

**STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY**

**In the Matter of Remedial Action by:**

**Barbee Mill Co., Inc.**

**SECOND AMENDMENT TO  
AGREED ORDER**

**No. DE 5396**

**TO: Barbee Mill Co., Inc.  
Attention: Mr. Robert Cugini, Vice President  
P.O. Box 359  
Renton, WA 98057**

**I. INTRODUCTION**

Agreed Order No. DE 5396 (Order) entered into by the State of Washington, Department of Ecology (Ecology) and Barbee Mill Co., Inc. (Barbee Mill) on December 1, 2009, and amended on December 16, 2010, (First Amendment) requires that Barbee Mill perform certain interim actions at the Site.

By this Second Amendment to Agreed Order No. DE 5396 (Second Amendment), Ecology requires Barbee Mill to:

1. Conduct additional interim action activities at the Site.
2. Complete a remedial investigation/feasibility study (RI/FS) report.
3. Complete a draft Cleanup Action Plan (DCAP).

Ecology believes the actions required by this Second Amendment are in the public interest.

This Second Amendment does not attempt to recite all of the provisions of the Order or the First Amendment. Provisions of the Order or the First Amendment not specifically changed in this Second Amendment remain in full force and effect.

**II. JURISDICTION**

This Second Amendment is issued pursuant to the authority of RCW 70.105D.050(1).

### III. AMENDMENTS

#### **Work to be Performed, Section VII. of the Order is Amended:**

The Order, Section VII. (Work to be Performed), is hereby amended to add the following requirements:

#### **F. Additional Interim Remedial Actions**

1. Submit to Ecology a final Interim Action Design and Implementation Report within thirty (30) days after receiving Ecology's comments on the draft Interim Action Design and Implementation Report.
2. Submit to Ecology a final Barbee Mill Sediment Data Gaps Evaluation Report within thirty (30) days after receiving Ecology's comments on the draft Barbee Mill Sediment Data Gaps Evaluation Report.
3. The interim action groundwater extraction and treatment system required under the Order was shut down in August 2011. Groundwater conditions will be monitored as provided in Section VII.F.4. Barbee Mill and Ecology will evaluate the groundwater monitoring results. Based on the groundwater monitoring data evaluation, Ecology will determine the need for future system operation, in consultation with Barbee Mill. Should Ecology determine that it is necessary to restart the groundwater extraction and treatment system, Ecology shall send Barbee Mill written notice of its determination. Within ten (10) calendar days of receiving such written notice, Barbee Mill shall restart the ground water extraction and treatment system and continue to operate and maintain it in accordance with the Operation and Maintenance Manual (Aspect 2009).
4. Monitoring groundwater in accordance with the final Performance Monitoring Plan, March 15, 2010 (Aspect 2010a) and the recommendations of the draft Performance Monitoring Report, July 6, 2010 (Aspect 2010c). A monitoring schedule (revised Table 2 of the Performance Monitoring Plan) based on the recommendations of the draft Performance Evaluation Report and the August 2011 shutdown date for the pump-and-treat system is provided in Exhibit F and is an integral and enforceable part of the Order. Proposed revisions to the

monitoring schedule will be identified in the annual Performance Monitoring Report described below.

5. Completing annually by July 31, a Performance Monitoring Report that summarizes the results of performance monitoring, an evaluation of PAZ effectiveness, a discussion of trends in arsenic concentration relative to the cleanup level, and re-evaluation of restoration time frame. While the groundwater extraction and treatment system is turned off, the Performance Monitoring Report will evaluate any changes to contaminant concentrations in groundwater.

6. Installation of a gravel layer on top of sand layer of the storm water detention pond. Gravel layer is planned for installation upon completion of all the houses at Conner Homes at the Site. Final construction shall be completed no later than 30 days after release of the City of Renton's Maintenance Bond number 334518S. It is Conner Homes responsibility for installation of the gravel layer.

G. Remedial Investigation

Barbee Mill shall conduct a remedial investigation (RI) that meets the requirements of Chapter 173-340 WAC, including WAC 173-340-350. The RI shall include a description of the following site activities and characteristics:

- Site history and sources of contamination
- Previous environmental investigations
- Interim remedial actions
- Nature and extent of contamination in soil, groundwater, and sediments
- Environmental relationship between this Site and Quendall Terminals
- Contaminant fate and transport processes
- Potential human and ecological receptors and exposure pathways

Barbee Mill shall complete the RI Report as follows:

1. Submittal of a Preliminary RI Report for Ecology review and comment within 120 days from the effective date of the Second Amendment. The Preliminary RI Report shall include all information and data collected to date regarding the Site. This information and data

will include updating the groundwater flow and contaminant fate-and-transport models previously developed for the Site using the most current information.

2. Submittal of a draft RI Report for Ecology review and comment within 90 days of receipt of data on the June 2012 groundwater monitoring event or within 90 days from receipt of Ecology's comments on the Preliminary RI Report (whichever is latest). The draft RI Report will incorporate Ecology comments on the Preliminary RI Report and evaluate site monitoring data collected through June 2012. The findings, analyses and conclusions of the Preliminary RI Report will be revised as appropriate based on the additional data.

3. Submittal of a final RI Report within thirty (30) days of receipt of Ecology's comments on the draft RI Report. The final RI Report will incorporate Ecology's comments on the draft RI Report.

4. The Preliminary RI Report, draft RI Report, and final RI Report shall be completed according to the schedule in Exhibit G (Additional Schedule of Deliverables).

#### H. Feasibility Study

Barbee Mill shall conduct a feasibility study (FS) for proposed Site cleanup that meets the requirements of Chapter 173-340 WAC, including WAC 173-340-350 through 370. The FS shall include the following:

- Remedial action objectives, including chemicals of concern, cleanup levels, and points of compliance for contaminated media;
- Description of interim actions previously implemented at the Site;
- A screening of potentially applicable technologies. In order to simplify the development of remedial alternatives, the screening process will remove from further consideration technologies that are not applicable or technically possible at the Site, that can be represented by other comparable technologies, or whose costs are clearly disproportionate under WAC 173-340-360(3)(e);
- Identification of potential cleanup action alternatives;
- Evaluation of each remedial alternatives according to the requirements of WAC 173-340-350 through WAC 173-340-370. The FS shall include as appropriate a disproportionate cost analysis using the criteria described in WAC 173-340-360.
- Identification of the remedial alternative judged to best satisfy the evaluation criteria.

Barbee Mill shall complete the FS Report as follows:

1. Submittal of an FS Outline for Ecology review and comment within 120 days from the effective date of the Second Amendment. The FS Outline will include a description of the following:

- a. Preliminary remedial action objectives;
- b. Technologies previously considered for implementation at the Site; and
- c. Interim actions implemented at the Site.

2. Submittal of a draft FS Report for Ecology review and comment within ninety (90) days from receipt of Ecology's comments on the draft RI Report or within ninety (90) days from receipt of Ecology's comments on the FS Outline (whichever is latest). The draft FS Report will incorporate Ecology's comments on the FS Outline and provide the additional information to complete the FS in accordance with the requirements of Chapter 173-340 WAC as described above.

3. Submittal of a final FS Report within thirty (30) days of receipt of Ecology's comments on the draft FS Report. The final FS Report will incorporate Ecology's comments on the draft FS Report.

4. The FS Outline, draft FS Report, and final FS Report shall be completed according to the schedule in Exhibit G (Additional Schedule of Deliverables).

I. Preparation of draft Cleanup Action Plan

Within ninety (90) days after Ecology approval of the final RI Report and final FS Report, Barbee Mill shall complete a draft cleanup action plan (DCAP) for Ecology review for the proposed Site cleanup that meets the requirements of 173-340-380 WAC, and addresses the requirements for developing a cleanup action in WAC 173-340-350 through 173-340-390, including Ecology's expectations for cleanup alternatives in WAC 173-340-370. The DCAP shall include a general description of the proposed cleanup action, cleanup standards from the RI/FS Reports and a rationale regarding their selection, a proposed schedule for implementation, description of any institutional controls proposed, and a summary of federal, state and local laws that are applicable to the proposed cleanup action. The DCAP will be available for public

comment in conjunction with the public comment period for the final RI Report and final FS Report. Preparation of a final CAP is not a part of this Second Amendment.

**Financial Assurances, Section VIII.Q. of the First Amendment is Amended:**

The First Amendment, Section VIII.Q.2. (Financial Assurances) is hereby amended as follows:

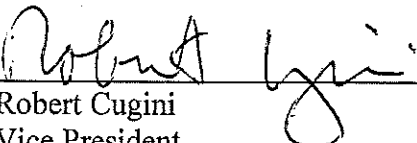
"thirty (30) days" is replaced with "ninety (90) days"

The First Amendment, Section VIII.Q (Financial Assurances) is hereby amended to add the following requirement:

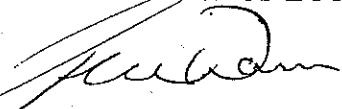
Ecology agrees that Barbee Mill need not provide financial assurances to cover the RI/FS work described in Section VII.G. and H. (Work to be Performed) in this Second Amendment.

Effective date: JANUARY 17, 2012

BARBEE MILL CO., INC.

  
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STATE OF WASHINGTON,  
DEPARTMENT OF ECOLOGY

  
Robert Warren  
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**Exhibit F - Performance and Compliance Monitoring Schedule**  
Barbee Mill Site

Well	Monitoring Year <sup>(1)</sup>									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>PAZ Compliance Wells</b>										
CMW-1	Q - As, Fe	B - As, Fe	B - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe
CMW-2S	Q - As, Fe	B - As, Fe	B - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe
CMW-2D	Q - As, Fe	B - As, Fe	B - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe
CMW-3	Q - As, Fe	B - As, Fe	B - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe
CMW-4S	Q - As, Fe	B - As, Fe	B - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe
CMW-4D	Q - As, Fe	B - As, Fe	B - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe
CMW-5	Q - As, Fe	B - As, Fe	B - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe
CMW-6	Q - As, Fe	B - As, Fe	B - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe
<b>Wells and Well Points on Quendall Terminals</b>										
BH-29A	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe
WP-1A	Q - As, Fe	B - As, Fe	B - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe
WP-8	Q - As, Fe	B - As, Fe	B - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe	A - As, Fe
<b>Groundwater Extraction Wells and Piezometers</b>										
EW-1	Q - As, Fe	B - As, Fe <sup>(2)</sup>	B - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>
EW-2	Q - As, Fe	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
EW-3	Q - As, Fe	B - As, Fe <sup>(2)</sup>	B - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>
EW-4	Q - As, Fe	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
EW-5	Q - As, Fe	B - As, Fe <sup>(2)</sup>	B - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>
EW-6	Q - As, Fe	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
EW-7	Q - As, Fe	B - As, Fe <sup>(2)</sup>	B - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>
EW-8	Q - As, Fe	B - As, Fe <sup>(2)</sup>	B - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>	A - As, Fe <sup>(2)</sup>
PZ-1	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
PZ-2	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)

**Notes:**

- (1) Monitoring begins in September of Indicated year.  
 (2) Assumes pump-and-treat operation ends in August 2011 and is not restarted.  
 (3) Piezometers will be monitored for water levels only in conjunction with site monitoring events.  
 (4) When the pump-and-treat system is not operating, a subset of extraction wells will be monitored to evaluate concentrations upgradient of the PAZ.

- Q Quarterly (every 3 months)  
 B Biannual (every 6 months)  
 A Annual  
 — No monitoring planned

Quarterly monitoring to be conducted in June, September, December, and March  
 Biannual and annual monitoring event seasons will be based on quarterly monitoring results  
 Field parameters (temperature, conductivity, pH, dissolved oxygen, ORP) and water levels collected during each monitoring event  
 The monitoring program will be reevaluated after 10 years

As Arsenic  
 Fe Iron

**EXHIBIT G**  
Additional Schedule of Deliverables

Action Items and Deliverables	Due Dates in Calendar Days
Submit to Ecology a final Interim Action Design and Implementation Report	30 days from receipt of Ecology comments on the draft Interim Action Design and Implementation Report
Submit to Ecology a final Barbee Sediment Data Gaps Analysis Report	30 days from receipt of Ecology comments on the draft Barbee Sediment Data Gaps Analysis Report
Submit to Ecology a Preliminary RI Report.	120 days from the effective date of the Second Amendment
Submit to Ecology a draft RI Report.	90 days from receipt of all final analytical data from the laboratory for the June 2012 groundwater monitoring event, or 90 days from receipt of Ecology comments on Preliminary RI Report, whichever is later
Submit to Ecology a final RI Report	30 days from receipt of Ecology comments on the draft RI Report
Submit to Ecology a FS Outline	120 days from the effective date of the Second Amendment
Submit to Ecology a draft FS Report	90 days from receipt of Ecology comments on the draft RI Report, or 90 days from receipt of Ecology's comments on the FS Outline, whichever is later
Submit to Ecology a final FS Report	30 days from receipt of Ecology comments on the draft FS Report
Submit to Ecology a draft CAP	90 days from Ecology's approval of the final RI report and final FS report
Performance Monitoring Reports	Annually, by July 31