

ENVIRONMENTAL INDICATOR (EI) RCRIS CODE (CA725)

Current Human Exposures Under Control

Facility Name: PACIFIC FABRICATORS
Facility Address: 4455 Marion St SE, Albany, OR 97322
Facility EPA ID #: ORD 151 093 267

1. Has all available relevant/significant information on known and reasonably suspected releases to soil, groundwater, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

- If yes - check here and continue with #2 below.
 If no - re-evaluate existing data, or
 If data not available skip to #6 and enter "IN" (more information needed) status code.

The Oregon DEQ Cleanup program file for Pacific Fabricators located in Eugene contained a 1993 clean-closure letter and a notice that the rest of the documents have been placed in storage with a business called Iron Mountain. Retrieving the files from storage was deemed problematic and too burdensome. For this environmental indicator review, the letter and the Cleanup Program's database called "Environmental Cleanup Site Information (ECSI)" was reviewed.

Pacific Fabricators went out of business around 2007. Since then, Triple C Construction has bought and now occupies the facility. As part of the purchase, Triple C Construction hired an environmental consultant to perform a Phase I and Phase II environmental assessment. Triple C Construction is reluctant to submit these reports. However, Oregon DEQ did visit the site to review these reports and took notes. From this review, Oregon DEQ believes all the relevant information has been reviewed.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Current Human Exposures Under Control" EI

A positive "Current Human Exposures Under Control" EI determination ("YE" status code) indicates that there are no "unacceptable" human exposures to "contamination" (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Current Human Exposures Under Control" EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program's overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

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2. Are groundwater, soil, surface water, sediments, or air **media** known or reasonably suspected to be “contaminated”¹ above appropriately protective risk-based “levels” (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)?

<u>“Contaminated” Media</u>	<u>Yes</u>	<u>No</u>	<u>?</u>	<u>Rationale / Key Contaminants</u>
Groundwater		✓		Phase II assessment did field screening for volatile organics and did not detect any. Metals were analyzed. Some metals were above MCLs, but only lead slightly exceeded Oregon DEQ occupational drinking water screening levels. Phase II report stated that the turbidity of the silt strata could cause the elevated lead concentrations. It would be difficult to conclude that the lead concentrations are from past practices.
Air (indoors)		✓		Phase II assessment evaluated the indoor air issue and concluded there is not a concern.
Soil (surface, e.g., <2 ft)		✓		Phase II assessment evaluated metal concentrations. Only barium and total chromium were detected. Total chromium was analyzed. There are screening values for trivalent chromium and hexavalent chromium. Green Diamond sandblast grit was known to be used. The MSDS ¹ for this type of sand blast grit reports chromium present as chromium oxide which is chromium in its trivalent state. Chromium (III) is relatively stable in the environment and it’s presumed that most of the chrome analyzed is Chromium (III). The amount detected is below the appropriate screening levels for Chromium (III).
Surface Water		✓		Review of the Phase II assessment states that onsite drainage flows into Oak Creek but onsite soil concentrations would conclude this pathway is not a concern.
Sediment		✓		Review of the Phase II assessment states that onsite drainage flows into Oak Creek but onsite soil concentrations would indicate this pathway is not a concern.
Soil (subsurface e.g., >2 ft)		✓		Given that DEQ issued a clean closure approval in 1993, and the only known waste management issue since then was the ground application of sand blast grit, there is no indication that below surface soil is contaminated.
Air (outdoors)		✓		Review of the data concludes outdoor air is not an issue.

¹ <http://www.targetproducts.com/UserContent/MSDS/English/Green%20Diamond%20Abrasive%20Products.PDF>

- If no** (for all media) - skip to #6, and enter "YE," status code after providing or citing appropriate "levels," and referencing sufficient supporting documentation demonstrating that these "levels" are not exceeded.
- If yes** (for any media) - continue after identifying key contaminants in each "contaminated" medium, citing appropriate "levels" (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.
- If unknown** (for any media) - skip to #6 and enter "IN" status code.

Rationale and Reference(s):

SUMMARY

To fulfill the environmental indicators reporting requirement, DEQ conducted a non-financial record review for Pacific Fabricators. DEQ determined that the facility owner/operator went out of business and the property was purchased by a new owner that has not reported any hazardous waste generation. DEQ reviewed the current owner's site assessment reports for information about historical releases that would be subject to RCRA corrective action, although of course the reports main purpose was to assess any general environmental liability for the prospective purchaser. The assessments included soil and groundwater sampling results. There is no information that contaminants were released to soil and groundwater from Pacific Fabricators and subject to RCRA corrective action.

NARRATIVE

ODEQ issued a letter on June 9, 1993, stating DEQ's acceptance of the clean-closure activities at the regulated unit. The releases subject to RCRA corrective action were ethyl benzene, methyl ethyl ketone, toluene and xylenes. Facility assessment and cleanup were completed and the RCRA corrective action process was terminated of DEQ with the June 9, 1993, letter. The letter further stated that with the removal of all monitoring wells and installation of a concrete pad, the ODEQ Stipulation and Final Order No. HW-WVR-88-04 will be satisfied. ODEQ presumes that without any documentation that states that this work was not done, that it is likely Pacific Fabricators did this work

After Pacific Fabricators completed its required corrective action as confirmed by the DEQ clean closure letter of June 9, 1993, the RCRA corrective action program established the environmental indicators reporting requirement which this report is part of.

From the ODEQ Cleanup Program database, Environmental Cleanup Site Information (ECSI), only soil is listed as the contaminated media. See: <http://www.deq.state.or.us/lq/ECSI/ecsidetail.asp?seqnbr=308>

From a phone discussion with the Albany Chamber of Commerce, Pacific Fabricators went out of business within the last year or more (interview, September 21, 2010).

Lisa Freeman, a DEQ inspector, who also provides technical assistance, visited the site in 2007 to provide technical assistance on what Pacific Fabricators needs to do in order to sell the property. She stated there was at least an issue dealing with chromium from Green Diamond sandblast grit operations (interview, September 18, 2007).

Since 2007, Pacific Fabricators left and a new company, Triple C Construction, currently owns the property. DEQ learned from Dan Cooper, owner of Triple C Construction, that an environmental assessment was done before he purchased the property. However, Mr. Cooper was leery of submitting the environmental documentation. To assess the environmental status of the property, and determine whether DEQ should use its authority and obtain a copy of the documentation, a meeting was scheduled onsite to review the environmental documents.

Fredrick Moore, a DEQ permit writer, visited the site on May 18, 2011, to meet with Mr. Cooper and

review the environmental documentation.

Environmental documentation included a Phase I Environmental Site Assessment developed by Bergeson Boese & Associates, Inc., and dated April 6, 2010. There was also a Focused Phase II Environmental Site Assessment dated April 15, 2011. Mr. Cooper was still reluctant to let DEQ have these documents. From the onsite review of the documents it was found that environmental work done by the consultants included two push probe locations that went down to groundwater at 20 feet below ground surface and a soil sample assessment of leftover grit on the soil surface. The tables below show metal sampling results as compared to DEQ and EPA screening values. Groundwater was field tested for volatile organic compounds (VOCs) using a photoionization detector (PID) and no VOCs were detected.

Table 1

Comparison of Pacific Fabricator Environmental Data to EPA Screening Level Concentrations

Metals ¹	Groundwater Push Probe 1 ¹ (mg/l)	Groundwater Push Probe 2 ¹ (mg/l)	Grit Soil Sample ¹ (mg/kg)	EPA Screening Value Groundwater MCLs ³ (mg/l)	EPA Screening Value Industrial Soil ^{3,10} (mg/kg)
Arsenic	.0391	.0774	ND	.01	1.6
Barium	1.85	13.8	6.39	2.0	190,000
Cadmium	ND	.00854	ND	.005	800
Chromium	.169	1.58	1,320	.10 ⁴	150,000 ⁵ /5.6 ⁵
Lead	.098	.830	ND	.015	800
Selenium	ND	.00252	ND	.05	5,100
Silver	ND	.00250	ND	.18 ²	5,100
Mercury	.0035	.00215	ND	.002	43.0

¹From Focused Phase II Environmental Site Assessment (Pacific Fabricators Site), Bergeson Boese & Assoc., April 15, 2011

²Tapwater

³From EPA Region 6 Regional Screening Level (RSL) Summary Table at: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/Generic_Tables/pdf/master_sl_table_run_JUN2011.pdf

⁴For Total Chromium

⁵For Chromium (III), Insoluble Salts

⁶For Chromium (VI)

Table 2

Comparison of Pacific Fabricator Environmental Data to DEQ Screening Level Concentrations

Metals ¹	Groundwater Push Probe 1 ¹ (mg/l)	Groundwater Push Probe 2 ¹ (mg/l)	Grit Soil Sample ¹ (mg/kg)	DEQ Screening Value Groundwater Occupational ⁷ (mg/l)	DEQ Screening Value Soil Occupational ⁷ (mg/kg)
Arsenic	.0391	.0774	ND	.27	1.7
Barium	1.85	13.8	6.39	29.0	>Max ⁸
Cadmium	ND	.00854	ND	.073	500
Chromium	.169	1.58	1,320	>Max	>Max/190 ⁹
Lead	.098	.830	ND	.015	800
Selenium	ND	.00252	ND	NA	NA
Silver	ND	.00250	ND	.73	5,100
Mercury	.0035	.00215	ND	.044	310

⁷From DEQ's Table of Risk-Based Concentrations at: <http://www.deq.state.or.us/lq/pubs/docs/RBDMTable.pdf>

⁸>The designation ">Max" means the constituent risk based concentration (RBC) for this pathway is greater than 100,000 mg/kg or 100,000 mg/L. The Department believes it is highly unlikely that such concentrations will ever be encountered.

⁹>Max for Chromium (III) and 190 mg/kg for Chromium (VI).

¹⁰Pacific Fabricators is located in a light industrial zone seen at <http://infohub.cityofalbany.net/publicdata/PrintableMaps/zoning.pdf>

There is no exposure to human consumption from groundwater at the site. The Phase I report states there is an onsite well but Dan Cooper confirmed at the May 18 meeting that it is not used and the facility is serviced by city water lines. Dan Cooper stated that the well goes down to about 100 feet as compared to the groundwater that was sampled at 20 feet. Attached to the Phase I report is a site assessment report (dated October 1991) developed by Ecology and Environment, Inc., for EPA Region 10 that states that Albany provides drinking water within 4 miles radius of the facility.

From the soil/grit sample, chromium is present and reported as 1320 mg/kg for total chromium. EPA and DEQ screening levels for chromium are stated for chromium (III) and chromium (VI). And even though the 1320 mg/kg is above the EPA and DEQ chromium (VI) screening levels of 5.6 and 190 mg/kg,

respectively, it is estimated that the majority of the 1320 mg/kg total chromium is chromium (III) due to the fact chromium (III) is much more prevalent in the environment and chromium (VI) is less stable in the environment. The detected value of 1320 mg/kg total chromium is less than the EPA and DEQ screening value of 150,000 mg/kg and >Max, respectively. According to Dan Cooper, the facility has been cleared of the debris and grit piles that were there, and all that is left is remnant grit that has blown over the extent of the property. From an in-house discussion with the ODEQ Cleanup program, they consider this site a low priority based on likely risks posed and do not plan on follow-up actions. However, the ODEQ Cleanup program while agreeing with the conclusion of this EI evaluation, this evaluation does not serve as a formal "no further action" determination.

In answering this question #2, it asks if there are concentrations above protective risk-based limits "from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)." With the clean closure determination issued by Oregon DEQ in 1993 there is no longer a regulated unit (RU) at the site. Whether the metals in groundwater or the chromium and barium found in the soil/grit were the result of mismanaged RCRA hazardous waste cannot be determined or presumed. Therefore it is not known if a solid waste management unit (SWMU) is present. An area of contamination (AOC) could be present but uncertain if RCRA authority can address it. Triple C construction has not notified Oregon DEQ that it is a small or large quantity generator. If there were an environmental concern at the former Pacific Fabricator site, Oregon DEQ would use its Cleanup authority.

Footnotes:

- ¹. "Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based "levels" (for the media, that identify risks within the acceptable risk range).
- ². Recent evidence (from the Colorado Dept. of Public Health and Environment, and others) suggest that unacceptable indoor air concentrations are more common in structures above groundwater with volatile contaminants than previously believed. This is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in structures located above (and adjacent to) groundwater with volatile contaminants) does not present unacceptable risks.

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3. Are there **complete pathways** between “contamination” and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

Summary Exposure Pathway Evaluation Table

Potential **Human Receptors** (Under Current Conditions)

“Contaminated” Media Residents Workers Day-Care Construction Trespassers Recreation Food³

Groundwater	--	--	--	--	--	--	--
Air (indoors)	--	--	--	--	--	--	--
Soil (surface, e.g., <2 ft)	--	--	--	--	--	--	--
Surface Water	--	--	--	--	--	--	--
Sediment	--	--	--	--	--	--	--
Soil (subsurface e.g., >2 ft)	--	--	--	--	--	--	--
Air (outdoors)	--	--	--	--	--	--	--

Instructions for Summary Exposure Pathway Evaluation Table:

- Strike-out specific Media including Human Receptors’ spaces for Media which are not “contaminated”) as identified in #2 above.
- Enter “yes” or “no” for potential “completeness” under each “Contaminated” Media -- Human Receptor combination (Pathway).

Note: In order to focus the evaluation to the most probable combinations some potential “Contaminated” Media - Human Receptor combinations (Pathways) do not have check spaces (“___”). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

- If no** (pathways are not complete for any contaminated media-receptor combination) - skip to #6, and enter “YE” status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet to analyze major pathways).
- If yes** (pathways are complete for any “Contaminated” Media - Human Receptor combination) - continue after providing supporting explanation.
- If unknown** (for any “Contaminated” Media - Human Receptor combination) - skip to #6 and enter “IN” status code

Rationale and Reference(s):

Footnotes:

³ Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.)

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4. Can the **exposures** from any of the complete pathways identified in #3 be reasonably expected to be **“significant”**⁴ (i.e., potentially “unacceptable” because exposures can be reasonably expected to be: (1) greater in magnitude (intensity, frequency and/or duration) than assumed in the derivation of the acceptable “levels” (used to identify the “contamination”); or (2) the combination of exposure magnitude (perhaps even though low) and contaminant concentrations (which may be substantially above the acceptable “levels”) could result in greater than acceptable risks)?
- If no** (exposures can not be reasonably expected to be significant (i.e., potentially “unacceptable”) for any complete exposure pathway) - skip to #6 and enter “YE” status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to “contamination” (identified in #3) are not expected to be “significant.”
- If yes** (exposures could be reasonably expected to be “significant” (i.e., potentially “unacceptable”) for any complete exposure pathway) - continue after providing a description (of each potentially “unacceptable” exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining complete pathways) to “contamination” (identified in #3) are not expected to be “significant.”
- If unknown** (for any complete pathway) - skip to #6 and enter “IN” status code

Rationale and Reference(s):

Footnotes:

⁴ If there is any question on whether the identified exposures are “significant” (i.e., potentially “unacceptable”) consult a human health Risk Assessment specialist with appropriate education, training and experience.

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5. Can the “significant” exposures (identified in #4) be shown to be within acceptable limits?
- If yes** (all “significant” exposures have been shown to be within acceptable limits) - continue and enter “YE” after summarizing and referencing documentation justifying why all “significant” exposures to “contamination” are within acceptable limits (e.g., a site-specific Human Health Risk Assessment).
 - If no** (there are current exposures that can be reasonably expected to be “unacceptable”)- continue and enter “NO” status code after providing a description of each potentially “unacceptable” exposure.
 - If unknown** (for any potentially “unacceptable” exposure) - continue and enter “IN” status code

Rationale and Reference(s):

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6. Check the appropriate RCRIS status codes for the Current Human Exposures Under Control EI event code (CA725), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (and attach appropriate supporting documentation as well as a map of the facility):

- YE - Yes**, "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in this EI Determination, "Current Human Exposures" are expected to be "Under Control" at the **PACIFIC FABRICATORS** facility, EPA ID **#ORD 151093267**, located at **4455 Marion St SE, Albany, OR 97322**, under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.
- NO** - "Current Human Exposures" are NOT "Under Control."
- IN** - More information is needed to make a determination.

Completed By:

Fredrick Moore
(Signature)

9/14/2011
(Date)

Fredrick Moore
(Print Name)

Hazardous Waste Permit Writer
(Title)

Supervisor:

Elizabeth Druback
(Signature)

9/16/2011
(Date)

Elizabeth Druback
(Print Name)

Manager, Eastern Region Hazardous Waste Program
(Title)

Oregon Department of Environmental Quality
(EPA Region or State)

Locations where References may be found:

DEQ – Eugene Office, 165 E. 7th Ave. Suite 100, Eugene, OR 97401
DEQ – Bend Office, 475 NE Bellevue Dr. Suite 110, Bend, OR 97701

Contact telephone and E-mail numbers:

Fredrick Moore
(Name)

541.633.2011
(Phone Number)

moore.fredrick@deq.state.or.us
(E-Mail)

FINAL NOTE: THE HUMAN EXPOSURES EI IS A QUALITATIVE SCREENING OF EXPOSURES AND THE DETERMINATIONS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.

ENVIRONMENTAL INDICATOR (EI) RCRIS CODE (CA750)

Migration of Contaminated Groundwater Under Control

Facility Name: PACIFIC FABRICATORS
Facility Address: 4455 Marion St SE, Albany, OR 97322
Facility EPA ID #: ORD 151 093 267

1. Has all available relevant/significant information on known and reasonably suspected releases to the groundwater media, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

- If yes - check here and continue with #2 below.
- If no - re-evaluate existing data, or
- If data are not available, skip to #8 and enter "IN" (more information needed) status code.

The Oregon DEQ Cleanup program file for Pacific Fabricators located in Eugene contained a 1993 clean-closure letter and a notice that the rest of the documents have been placed in storage with a business called Iron Mountain. Retrieving the files from storage was deemed problematic and too burdensome. For this environmental indicator review, the letter and the Cleanup Program's database called "Environmental Cleanup Site Information (ECSI)" were reviewed.

Pacific Fabricators went out of business around 2007. Since then, Triple C Construction has bought and now occupies the facility. As part of the purchase, Triple C Construction hired an environmental consultant to perform a Phase I and Phase II environmental assessment. Triple C Construction is reluctant to submit these reports. However, Oregon DEQ did visit the site to review these reports and took notes. From this review, Oregon DEQ believes all the relevant information has been reviewed.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Migration of Contaminated Groundwater Under Control" EI

A positive "Migration of Contaminated Groundwater Under Control" EI determination ("YE" status code) indicates that the migration of "contaminated" groundwater has stabilized, and that monitoring will be conducted to confirm that contaminated groundwater remains within the original "area of contaminated groundwater" (for all groundwater "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Migration of Contaminated Groundwater Under Control" EI pertains ONLY to the physical migration (i.e., further spread) of contaminated ground water and contaminants within groundwater (e.g., non-aqueous phase liquids or NAPLs). Achieving this EI does not substitute for achieving other stabilization or final remedy requirements and expectations associated with sources of contamination and the need to restore, wherever practicable, contaminated groundwater to be suitable for its designated current and future uses.

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

Migration of Contaminated Groundwater Under Control
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2. Is groundwater known or reasonably suspected to be “contaminated”¹ above appropriately protective “levels” (i.e., applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action, anywhere at, or from, the facility?
- If yes - continue after identifying key contaminants, citing appropriate “levels,” and referencing supporting documentation.
- If no - skip to #8 and enter “YE” status code, after citing appropriate “levels,” and referencing supporting documentation to demonstrate that groundwater is not “contaminated.”
- If unknown - skip to #8 and enter “IN” status code.

Rationale and Reference(s):

SUMMARY

To fulfill the environmental indicators reporting requirement, DEQ conducted a non-financial record review for Pacific Fabricators. DEQ determined that the facility owner/operator went out of business and the property was purchased by a new owner that has not reported any hazardous waste generation. DEQ reviewed the current owner's site assessment reports for information about historical releases that would be subject to RCRA corrective action, although of course the reports main purpose was to assess any general environmental liability for the prospective purchaser. The assessments included ground water sampling results indicating that groundwater is contaminated above the appropriate DEQ screening level for lead. There is no information that lead was released to groundwater from Pacific Fabricators and subject to RCRA corrective action.

NARRATIVE

ODEQ issued a letter on June 9, 1993, stating DEQ's acceptance of the clean-closure activities at the regulated unit. The releases subject to RCRA corrective action were ethyl benzene, methyl ethyl ketone, toluene and xylenes. Facility assessment and cleanup were completed and the RCRA corrective action process was terminated of DEQ with the June 9, 1993, letter. The letter further stated that with the removal of all monitoring wells and installation of a concrete pad, the ODEQ Stipulation and Final Order No. HW-WVR-88-04 will be satisfied. ODEQ presumes that without any documentation that states that this work was not done, that it is likely Pacific Fabricators did this work. However, the Oregon Water Resources Department's website only lists the two probe locations (done in 2007) and no mention of installation and abandonment of other groundwater monitoring wells at 4455 SE Marion St. See: <http://www.deq.state.or.us/Webdocs/Controls/Output/PdfHandler.ashx?p=256872f0-b43f-4652-86fe-c8d962bb24f7.pdf>

After Pacific Fabricators completed its required corrective action as confirmed by the DEQ clean closure letter of June 9, 1993, the RCRA corrective action program established the environmental indicators reporting requirement which this report is part of.

In the ODEQ Cleanup Program ECSI database, for Pacific Fabricators it lists that the ODEQ Cleanup Program made a no further action determination in March 2002. The ECSI database lists only soil as the contaminated media.

From a phone discussion with the Albany Chamber of Commerce, Pacific Fabricators went out of business within the last year. (interview, September 21, 2010)

Lisa Freeman, a DEQ inspector, visited the site in 2007 to provide technical assistance on what Pacific Fabricators needs to do in order to sell the property. She stated there was at least an issue dealing with chromium from Green Diamond brand sandblast grit operations.

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Cadmium	ND	.00854	ND	.005	800
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Lead	.098	.830	ND	.015	800
Selenium	ND	.00252	ND	.05	5,100
Silver	ND	.00250	ND	.18 ²	5,100
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⁴For Total Chromium

⁵For Chromium (III), Insoluble Salts

⁶For Chromium (VI)

Table 2

Comparison of Pacific Fabricator Environmental Data to DEQ Screening Level Concentrations

Metals ¹	Groundwater Push Probe 1 ¹ (mg/l)	Groundwater Push Probe 2 ¹ (mg/l)	Grit Soil Sample ¹ (mg/kg)	DEQ Screening Value Groundwater Occupational ⁷ (mg/l)	DEQ Screening Value Soil Occupational ⁷ (mg/kg)
Arsenic	.0391	.0774	ND	.27	1.7
Barium	1.85	13.8	6.39	29	>Max ⁸
Cadmium	ND	.00854	ND	.073	500
Chromium	.169	1.58	1,320	>Max	>Max/190 ⁹
Lead	.098	.830	ND	.015	800
Selenium	ND	.00252	ND	NA	NA
Silver	ND	.00250	ND	.73	5,100
Mercury	.0035	.00215	ND	.044	310

¹From DEQ's Table of Risk-Based Concentrations at: <http://www.deq.state.or.us/lq/pubs/docs/RBDMTable.pdf>

⁸>Max The constituent RBC for this pathway is greater than 100,000 mg/kg or 100,000 mg/L. The Department believes it is highly unlikely that such concentrations will ever be encountered.

⁹>Max for Chromium (III) and 190 mg/kg for Chromium (VI).

In comparison to EPA MCLs, groundwater sampling showed slight exceedances in arsenic, barium, cadmium, chromium and mercury. There is a significant exceedance in comparison to the lead MCL. As was discussed in the Human Exposure section, local groundwater is not used for drinking water. Albany City Public Works provides drinking water to the surrounding area within a 4 mile radius of Pacific Fabricators.

In comparison to Oregon risk-based screening levels, only lead shows a concentration level above the screening limit. The Phase II Report states that the shallow aquifer use is unlikely, but should not be used for consumption. The Report also states that the high lead level cannot be traced to any previous Pacific Fabricator activity and likely due to the high silt content in the shallow aquifer.

From an in-house discussion with the ODEQ Cleanup program, they consider this site a low priority based on likely risks posed and do not plan on follow-up actions. However, the ODEQ Cleanup program while agreeing with the conclusion of this EI evaluation, this evaluation does not serve as a formal "no further action" determination.

In answering this question #2, it asks if there are concentrations in groundwater above protective risk-based limits "from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)." With the clean closure determination issued by Oregon DEQ in 1993, there is no longer a regulated unit (RU) at the site. Whether the metals in groundwater were the result of mismanaged RCRA hazardous waste since 1993 cannot be determined or presumed. Therefore it is not known if a solid waste management unit (SWMU) is present. Any area of contamination (AOC) could be present but uncertain if RCRA authority can address it. Triple C construction has not notified Oregon DEQ that it is a small or large quantity generator. If there were an environmental concern regarding the groundwater at the former Pacific Fabricator site, Oregon DEQ would use its Cleanup authority.

Footnotes:

¹. "Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriate "levels" (appropriate for the protection of the groundwater resource and its beneficial uses).

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3. Has the **migration** of contaminated groundwater **stabilized** (such that contaminated groundwater is expected to remain within “existing area of contaminated groundwater”² as defined by the monitoring locations designated at the time of this determination)?
- If yes**, continue, after presenting or referencing the physical evidence (e.g., groundwater sampling/measurement/migration barrier data) and rationale why contaminated groundwater is expected to remain within the (horizontal or vertical) dimensions of the “existing area of groundwater contamination”²).
 - If no**, (contaminated groundwater is observed or expected to migrate beyond the designated locations defining the “existing area of groundwater contamination”²) - skip to #8 and enter “NO” status code, after providing an explanation.
 - If unknown** - skip to #8 and enter “IN” status code.

Rationale and Reference(s):

Footnotes:

² “Existing area of contaminated groundwater” is an area (with horizontal and vertical dimensions) that has been verifiably demonstrated to contain all relevant groundwater contamination for this determination, and is defined by designated (monitoring) locations proximate to the outer perimeter of “contamination” that can and will be sampled/tested in the future to physically verify that all “contaminated” groundwater remains within this area, and that the further migration of “contaminated” groundwater is not occurring. Reasonable allowances in the proximity of the monitoring locations are permissible to incorporate formal remedy decisions (i.e., including public participation) allowing a limited area for natural attenuation.

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4. Does "contaminated" groundwater **discharge** into **surface water** bodies?

- If yes** - continue after identifying potentially affected surface water bodies.
- If no** - skip to #7 (and enter a "YE" status code in #8, if #7 = yes) after providing an explanation and/or referencing documentation supporting that groundwater "contamination" does not enter surface water bodies.
- If unknown** - skip to #8 and enter "IN" status code.

Rationale and Reference(s):

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5. Is the **discharge** of “contaminated” groundwater into surface water likely to be “**insignificant**” (i.e., the maximum concentration³ of each contaminant discharging into surface water is less than 10 times their appropriate groundwater “level,” and there are no other conditions (e.g., the nature, and number, of discharging contaminants, or environmental setting), which significantly increase the potential for unacceptable impacts to surface water, sediments, or ecosystems at these concentrations)?

If yes - skip to #7 (and enter “YE” status code in #8 if #7 = yes), after documenting:
(1) the maximum known or reasonably suspected concentration³ of key contaminants discharged above their groundwater “level,” the value of the appropriate “level(s),” and if there is evidence that the concentrations are increasing; and (2) provide a statement of professional judgement/explanation (or reference documentation) supporting that the discharge of groundwater contaminants into the surface water is not anticipated to have unacceptable impacts to the receiving surface water, sediments, or ecosystem.

If no - (the discharge of “contaminated” groundwater into surface water is potentially significant) - continue after documenting: (1) the maximum known or reasonably suspected concentration³ of each contaminant discharged above its groundwater “level,” the value of the appropriate “level(s),” and if there is evidence that the concentrations are increasing; and (2) for any contaminants discharging into surface water in concentrations³ greater than 100 times their appropriate groundwater “levels,” the estimated total amount (mass in kg/yr) of each of these contaminants that are being discharged (loaded) into the surface water body (at the time of the determination), and identify if there is evidence that the amount of discharging contaminants is increasing.

If unknown - enter “IN” status code in #8.

Rationale and Reference(s):

Footnotes:

³ As measured in groundwater prior to entry to the groundwater-surface water/sediment interaction (e.g., hyporheic) zone.

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6. Can the **discharge** of “contaminated” groundwater into surface water be shown to be “**currently acceptable**” (i.e., not cause impacts to surface water, sediments or ecosystems that should not be allowed to continue until a final remedy decision can be made and implemented⁴)?

If yes - continue after either: (1) identifying the Final Remedy decision incorporating these conditions, or other site-specific criteria (developed for the protection of the site’s surface water, sediments, and ecosystems), and referencing supporting documentation demonstrating that these criteria are not exceeded by the discharging groundwater; OR (2) providing or referencing an interim-assessment,⁵ appropriate to the potential for impact, that shows the discharge of groundwater contaminants into the surface water is (in the opinion of a trained specialists, including ecologist) adequately protective of receiving surface water, sediments, and ecosystems, until such time when a full assessment and final remedy decision can be made. Factors which should be considered in the interim-assessment (where appropriate to help identify the impact associated with discharging groundwater) include: surface water body size, flow, use/classification/habitats and contaminant loading limits, other sources of surface water/sediment contamination, surface water and sediment sample results and comparisons to available and appropriate surface water and sediment “levels,” as well as any other factors, such as effects on ecological receptors (e.g., via bio-assays/benthic surveys or site-specific ecological Risk Assessments), that the overseeing regulatory agency would deem appropriate for making the EI determination.

If no - (the discharge of “contaminated” groundwater can not be shown to be “**currently acceptable**”) - skip to #8 and enter “NO” status code, after documenting the currently unacceptable impacts to the surface water body, sediments, and/or ecosystems.

If unknown - skip to 8 and enter “IN” status code.

Rationale and Reference(s):

Footnotes:

⁴ Note, because areas of inflowing groundwater can be critical habitats (e.g., nurseries or thermal refugia) for many species, appropriate specialist (e.g., ecologist) should be included in management decisions that could eliminate these areas by significantly altering or reversing groundwater flow pathways near surface water bodies.

⁵ The understanding of the impacts of contaminated groundwater discharges into surface water bodies is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration to be reasonably certain that discharges are not causing currently unacceptable impacts to the surface waters, sediments or ecosystems.

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7. Will groundwater **monitoring** / measurement data (and surface water/sediment/ecological data, as necessary) be collected in the future to verify that contaminated groundwater has remained within the horizontal (or vertical, as necessary) dimensions of the "existing area of contaminated groundwater?"
- If yes** - continue after providing or citing documentation for planned activities or future sampling/measurement events. Specifically identify the well/measurement locations which will be tested in the future to verify the expectation (identified in #3) that groundwater contamination will not be migrating horizontally (or vertically, as necessary) beyond the "existing area of groundwater contamination."
 - If no** - enter "NO" status code in #8.
 - If unknown** - enter "IN" status code in #8.

Rationale and Reference(s):

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8. Check the appropriate RCRIS status codes for the Migration of Contaminated Groundwater Under Control EI (event code CA750), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (attach appropriate supporting documentation as well as a map of the facility).
- YE** - Yes, "Migration of Contaminated Groundwater Under Control" has been verified. Based on a review of the information contained in this EI determination, it has been determined that the "Migration of Contaminated Groundwater" is "Under Control" at the **PACIFIC FABRICATORS** facility, EPA ID #**ORD 151 093 267**, located at **4455 Marion St SE, Albany, OR 97322**. Specifically, this determination indicates that the migration of "contaminated" groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the "existing area of contaminated groundwater." This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.
- NO** - Unacceptable migration of contaminated groundwater is observed or expected.
- IN** - More information is needed to make a determination.

Completed By:

Fredrick Moore
(Signature)

9/14/2011
(Date)

Fredrick Moore
(Print Name)

Hazardous Waste Permit Writer
(Title)

Supervisor:

Elizabeth Druback
(Signature)

9/14/2011
(Date)

Elizabeth Druback
(Print Name)

Manager, Eastern Region Hazardous Waste Program
(Title)

Oregon Department of Environmental Quality
(EPA Region or State)

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