**STATE OF WASHINGTON**

**DEPARTMENT OF ECOLOGY**

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| In the Matter of Remedial Action by: **Art Brass Plating, Inc.****Blaser Die Casting Co.****Capital Industries, Inc.** **Burlington Environmental, LLC** | FIRST AMENDMENT TO AGREED ORDERNo. DE 10402 [Docket # DE 15344] |

TO: Mr. Mike Merryfield

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# INTRODUCTION

Agreed Order No. DE 10402 (2014 Agreed Order) entered into by the State of Washington, Department of Ecology (Ecology) and Art Brass Plating, Inc., Blaser Die Casting Co., Capital Industries, Inc., and Burlington Environmental, LLC (doing business as “Stericycle”), (the “West of 4th PLP Group”) in 2014 requires remedial action at a site where there has been a release or threatened release of hazardous substances. This First Amendment to the 2014 Agreed Order requires the “West of 4th PLP Group” to conduct pilot studies in areas of groundwater contamination prior to selecting a preferred cleanup action. This amendment also includes an interim action at the Capital Industries Plant 4 building. It establishes a new Feasibility Study (FS) schedule for performing the pilot studies and interim action, and submitting FS and draft Cleanup Action Plan documents.

1. **JURISDICTION**

This First Amendment to the 2014 Agreed Order is issued by Ecology pursuant to the Model Toxics Control Act (MTCA), RCW 70.105D.050(1).

# AMENDMENT

This amendment does not recite all provisions of the 2014 Agreed Order. All sections of the 2014 Order not specifically amended herein shall remain in full force and effect and unchanged. This amendment results in substantial changes to the work to be performed and has been the subject of public notice and comment under WAC 173-340-600.

Section VII. C. of the 2014 Agreed Order refers to the performance of “other actions” identified in the Order’s attached Scope of Work (Exhibit B). This amendment specifies a number of such actions that will be conducted prior to development of a site Cleanup Action Plan. These actions are described below. The amendment also includes performance due dates for the actions, set forth in changes to Exhibit C.

Agreed Order No. DE 10402 is hereby amended to incorporate the following Scope of Work and Schedule changes, which are an integral and enforceable part of that Order:

**Amendment to Exhibit B, Scope of Work.**

1. Add to Task I:

**Task I.3**: FS Pilot Studies

The PLPs shall perform two FS Pilot Studies consistent with those studies’ respective approved FS Pilot Study Work Plans and Field Implementation Work Plans. Completion Reports for the two studies shall document the respective activities, and include all data collected during the studies as well as summaries of key findings.

Required pilot study deliverables and actions include:

* 1. Final Site Unit 1 Pilot Study Work Plans.
		1. a Revised Draft Site Unit 1 CVOC Pilot Study Work Plan was submitted on June 14, 2017, prior to the effective date of this Agreed Order Amendment. Following finalization of the Amendment, Ecology shall either approve the Revised Draft Work Plan as final, or disapprove it with comments and request revision; and
		2. a Draft Site Unit 1 In Situ Metals Immobilization Pilot Study Work Plan was submitted on April 17, 2017, prior to the effective date of this Agreed Order Amendment. Following finalization of the Amendment, Ecology shall either approve the Draft Work Plan as final, or disapprove it with comments and request revision.

The PLPs shall proceed to conduct the two pilot studies consistent with approved proposals established in the Final Site Unit 1 Pilot Study Work Plans.

* 1. Site Unit 1 Pilot Study Field Implementation Work Plans. Draft and, if necessary, revised Field Implementation Work Plans shall be prepared and submitted for each of the two pilot studies. Field Implementation Work Plans shall contain project information and proposals as established in each study’s preceding Final Site Unit 1 Pilot Study Work Plan.

The PLPs shall proceed to conduct the two pilot studies consistent with approved proposals established in the Final Site 1 Unit Pilot Study Field Implementation Work Plans.

* 1. As data are collected and interim findings reached during each of the two pilot studies, this information shall be included in Progress Reports (in accordance with Section IV of the Agreed Order’s Exhibit B).
	2. Site Unit 1 Pilot Study Completion Reports. A Pilot Study Completion Report shall be prepared and submitted for each of the two pilot studies. Completion Reports shall contain project information as established in each study’s preceding Final Field Investigation Work Plan.

The PLPs shall submit FS pilot study work plans, as identified in “a” and “b” above, to the Ecology project coordinator in accordance with the due dates established in amended Exhibit C. Ecology shall review each: (1) Site Unit 1 Pilot Study Work Plan, and (2) Site Unit 1 Pilot Study Field Implementation Work Plan, and approve the documents as Final, approve them as Final with modifications, or disapprove them with comments. If a document is disapproved, the PLPs shall submit a revised version to the Ecology project coordinator in accordance with the due date established in Exhibit C. Revised documents must satisfactorily address Ecology’s comments. Ecology will then approve the revision as Final, approve it as Final with modifications, or disapprove it with comments.

The PLPs shall submit two Site Unit 1 FS pilot study Completion Reports to the Ecology project coordinator in accordance with the due dates established in amended Exhibit C. Ecology shall review each Report and provide comments to the PLPs.

**Task I.4**: Interim Action at the Capital Industries Plant 4 Building

The PLPs shall perform an interim action at the Capital Industries Plant 4 Building in Site Unit 2, consistent with the approved Interim Action Work Plan and Field Implementation Work Plan. A Completion Report for this interim action shall document the respective activities, include all data collected during the interim action, and summarize key findings and interim action results.

Required interim action deliverables and actions include:

* 1. a Site Unit 2 Interim Action Work Plan. A Draft Site Unit 2 Interim Action Work Plan was submitted on July 27, 2017, prior to the effective date of this Agreed Order Amendment. Following finalization of the Amendment, Ecology shall either approve the Draft Work Plan as final, or disapprove it with comments and request revision. The approved Interim Action Work Plan will provide sufficient detail to describe the action’s Remedial Design conceptually, and include a project schedule.

The PLPs shall proceed to conduct the interim action consistent with

proposals established in the approved Interim Action Work Plan.

* 1. a Site Unit 2 Interim Action Field Implementation Work Plan. A draft and, if necessary, revised Field Implementation Work Plan shall be prepared and submitted for the interim action. The Field Implementation Work Plan shall contain detailed project information and proposals as established in the preceding Final Interim Action Work Plan. The Field Implementation Work Plan will also include a Health and Safety Plan, Sampling and Analysis Plan, and Quality Assurance Assessment Plan as attachments.

The PLPs shall proceed to implement the interim action consistent with proposals

established in the approved Interim Action Field Implementation Work Plan.

* 1. As data are collected and preliminary findings reached during the interim action, this information shall be included in Progress Reports (in accordance with Section IV of the Agreed Order’s Exhibit B).
	2. Site Unit 2 Interim Action Completion Report. A draft Interim Action Completion Report and, if necessary, revised Interim Action Completion Report, shall be prepared and submitted for the interim action. The Completion Report shall contain project information as established in the preceding Final Field Investigation Work Plan.

The PLPs shall submit the interim action work plans and Completion Report, as identified in “a”, “b”, and “d” above, to the Ecology project coordinator in accordance with the due dates established in amended Exhibit C. Ecology shall review each Site Unit 2 Interim Action Work Plan, Field Implementation Work Plan, and Completion Report and approve the documents as Final, approve them as Final with modifications, or disapprove them with comments. If a document is disapproved, the PLPs shall submit a revised version to the Ecology project coordinator in accordance with the due date established in Exhibit C. Revised documents must satisfactorily address Ecology’s comments. Ecology will then approve the revision as Final, approve it as Final with modifications, or disapprove it with comments.

**Task I.5**: Focused FS Report Addendum

The PLPs submitted revised FS Reports for Site Unit 1 and Site Unit 2 on August 12, 2016. On October 26, 2016, Ecology responded to those Reports. Ecology did not request revision of either Report, but disagreed with certain elements of the PLPs’ preferred remedial alternatives for both Site Units. As a consequence, Ecology and the PLPs agreed to perform pilot studies and an interim action prior to selecting a site cleanup action.

The PLPs shall prepare and submit a Site Unit 1 and Site Unit 2 Focused FS Report Addendum. Each Addendum shall evaluate potential cleanup action alternatives for the Site under applicable criteria and select a preferred, cost-effective action (or set of actions). The FS Report Addenda are not intended as FS Report revisions. Instead, they will be “focused” on a narrow set of remedial technologies and cleanup alternatives. For these select remedial technologies and cleanup alternatives, each Addendum will comply with applicable requirements in WAC 173-340-350(8)(c), and include the following information:

1. a conceptual site model. The site conceptual model may be based on the model described in the revised FS Reports, but updated to include new site information obtained since August 2016 and any new or modified critical assumptions used to evaluate potential cleanup action alternatives;
2. identification and description of the preliminary media cleanup levels used to evaluate potential cleanup action alternatives;
3. if applicable, a description and discussion of the standard and any conditional Point(s) of Compliance for soil, surface water, sediments, indoor air, and/or groundwater, newly proposed for the site;
4. a presentation of all site data collected since August 2016. This shall include a summary discussion of all pilot and/or treatability studies, the SU2 interim action, and the outcomes of those studies/actions. References may be made to the Completion Reports described in Tasks I.3.d and I.4.d.;
5. an updated identification of the contaminants – per medium, pathway, and receptor – that exceed one or more of their respective pathway-specific preliminary cleanup levels;
6. if applicable, identification of any remediation levels referred to in that Addendum, per contaminant, pathway, and media. If remediation levels were utilized in any alternative evaluated, that Addendum shall discuss why such levels were used, how they would be used during Site cleanup, and how the PLPs derived the levels;
7. updated, as needed, pathway- and media-specific figures identifying Site areas and media where unacceptable levels of contamination are, or may be, currently present.  The figures will show where this contamination is presently located and will include measurements or estimates of current concentrations or concentration/cleanup-level ratios. All plan-view groundwater figures will depict lateral (horizontal) gradient contours; for zones and areas where gradients significantly change, either seasonally or because of river stage, multiple figures will be included, depicting the changes;
8. a description of the cleanup action alternatives evaluated in the Addendum. Alternatives for each Site Unit will be included that incorporate the standard point of compliance for each environmental medium containing contaminants of concern unless such alternatives have been eliminated in accordance with WAC 173-340-350(8)(b).

As noted above, the FS Report Addenda are not intended as FS Report revisions. Instead, they will be focused on a narrow set of remedial technologies and cleanup alternatives. Alternatives to be evaluated in the FS Addendum will be identified before preparation of the Reports in, or subsequent to the submittal of, the Site Unit Completion Reports described in Tasks I.3.d and I.4.d. Alternatives evaluated in the Addendum are expected to include, at a minimum:

1. the preferred alternatives for Site Units 1 and 2 described in the PLPs’ August 2016 revised FS Reports;
2. Ecology’s preferred alternatives for Site Units 1 and 2, communicated by letter on October 25, 2016; and,
3. other alternatives which are variants of the PLPs’ or Ecology’s preferred alternatives.

The description of cleanup action alternatives will discuss how each alternative protects human health and the environment (including, as appropriate, ecological receptors) by eliminating, reducing, or otherwise controlling risks posed through each exposure pathway and migration route. It will identify: (1) applicable local, state, and federal laws and regulations (ARARs) that the cleanup alternatives are either known to be subject to, or would likely need to be considered by the PLPs and Ecology during remedial design and implementation of the alternatives; and (2) respective restoration timeframes;

1. an evaluation of each alternative in accordance with the requirements and criteria specified in WAC [173-340-360](http://apps.leg.wa.gov/WAC/default.aspx?cite=173-340-360). Each Addendum shall identify the most practicable permanent cleanup action alternative for that Site Unit and describe how the preferred cleanup action for that Site Unit is permanent to the maximum extent practicable;
2. an evaluation of any residual threats to human health or the environment that would accompany each alternative evaluated in the Addendum (were that action implemented) and a general description of any institutional controls included as part of those alternatives. The description shall additionally explain how inclusion of these controls in the alternative meets applicable requirements in WAC 173-340-360(2)(e);
3. identification and description of preferred cleanup actions for Site Units 1 and 2. These preferred Site remedies shall be shown to outperform other remedial alternatives evaluated in the FS Addenda when judged against the evaluation and other applicable criteria set-out in WAC 173-340-350(8), -360, and -370. The description of each preferred action shall include an estimate of Net Present Value costs to complete all future remediation, including design, implementation, monitoring, and closure. It shall also include the restoration timeframe associated with the action;
4. an analysis of uncertainty. The FS Report Addenda shall discuss sources of uncertainty and the possible consequences of this uncertainty on: a) the comparison of cleanup alternatives conducted in the Addendum; and b) the PLPs’ selection of a preferred cleanup action; and,
5. a proposed due date for submitting the Site’s draft Cleanup Action Plan (Task II.1) to Ecology, as well as milestone dates for activities occurring after approval of the Focused FS Report Addenda and before the submittal of the draft CAP.

The PLPs shall submit Focused FS Report Addenda for Site Units 1 and 2 to the Ecology project coordinator in accordance with the due date established in amended Exhibit C. Ecology shall review each Addendum, and approve the documents as Final, approve them conditionally as Final, or disapprove them with comments. One possible form of conditional approval could be an Ecology letter that: (1) requests no further revision of the document, but (2) describes a preferred alternative favored by Ecology that is different than Addendum’s description of the PLPs’ preferred alternative.

If an Addendum is disapproved, the PLPs shall submit a revised version to the Ecology project coordinator in accordance with the due date established in Exhibit C. Revised documents must satisfactorily address Ecology’s comments. Ecology will then approve the revision as Final, approve it as Final with modifications, or disapprove it with comments.

1. Modify the first two Task II.1 paragraphs to:

In accordance with the schedule established in the approved Focused FS Report Addenda, the PLPs shall submit a draft Cleanup Action Plan (CAP). The draft CAP shall be consistent with Ecology’s preferred remedial alternatives for the site and shall comply with requirements in WAC 173-340-380(1). It shall contain, at a minimum:

1. a general description of the proposed cleanup actions for Site Units 1 and 2. If, as expected, the FS includes multiple Site Units, each preferred cleanup action per Unit shall be described. In describing the preferred cleanup action for the site, the CAP shall explain how individual preferred actions are incorporated into the preferred action for the site;

**Amendment to Exhibit C, Schedule of Deliverables.**

1. Modify the Schedule of Deliverables as follows:
	1. New SOW Tasks and Due Dates

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| --- | --- | --- |
| **SOW Task** | **SOW Deliverable** | **Due Date** |
| I.3.a.i | Revised Site Unit 1 CVOC Pilot Study Work Plan (if required) | 30 days after receipt of formal Ecology comments on the Draft Work Plan |
| I.3.a.ii | Revised Site Unit 1 In Situ Metals Immobilization Pilot Study Work Plan (if required) | 30 days after receipt of formal Ecology comments on the Draft Work Plan |
| I.4.a | Revised Site Unit 2 Interim Action Work Plan (if required) | 30 days after receipt of formal Ecology comments on the Draft Work Plan  |
| I.3.b | Draft Site Unit 1 CVOC Pilot Study Field Implementation Work Plan | Per the due date established in the approved Site Unit 1 CVOC Pilot Study Work Plan |
| I.3.b | Draft Site Unit 1 In Situ Metals Immobilization Pilot Study Field Implementation Work Plan | Per the due date established in the approved Site Unit 1 In Situ Metals Immobilization Pilot Study Work Plan |
| I.4.b | Draft Site Unit 2 Interim Action Field Implementation Work Plan | Per the due date established in the approved Site Unit 2 Interim Action Work Plan |
| I.3.b | Revised Site Unit 1 CVOC Pilot Study Field Implementation Work Plan (if required) | 30 days after receipt of Ecology comments on the Draft Field Implementation Work Plan |
| I.3.b | Revised Site Unit 1 In Situ Metals Immobilization Pilot Study Field Implementation Work Plan (if required) | 30 days after receipt of Ecology comments on the Draft Field Implementation Work Plan |
| I.4.b | Revised Site Unit 2 Interim Action Field Implementation Work Plan (if required) | 30 days after receipt of Ecology comments on the Draft Field Implementation Work Plan |
| I.3.d | Site Unit 1 CVOC Pilot Study Completion Report | Per the due date established in the approved Site Unit 1 CVOC Pilot Study Field Implementation Work Plan |
| I.3.d | Site Unit 1 In Situ Metals Immobilization Pilot Study Completion Report | Per the due date established in the approved Site Unit 1 In Situ Metals Immobilization Pilot Study Field Implementation Work Plan |
| I.4.d | Draft Site Unit 2 Interim Action Completion Report | Per the due date established in the approved Site Unit 2 Interim Action Field Implementation Work Plan |
| I.4.d | Revised Site Unit 2 Interim Action Completion Report (if required) | 30 days after receipt of Ecology comments on the Draft Interim Action Completion Report |
| I.5 | Draft Site Unit 1 Focused FS Report Addendum | 60 days after receipt of Ecology comments on the Draft Site Unit 1 Completion Reports |
| I.5 | Draft Site Unit 2 Focused FS Report Addendum | 60 days after receipt of Ecology comments on the Draft Interim Action Completion Report |
| I.5 | Revised Site Unit 1 Focused FS Report Addendum (if required) | 45 days after receipt of Ecology comments on the Draft Site Unit 1 Focused FS Report Addendum |
| I.5 | Revised Site Unit 2 Focused FS Report Addendum (if required) | 45 days after receipt of Ecology comments on the Draft Site Unit 2 Focused FS Report Addendum |

* 1. Revised SOW Task Due Dates

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| --- | --- | --- |
| **SOW Task** | **SOW Deliverable** | **Due Date** |
| II.1 | Draft Cleanup Action Plan (CAP) | Per the due date established in the approved Site Unit 1 and 2 Focused FS Report Addenda |

# d. SIGNATURE AUTHORITY

 The undersigned representatives of the PLPs and Ecology hereby certify that they are fully authorized to enter into this amendment and to execute and legally bind the PLPs to the same.

# e. EFFECTIVE DATE

 This First Amendment shall be effective upon execution by the PLPs and Ecology.

Effective date of this First Amendment: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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