addressing the following release(s) at the Site:

- Diesel and oil-range petroleum hydrocarbons in Soil and Ground Water
- Chromium and other metals in Soil and Ground Water
- Trichloroethene (TCE) in Soil, Ground Water, and Air

Ecology is providing this advisory opinion under the specific authority of RCW 70.105D.030(1)(i) and WAC 173-340-515(5).



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This opinion does not resolve a person's liability to the state under MTCA or protect a person from contribution claims by third parties for matters addressed by the opinion. The state does not have the authority to settle with any person potentially liable under MTCA except in accordance with RCW 70.105D.040(4). The opinion is advisory only and not binding on Ecology.

Ecology's Toxics Cleanup Program has reviewed the following information regarding your remedial action(s):

1. February 22, 2006, *Supplemental Remedial Investigation*, Maul Foster Alongi Inc.
2. November 23, 2005, *Work Plan for Soil and Groundwater Supplemental remedial Investigation*, Precision Engineering, Inc., Maul Foster Alongi Inc.
3. October 18, 2005, *Release Notification and Application to Request Assistance under Voluntary Cleanup Program*, Maul Foster Alongi Inc.
4. October, 6, 2005, *Precision Engineering, Inc., Addendum to Preliminary Soil and Groundwater Site Assessment Report*, Maul Foster Alongi Inc.
5. August 5, 2005, *Preliminary Soil and Groundwater Site Assessment Report*, Maul Foster Alongi Inc.
6. August 12, 1993, *Addendum to Independent Remedial Action Report*, Precision Engineering, Inc.
7. June 30, 1993, *Independent Remedial Action Report*, Precision Engineering, Inc.

The reports listed above will be kept in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. Appointments can be made by calling the NWRO resource contact, Sally Perkins, at (425) 649-7190.

The Site is defined by the extent of contamination caused by the following release(s):

- Diesel and oil-range petroleum hydrocarbons in Soil and Ground Water
- Chromium and other metals in Soil and Ground Water
- Trichloroethene (TCE) and its' breakdown products in Soil, Ground Water, and Air

The Site is more particularly described in Enclosure A to this letter, which includes a detailed Site diagram. The description of the Site is based solely on the information contained in the documents listed above.

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Based on a review of the independent remedial action report and supporting documentation listed above, **Ecology has determined that the remedial action described in the reports is not sufficient to meet the specific substantive requirements contained in MTCA and its implementing regulations, Chapter 70.105D RCW and Chapter 173-340 WAC, for characterizing the Site:**

What we mean specifically by “not sufficient” is that the full extent of soil, ground water, and air contamination has not yet been determined as required under MTCA. In other words, we know the Precision property is contaminated but do not yet know the full extent of the contaminated area (the Site). However, Ecology recognizes that Precision Engineering has already undertaken substantial remedial work in terms of both soil and ground water investigations and active cleanup, and that a great deal about the Site is now known. Our purpose in this letter is therefore to outline remaining characterization issues as a means of facilitating the remedial action process. These issues are as follows:

- Diesel- and oil-range petroleum hydrocarbons in ground water: Diesel-range and oil-range hydrocarbons were detected in all down gradient monitoring wells completed in the shallow water bearing zone. These wells are located at or near the property boundary. In three of the wells (MW-2, MW-6, and MW-8), the hydrocarbon concentrations exceeded applicable MTCA Method A cleanup levels. These data imply that the hydrocarbons extend off the Precision property onto adjacent properties. The full extent of this contamination needs to be empirically determined or modeled. If modeling is chosen, Ecology may, at a later date, request compliance monitoring at off-property locations.
- TCE and breakdown products in ground water: Initial sampling results show that only vinyl chloride is present above its' MTCA Method A cleanup level at the down gradient property boundary and in only one well, MW-8. Ecology recommends this well be re-sampled to confirm the initial sampling results. If the results are confirmed, it will be necessary to determine the full extent of contamination either empirically or through modeling, as discussed previously.
- TCE and breakdown products in soil vapor: TCE has been detected in soil beneath the Precision building floor at concentrations up to 1160 mg/kg and in shallow ground water beneath the building at similar concentrations. While these concentrations are not excessively high, they do indicate the potential for risk to human health through the inhalation of soil vapor containing TCE and its breakdown products. This risk should be evaluated through direct air sampling within the building, or through vapor transport modeling. If the Johnson and Ettinger vapor model is chosen, the most current version should be used, as available on EPA's website at www.epa.gov/ATHENS/learn2model/part-two/onsite/JnE_lite.htm.

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- Metals and petroleum hydrocarbons in ditch sediment: Sampling results for ditch sediment close to the Precision property show elevated concentrations of oil-range petroleum hydrocarbons and various heavy metals including hexavalent chromium, arsenic, cadmium, copper, and lead. It appears that only chromium is clearly associated with runoff from the Precision property. However, the complexity of storm drainage in the area makes the source of the other contaminants more ambiguous. This issue needs to be clarified. In addition, the full extent of the hexavalent chromium contamination in ditch sediment needs to be defined.

Please note that this letter does not provide an opinion on the sufficiency of any other remedial actions conducted at the Site or whether further remedial action is necessary to characterize and address all contamination at the Site. To obtain such an opinion, you must submit an independent remedial action report to Ecology upon completion of the cleanup action for the Site and request such an opinion under the VCP.

Please also 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 an 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 regarding this opinion, please contact me at (425) 649-7107.

Sincerely,



Mark Adams
NWRO Toxics Cleanup Program

Enclosures: Attachment A

Cc: Alistaire Clary, Maul Foster Alongi Inc.

ATTACHMENT A

Site Map - Precision Engineering, Inc.
1231 S. Director St., Seattle

APPROXIMATE SITE BOUNDARY

S. Director St. →

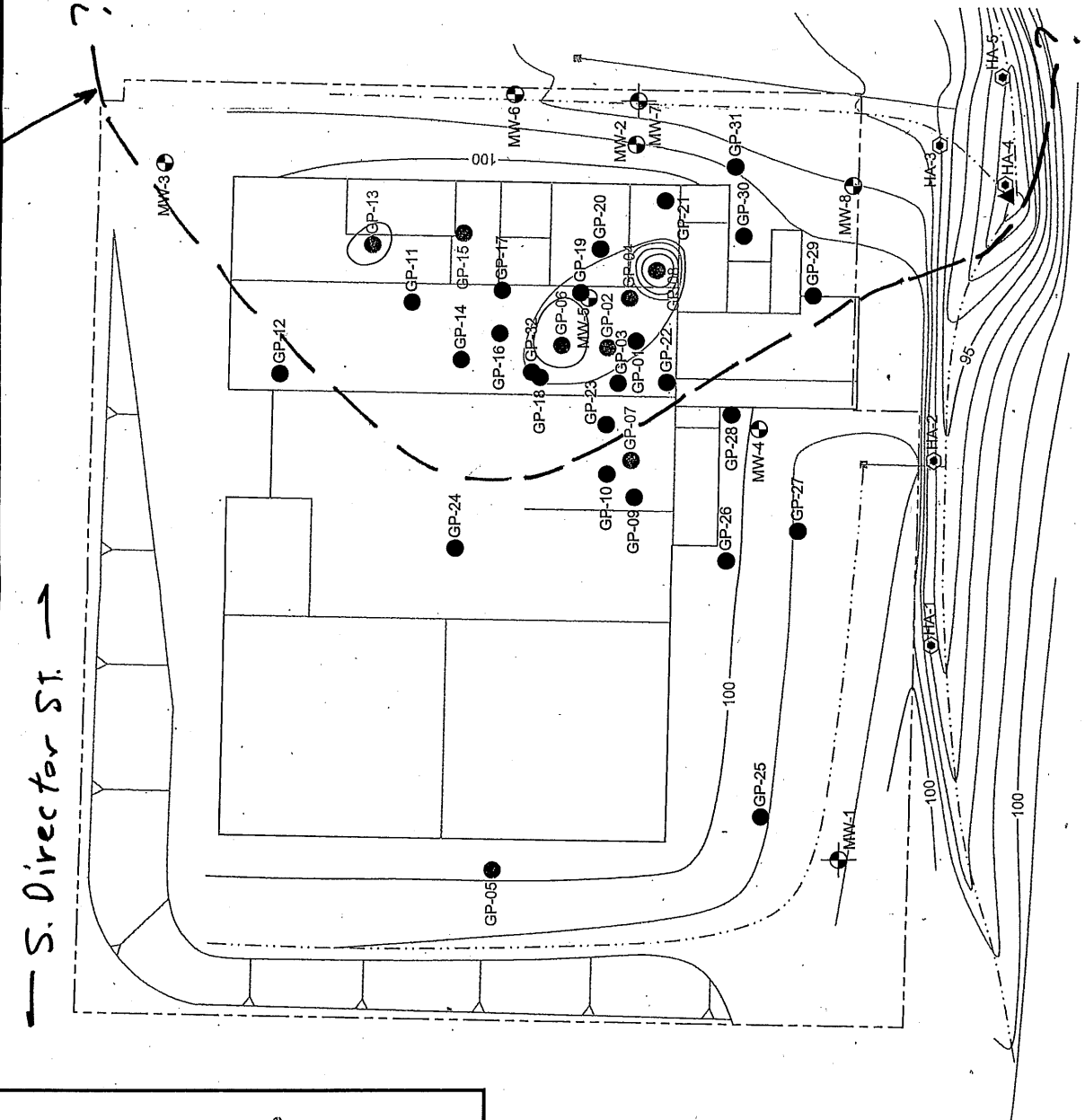
Note:
 Cleanup Level (CUL)
 exceedances shown are of
 MTCA method C groundwater
 CULs or as otherwise specified
 below:

- Hexavalent Chromium
 Exceedance
 (CUL = 0.105 mg/L)
- Trichloroethene Exceedance
 (CUL = 1.1 ug/L)
- Trivalent Chromium Exceedance
 (CUL = 52.5 mg/L)
- Diesel-Range Organics
 Exceedance
 (MTCA Method A CULs
 groundwater protection,
 CUL = 0.5 mg/L)
- Vinyl Chloride Exceedance
 (CUL = 0.29 ug/L)

Figure 5
 Reconnaissance Groundwater
 Cleanup Level Exceedances

Precision Engineering, Inc.
 Seattle, Washington

- Legend:
- Property Boundary
 - Drainage Ditch
 - Topographic Contour Interval
 - Shallow Monitoring Well Location
 - Deep Monitoring Well Location
 - Staff Gauge
 - Geoprobe Boring Location
 - Reconnaissance Groundwater Sample Location
 - Hand Auger Boring Location



MAUL
 FOSTER
 ALONGI INC.
 ENVIRONMENTAL & ENGINEERING CONSULTANTS
 Vancouver, WA | Portland, OR | www.MFAinc.org