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STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

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2	DEPARTMENT OF ECOLOGY			
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5	In the Matter of Remedial Action by:)			
6	-	of Washington) AGREED ORDER		
7	Tacoma Br	ranch Campus) No. DE 97HW-S238		
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10	TO: Un	niversity of Washington		
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1	I. JURISDICTION		
2	This Agreed Order (Order) is issued pursuant to the authority of Revised Code of Washington		
3	(RCW) 70.105D.050(l).		
4	II. <u>DEFINITIONS</u>		
5	Unless otherwise specified, the definitions set forth in Chapter 70.105D RCW and Chapter 173-		
6	340 Washington Administrative Code (WAC) shall control the meanings of the terms used in this Order		
7	Additional definitions are as follows:		
8	1. <u>Agreed Order</u> or <u>Order</u> means this Order issued under WAC 173-340-530. The term		
9	includes the text of this Order, all Attachments to this Order, and all Department of Ecology- (Ecology)		
10	approved submittals required pursuant to this Order. Order Attachments and Ecology-approved		
11	submittals are incorporated into this Order by this reference and are enforceable parts of this Order as if		
12	fully set forth herein.		
13	2. <u>Area of Concern</u> (AOC) means any area of the facility, other than Solid Waste		
14	Management Units (SWMUs), where a release of hazardous substances (including dangerous waste and		
15	dangerous constituents) has occurred, is occurring, is suspected to have occurred, or threatens to occur.		
16	3. <u>Cleanup Action Plan</u> (CAP) means the document issued by Ecology under WAC 173-		
17	340-360 which selects facility specific corrective measures and specifies cleanup standards (cleanup		
18	levels, points of compliance and other requirements for the corrective measures).		
19	4. <u>Cleanup Standards</u> means the standards promulgated under RCW 70.105D.030(2)(d) and		
20	include (1) hazardous substance concentrations (cleanup levels) that protect human health and the		
21	environment; (2) the location at the facility where those cleanup levels must be attained (points of		
22	compliance); and (3) additional regulatory requirements that apply to a cleanup because of the type of		
23	action and/or the location of the facility.		

5. Corrective Action means any activities including investigations, studies, 1 2 characterizations and corrective measures, including actions taken pursuant to Chapter 70.105D RCW and Chapter 173-340 WAC, undertaken in whole or in part to fulfill the requirements of WAC 173-303-3 4 646. 5 6. Corrective Measure means any measure or action to control, prevent, or mitigate releases and/or potential releases of hazardous substances (including dangerous waste and dangerous 6 constituents) reviewed and approved by Ecology for the facility and set forth in a facility specific 7 Cleanup Action Plan (CAP) prepared in compliance with the requirements of Chapter 173-340 WAC, 8 including WAC 173-340-360. Corrective measures may include interim actions as defined by Chapter 9 173-340 WAC. Interim actions will not necessarily be set forth in a facility specific CAP. 10 7. Dangerous Constituent means any constituent identified in WAC 173-303-9905 or 40 11 12 CFR Part 264 Appendix IX, any constituent which caused a waste to be listed or designated as dangerous under the provisions of Chapter 173-303 WAC, and any constituent defined as a hazardous substance at 13 RCW 70.105D.020(7). 14 15 8. Dangerous Waste means any solid waste designated in WAC 173-303-070 through 173-303-100 as dangerous or extremely hazardous or mixed waste. Dangerous wastes are considered 16 17 hazardous substances under RCW 70.105D.020(7). 9. Dangerous Waste Constituent means any constituent listed in WAC 173-303-9905 and 18 any other constituent that has caused a waste to be a dangerous waste under Chapter 173-303 WAC. 19 Dangerous waste constituents are considered hazardous substances under RCW 70.105D.020(7). 20 10. Dangerous Waste Management Facility (DWMF) means the Cragle parcel, formerly 21

operated by Arrcom, Inc., and Ramcor Oil Company, and the properties owned by the University which

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are contiguous to the Cragle parcel. The boundaries of the DWMF are identified in Attachment 1 based
 on those properties owned by the University on the effective date of this agreed order.

11. <u>Facility</u> means the DWMF and all property, regardless of ownership, affected by releases
 or threatened releases of hazardous substances, including dangerous wastes and dangerous constituents,
 at and from the DWMF.

6 12. <u>Feasibility Study</u> (FS) means the investigation and evaluation of potential corrective 7 measures performed in accordance with the FS requirements of WAC 173-340-350 which includes the 8 requirements for a RCRA Corrective Measures Study, and undertaken in whole or in part to fulfill the 9 corrective action requirements of WAC 173-303-646.

10 13. <u>Permit or Permitting Requirement</u>, unless otherwise specified, means the requirements
 of Chapter 173-303 WAC for applying for, obtaining, maintaining, modifying, and terminating
 dangerous waste management facility permits.

13 14. <u>RCRA Facility Assessment</u> (RFA) means the Environmental Protection Agency (EPA)
 14 conducted investigation of releases and potential release at the dangerous waste management facility, and
 15 the information contained in the report entitled RCRA Facility Assessment Report, University of
 16 Washington Tacoma Branch (RFA Report). The RFA Report is incorporated into this Order by this
 17 reference as if fully set forth herein.

18 15. <u>Release</u> means the definition of release in RCW 70.105D.020(19), which includes any 19 intentional or unintentional spilling, leaking, pouring, emitting, emptying, discharging, injecting, 20 pumping, escaping, leaching, dumping, or disposing of hazardous substances, including dangerous waste 21 and dangerous constituents into the environment. It also includes the abandonment or discarding of 22 barrels, containers, and other receptacles containing hazardous substances, including dangerous waste 23 and dangerous constituents.

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1	16. <u>Remedial Investigation</u> (RI) means a Facility wide investigation and characterization		
2	performed in accordance with the requirements of Chapter 173-340 WAC, which includes the		
3	requirements for a RCRA facility investigation, undertaken in whole or in part to fulfill the corrective		
4	action requirements of WAC 173-303-646.		
5	17. <u>Solid Waste Management Unit</u> (SWMU) means any discernible location at the		
6	Dangerous Waste Management Facility where solid wastes have been placed at any time, irrespective of		
7	whether the location was intended for the management of solid or dangerous waste. Such locations		
8	include any area at the DWMF at which solid wastes, including spills, have been routinely and		
9	systematically released and include regulated units as defined by Chapter 173-303 WAC.		
10	III FINDINGS OF FACT		
11	Ecology makes the following Findings of Fact.		
12	1. In entering into this Order, the mutual objective of the University and Ecology is to		
13	provide remedial action at the Facility where there have been releases or threatened releases of hazardous		
14	substances, including dangerous wastes and dangerous constituents, causing contamination of soil and		
15	groundwater.		
16	2. The University has recently designated forty-six (46) acres in the Historic Warehouse		
17	District of Tacoma as the site for a branch campus. The boundaries of the site for the branch campus are		
18	shown in Attachment 1. There are eighty-nine (89) parcels of property within the site of which the		
19	University has so far acquired fifty-eight (58). The University is developing the new Campus in Tacoma		
20	as part of a statewide initiative to increase the accessibility of higher education to Washington citizens.		
21	3. The University has performed several environmental investigations at the Branch		
22	Campus site. Under these investigations, soil and groundwater samples were collected from several of		

the properties subject to this Order. These investigations have documented the presence of hazardous 1 2 substances that exceed MTCA Method A soil and groundwater cleanup standards. 4. 3 The University of Washington is and has been the owner of the Cragle parcel since it was purchased by the University in September 3, 1993. 4 5. The Cragle parcel was formerly operated as a dangerous waste management facility by 5 Arrcom, Inc., and Ramcor Oil Company on or after November 19, 1980, the date which subjects 6 7 facilities to RCRA permitting requirements, including interim status requirements pursuant to Section 3005 of RCRA and implementing regulations thereunder, and including authorized state regulations 8 promulgated in Chapter 173-303 WAC. 9 10 6. On December 15, 1981, Arrcom, Inc., notified EPA of its dangerous waste management activities. In the notification, Arrcom, Inc., identified itself as managing D001, F003, and F005 11 12 dangerous wastes at the Cragle parcel. 13 7. Pursuant to the notification, Arrcom, Inc., was issued identification number 14 WAD980664718 by EPA. 15 8. On December 15, 1981, Arrcom, Inc., submitted to EPA Part A of the RCRA permit application. In the Part A Application, Arrcom, Inc., identified itself as managing the following 16 quantities of dangerous wastes at the Cragle parcel: 500,000 pounds of D001 waste; 25,000 pounds of 17 F003 waste; and 5,000 pounds of F005 waste. Arrcom, Inc., ceased operations on December 30, 1981. 18 9. In 1996, EPA performed a RCRA Facility Assessment (RFA) at the dangerous waste 19 management facility. The purpose of an RFA is to identify those areas at the dangerous waste 20 management facility where releases of hazardous substances, as defined in RCW 70.105D.020(7) of this 21 22 Order, may have occurred or may be occurring.

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1	10.	Pursuant to the RFA Report and other information, Ecology has identified the SWMUs	
2	and AOCs at the DWMF which are listed in Attachment 2.		
3	11.	Releases and/or potential releases of hazardous substances including, but not limited to,	
4	volatile organ	ic compounds and total petroleum hydrocarbons from SWMUs and AOCs at the DWMF	
5	are documente	ed in the RFA Report.	
6	12.	Hazardous substances have been and may continue to be released from the DWMF into	
7	the environme	nt including groundwater beneath the DWMF and human work areas.	
8		IV. ECOLOGY DETERMINATIONS	
9	1.	The University of Washington is a person within the meaning of RCW 70.105D.020(13).	
10	2.	The University of Washington is the current owner of the Cragle parcel. Under	
11	previous ownership, the Cragle parcel, which held the RCRA units, should have operated under interim		
12	status subject	to Section 3005(e) of RCRA and regulations promulgated thereunder, including authorized	
13	state regulation	ns in Chapter 173-303 WAC.	
14	3.	Certain waste and constituents found at the DWMF are dangerous wastes and/or	
15	dangerous con	stituents as defined by Chapter 173-303 WAC, and shown in Section II of this Order.	
16	4.	These dangerous wastes and dangerous constituents are considered hazardous substances	
17	within the mea	ning of RCW 70.105D.020(7).	
18	5.	Based on the Findings of Fact and the administrative record, Ecology has determined	
19	that releases an	nd potential releases of hazardous substances at the DWMF present a threat to human	
20	health and the	environment.	
21	6.	By a letter dated September 4, 1996, Ecology notified the University of Washington of	
22	its status as a "	potentially liable person" under RCW 70.105D.040 after notice and opportunity for	
23	comment.		

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1.	7. Pursuant to RCW 70.105D.030(1) and RCW 70.105D.050, Ecology may require
2	potentially liable persons to investigate or conduct other remedial actions with respect to the release or
3	threatened release of hazardous substances, whenever it believes such action to be in the public interest.
4	8. The actions, including investigations, required by this Order are in the public interest.
5	V. WORK TO BE PERFORMED
6	Based on the foregoing Facts and Determinations, it is hereby ordered that the University of
7	Washington take the following remedial actions and that these actions be conducted in accordance with
8	Chapter 173-340 WAC and applicable provisions of Chapter 173-303 WAC, unless otherwise
9	specifically provided for herein.
10	1. The University of Washington shall conduct a remedial investigation and feasibility
11	study (RI/FS) in accordance with the requirements of WAC 173-340-350 to be approved by Ecology.
12	The RI/FS shall address both on-site and off-site soil and groundwater contamination which may have
13	come from releases of dangerous waste and dangerous constituents from all identified sources which lie
14	within the designated boundary of the DWMF, including the SWMUs and AOCs listed in Attachment 2.
15	The purpose of the RI/FS shall be to concurrently satisfy the portion of the RCRA corrective action
16	requirements that requires preparation of a RCRA Facility Investigation (RFI) and a Corrective Measures
17	Study (CMS).
18	2. The University shall prepare a draft RCRA closure plan for all RCRA regulated units on
19	the Cragle parcel. The closure plan shall be in accordance with Ecology's Dangerous Waste regulations,
20	WAC 173-303 and consistent with the Ecology publication, "Guidance for Clean Closure of Dangerous
21	Waste Facilities," Publication #94-111. The closure plan shall address only decontamination of the
22	structures and equipment associated with the regulated units on the Cragle parcel. The underlying soil
23	and groundwater contaminated by releases from these regulated units will be addressed separately in the

corrective action requirements contained in this Order. Following a thirty- (30) day public comment
 period and Ecology's written approval, the University of Washington shall complete implementation of
 the approved closure plan according to the schedule and conditions in the approved plan including any
 modifications contained in Ecology's approval letter.

5 3. Within thirty (30) calendar days from the effective date of this Order, the University of 6 Washington shall submit to Ecology for review and approval a draft Work Plan for conducting the RI/FS 7 and preparing a draft CAP. The Work Plan shall take into account and incorporate, where applicable, the 8 results of previous environmental investigations and shall include the following items:

a) Activities to characterize the hydrologic and hydraulic properties of the
unsaturated and saturated zones underlying the DWMF including the identification and determination of
the horizontal and vertical extent of the aquifer(s) underlying the DWMF. This characterization shall
include an assessment of the seasonal variation of groundwater levels and groundwater flow direction.

b) Activities to investigate and determine the nature and vertical and horizontal
extent of all known releases to the soil and groundwater from sources within the DWMF. This shall
include on-site and off-site migration and potential migration routes and exposure pathways of dangerous
wastes and/or dangerous constituents including any dense nonaqueous phase liquids and/or light
nonaqueous phase liquids. In particular, the extent of soil and groundwater contamination underlying the
19th and C Street right-of-ways and the extent of soil and groundwater contamination adjacent to and
underlying the former powerhouse building shall be investigated.

20 c) Soil sampling locations shall be identified. Sample depth(s), sampling
21 frequency, and analytical parameters shall be specified for each soil sample location.

d) Groundwater sampling locations shall be identified. This shall include locations
of previously constructed groundwater monitoring wells that will be utilized and locations of new

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1 groundwater monitoring wells to be installed. The Work Plan shall evaluate the status of previously 2 constructed groundwater monitoring wells being considered for use in the remedial investigation for their 3 suitability for the investigative activities defined in the Work Plan. This assessment will include an 4 evaluation of their location, screen depths, and physical condition. The location and screen intervals 5 shall be specified and justified for all proposed new monitoring wells as well as criteria that will be used 6 to determine the location of potential additional monitoring wells as the remedial investigation proceeds. 7 e) All existing and proposed monitoring wells to be used in the remedial 8 investigation shall be assigned a unique identifying number. The Work Plan shall specify the monitoring 9 frequency and the analytical parameters to be sampled for each monitoring well used in the remedial 10 investigation. f) The analytical method, detection limits, preservation method, and maximum 11 holding time for each parameter to be analyzed for shall be specified. The laboratory performing the 12 analyses shall be identified. Quality assurance/quality control procedures shall be specified according to 13 14 Ecology's publication "Guidelines and Specifications for Preparing Quality Assurance Project Plans," 15 Publication No. 91-16. 16 g) The format that will be used by the University to submit environmental sampling 17 data to Ecology. 18 h) Identification of alternative cleanup actions to be evaluated for feasibility that will protect human health and the environment by eliminating, reducing or otherwise controlling 19 potential risks resulting from identified migration routes and exposure pathways. Alternative cleanup 20 actions identified shall be consistent with the University of Washington's projected short- and long-term 21

23 performed independently by the University of Washington. Criteria to be used in evaluating the

utilization of the properties within the DWMF and take into account the previous remedial activities

alternative cleanup actions and selecting a recommended alternative should be specified in the Work
 Plan.

4. The Work Plan shall include a schedule for implementing all activities identified in the
Work Plan. The schedule shall be consistent with the construction schedule for those areas of the
Tacoma Branch Campus anticipated to be impacted by the investigation and remedial activities
addressed under this Order.

Once approved by Ecology, modifications to the schedule in the approved Work Plan must be
requested and justified in writing by the University and must be approved in writing by Ecology.

9 5. Within thirty (30) days of receiving Ecology's comments on the draft Work Plan, the
10 University shall submit two copies of a revised Work Plan to Ecology to address all Ecology comments.
11 Once approved or modified in writing by Ecology, the Work Plan and all other submittals are

12 incorporated by reference and become enforceable parts of this Order as if fully set forth herein.

13 Verbal field modifications to this Section of the Order including the approved Work Plan may be 14 made with the agreement of all parties provided that the modifications are confirmed in writing within 15 seven (7) days.

6. Within thirty (30) days of the effective date of this Order, the University of Washington
 shall prepare a site-specific Health and Safety Plan. The Health and Safety Plan shall be retained on site
 and made available to Ecology upon request.

Two (2) copies of the draft RI/FS report shall be submitted to Ecology for approval
 according to the schedule in the approved Work Plan. The RI/FS report shall address the items specified
 in this Order and in the approved Work Plan. Within thirty (30) days of receiving Ecology's comments
 on the draft RI/FS report, the University shall, if requested by Ecology, submit a revised RI/FS to

23 Ecology to address all Ecology comments.

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8. Within thirty (30) days of receipt of Ecology's written approval the final RI/FS, the 1 2 University of Washington shall prepare and submit to Ecology a draft CAP to satisfy the requirements of WAC 173-340-360 and to concurrently satisfy the corrective action requirements of WAC 173-303-646. 3 9. The University of Washington will assume State Environmental Policy Act (SEPA) lead 4 5 agency status for the SEPA review of the draft CAP. Concurrently with development of the draft CAP, 6 the University will prepare the SEPA checklist and SEPA threshold determination and submit these 7 documents to Ecology. 10. Following Ecology approval of the draft CAP and concurrence with the associated SEPA 8 documents, Ecology will submit the RI/FS, draft CAP, and associated SEPA documents for public 9 10 review and comment. 11. Following the thirty- (30) day public comment period and Ecology's written approval. 11 the University shall modify the draft CAP if necessary according to any conditions specified in 12 13 Ecology's approval letter. The University of Washington will then be required to design, construct, operate, and monitor the selected cleanup or corrective actions via an amendment to this Order or a new 14 order as determined by Ecology. 15 12. Should the RI/FS or construction-related activities identify the need for an interim 16 action, the University of Washington shall implement the interim action in accordance with WAC 173-17 18 340-430. Interim actions may include, but not be limited to, removal of newly identified leaking underground tanks and/or piping, excavation of soils containing contaminants above MTCA cleanup 19 20 levels, installation of monitoring well(s), and continued monitoring of existing groundwater monitoring 21 wells at the Facility.

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1 13. In accordance with WAC 173-340-840(5), environmental sampling data shall be 2 submitted in a format approved by Ecology. 3 14. The University of Washington shall notify Ecology's project coordinator in writing of any newly-identified SWMU(s), newly-discovered releases from known SWMU(s), and newly-4 discovered areas of concern within the DWMF no later than thirty (30) days after discovery and shall 5 investigate and report on these areas in accordance with the approved Work Plan. 6 7 By the fifteenth (15th) day of each month, the University of Washington shall submit a 15. 8 monthly progress report which will include the following information: Summary of the current status of investigative and/or remedial activities that 9 a) occurred during the past month and significant results. All submittals to Ecology during the past month 10 shall be identified. 11 Summary of investigative and/or remedial activities planned for the following 12 b) month including anticipated submittals. 13 A description of and justification for any significant deviations from the 14 c) approved Work Plan made during the previous month and any significant problems encountered during 15 the previous month and actions taken to correct them. 16 VI. TERMS AND CONDITIONS OF ORDER 17 18 1. Public Notices: WAC 173-340-600(10)(c) requires a thirty- (30) day public comment 19 period before this Order on a state RI/FS becomes effective. Ecology shall be responsible for providing 20 such public notice and reserves the right to modify or withdraw any provisions of this Order should public comment disclose facts or considerations which indicate to Ecology that the Order is inadequate 21 or improper in any respect. 22

1	2. <u>Remedial and Investigative Costs</u> : The University of Washington agrees to pay costs				
2 .	incurred by Ecology pursuant to this Order. These costs shall include work performed by Ecology or				
3	Ecology's contractors since July 1, 1996, for investigations, remedial actions, and Order preparation,				
4	negotiations, oversight, and administration. Ecology costs shall include costs of direct activities and				
, 5	support costs of direct activities as defined in WAC 173-340-550(2). The University of Washington				
6	agrees to pay the required amount within ninety (90) days of receiving from Ecology an itemized				
7	statement of c	osts that include	s a summary of costs incurred, an identification of involved staff, and the		
8	amount of time spent by involved staff members on the project. A general description of work				
9	9 performed will be provided upon request. Itemized statements will be prepared quarterly.				
10	3.	Designated Pr	oject Coordinators: The project coordinator for Ecology is:		
11		Name:	Leon J. Wilhelm, P.E.		
12 13 14 15		Address:	Department of Ecology Southwest Regional Office P.O. Box 47775 Olympia, Washington 98504-7775		
16		Telephone:	(360) 407-6362		
17		FAX:	(360) 407-6305		
18		E-mail:	leow461@ecy.wa.gov		
19	19 The project coordinator for the University of Washington is:				
20		Name:	David Ogrodnik, Senior Facilities Engineer		
21 22 23 24		Address:	Engineering Services Department Box 352210 University of Washington Seattle, WA 98195		
25		Telephone:	(206) 543-3535 Ext. 285		
26		FAX:	(206) 543-1277		

1 The project coordinator(s) shall be responsible for overseeing the implementation of this Order. 2 To the maximum extent possible, communications between Ecology and the University of Washington, 3 and all documents including reports, approvals, and other correspondence concerning the activities 4 performed pursuant to the terms and conditions of this Order, shall be directed through the project 5 coordinator(s). Should Ecology or the University of Washington change project coordinator(s), written 6 notification shall be provided to Ecology or the University at least ten (10) calendar days prior to the 7 change if possible.

8 4. Performance: All work performed by the University of Washington pursuant to this Order shall be under the direction and supervision, as necessary, of a professional engineer or 9 hydrogeologist, or similar expert, with appropriate training, experience, and expertise in hazardous waste 10 facility investigation and cleanup. The University of Washington shall notify Ecology as to the identity 11 of such engineer(s) or hydrogeologist(s), and of any contractors and subcontractors to be used in carrying 12 out the terms of this Order, in advance of their involvement at the facility. The University shall provide 13 14 a copy of this Order to all agents, contractors, and subcontractors retained to perform work required by this Order and shall ensure that all work undertaken by such agents, contractors, and subcontractors will 15 be in compliance with this Order. 16

Except where necessary to abate an emergency situation, the University shall not perform any remedial actions at the Facility other than those required by this Order unless Ecology concurs, either orally or in writing, prior to such additional remedial actions.

WAC 173-340-400(7)(b)(i) requires that "construction" performed on the facility <u>must</u> be under
 the supervision of a professional engineer registered in Washington.

The University of Washington shall provide seven (7) days notice to Ecology's project coordinator prior to conducting work activities that Ecology identifies on-site.

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consistent with the quality assurance and quality control procedures described in the Ecology publication
"Guidelines and Specifications for Preparing Quality Assurance Project Plans," Publication No. 91-16.
All monitoring wells constructed or abandoned under this Order shall comply with the applicable
requirements specified in Chapter 173-160 WAC.

6 5. Access: Ecology or any Ecology authorized representative shall have the authority to 7 enter and freely move about the facility at all reasonable times for the purposes of, among other things, 8 inspecting records, operation logs, construction, and contracts related to the work being performed 9 pursuant to this Order; reviewing the progress in carrying out the terms of this Order; conducting such tests or collecting samples as Ecology or the project coordinator may deem necessary; using a camera, 10 sound recording, or other documentary type equipment to record work done pursuant to this Order; and 11 verifying the data submitted to Ecology by the University. By signing this Order, the University of 12 Washington agrees that this Order constitutes reasonable notice of access and agrees to allow Ecology or 13 any Ecology authorized representative access to the facility at all reasonable times for purposes of 14 overseeing work performed under this Order. Ecology shall allow split or replicate samples to be taken 15 by the University of Washington during an inspection unless doing so interferes with Ecology's 16 sampling. The University of Washington shall allow split or replicate samples to be taken by Ecology 17 18 and shall provide seven (7) days notice before any sampling activity.

<u>Public Participation</u>: Ecology will prepare a public participation plan including a public
 notice and a fact sheet and will have the responsibility for public participation. The University will assist
 in coordinating and implementing public participation in cooperation with Ecology. This will include
 providing Ecology a sufficient number of copies of all environmental documents referenced in this Order
 as needed to facilitate the public comment periods described in this Order.

7. <u>Retention of Records</u>: The University of Washington shall preserve in a readily
 retrievable fashion, during the pendency of this Order and for ten (10) years from the date of issuance by
 Ecology of written notification that all requirements of this Order have been satisfactorily completed,
 reports, documents, and underlying data in its possession relevant to this Order. Should any portion of
 the work performed hereunder be undertaken through contractors or agents of the University, then the
 University agrees to include in its contract with such contractors or agents, a record retention
 requirement meeting the terms of this paragraph.

8 8. Dispute Resolution: The University of Washington may request Ecology to resolve 9 disputes which may arise during the implementation of this order. Ecology resolution of the dispute 10 shall be binding and final. The University of Washington is not relieved of any requirement of this 11 Order during the pendency of the dispute and remains responsible for timely compliance with the terms 12 of the Order unless otherwise provided by Ecology in writing. In the event a dispute arises as to an 13 approval, disapproval, proposed modification, or other decision or action by Ecology's project manager, 14 the parties shall utilize the dispute resolution procedure set forth below:

a) Upon receipt of the Ecology project manager's decision, the University has
 fourteen (14) days within which to notify Ecology's project manager of its objection to the decision.

b) The parties' project managers shall then confer in an effort to resolve the
dispute. If the project managers cannot resolve the dispute within fourteen (14) days of Ecology's
receipt of the written objection, Ecology's project manager shall issue a written decision.

20 c) The University may then request Ecology management review of the decision.
21 This request shall be submitted in writing to the Hazardous Waste and Toxics Reduction Program
22 Manager within fourteen (14) days of receipt of Ecology's project manager's decision.

d) Ecology's Program Manager shall conduct a review of the dispute and shall 1 issue a written decision regarding the dispute within thirty (30) days of the University's request for 2 3 review. The Program Manager's decision shall be binding and final. 9. Reservation of Rights/No Settlement: This Order is not a settlement under Chapter 4 70.105D RCW. Ecology's signature on this Order in no way constitutes a covenant not to sue or a 5 6 compromise of any Ecology rights or authority. Ecology will not, however, bring an action against the 7 University of Washington to recover remedial action costs paid to and received by Ecology under this 8 Order. In addition, Ecology will not take additional enforcement actions against the University to 9 require those remedial actions required by this Order, provided the University complies with this Order. Ecology reserves the right, however, to require additional remedial actions at the Facility should 10 it deem such actions necessary. 11 Ecology also reserves all rights regarding the injury to, destruction of, or loss of natural 12 resources resulting from the releases or threatened releases of hazardous substances from the DWMF. 13 In the event Ecology determines that conditions at the Facility are creating or have the potential 14 to create a threat to the health or welfare of the people on the Facility or in the surrounding area or to the 15 16 environment, Ecology may order the University of Washington to stop further implementation of this Order for such period of time as needed to abate the threat. 17 10. Transference of Property: Prior to any voluntary or involuntary conveyance or 18 relinquishment of title, easement, leasehold, or other interest in any portion of the Facility, the University 19 of Washington shall provide for continued implementation of all requirements of this Order and 20 implementation of any remedial actions found to be necessary as a result of this Order. 21 Prior to transfer of any legal or equitable interest, the University of Washington may have in the 22 23 Facility or any portions thereof, the University shall serve a copy of this Order upon any prospective

purchaser, lessee, transferee, assignee, or other successor in such interest. At least ninety (90) days prior
 to finalization of any transfer, the University of Washington shall notify Ecology of the contemplated
 transfer.

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11. <u>Compliance with Other Applicable Laws:</u>

a) All actions carried out by the University of Washington pursuant to this Order
shall be done in accordance with all applicable federal, state, and local requirements, including
requirements to obtain necessary permits, except as provided in paragraph b) of this section.

b) Pursuant to RCW 70.105D.090(1), the substantive requirements of chapters 8 70.94, 70.95, 70.105, 75.20, 90.48, and 90.58 RCW are incorporated by reference and the substantive 9 requirements of any laws requiring or authorizing local government permits or approvals for the 10 remedial action under this Order that are known to be applicable at the time of issuance of the Order 11 have been included in Attachment Number 3 and are binding and enforceable requirements of the Order. 12 The University of Washington has a continuing obligation to determine whether 13 additional permits or approvals addressed in RCW 70.105D.090(1) would otherwise be required for the 14 remedial action under this Order. In the event the University determines that additional permits or 15 approvals addressed in RCW 70.105D.090(1) would otherwise be required for the remedial action under 16 17 this Order, it shall promptly notify Ecology of this determination. Ecology shall determine whether 18 Ecology or the University of Washington shall be responsible to contact the appropriate state and/or local 19 agencies. If Ecology so requires, the University of Washington shall promptly consult with the

20 appropriate state and/or local agencies and provide Ecology with written documentation from those

agencies of the substantive requirements those agencies believe are applicable to the remedial action.

Ecology shall make the final determination on the additional substantive requirements that must be met by the University of Washington and on how the University must meet those requirements. Ecology

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1	shall inform the University of Washington in writing of these requirements. Once established by		
2	Ecology, the additional requirements shall be enforceable requirements of this Order. The University of		
3	Washington shall not begin or continue the remedial action potentially subject to the additional		
4	requirements until Ecology makes its final determination.		
5	Ecology shall ensure that notice and opportunity for comment is provided to the public		
6	and appropriate agencies prior to establishing the substantive requirements under this section.		
7	c) Pursuant to RCW 70.105D.090(2), in the event Ecology determines that the		
8	exemption from complying with the procedural requirements of the laws referenced in RCW		
9	70.105D.090(1) would result in the loss of approval from a federal agency which is necessary for the state		
10	to administer any federal law, the exemption shall not apply and the University of Washington shall		
11	comply with both the procedural and substantive requirements of the laws referenced in RCW		
12	70.105D.090(1), including any requirements to obtain permits.		
13	VII. <u>STIPULATED PENALTIES</u>		
14	1. For each day the University of Washington fails to comply with any time schedules		
15	contained within Section V of this Order, or any other time schedules approved or modified in writing by		
16	Ecology, the University stipulates and agrees that Ecology may, at its discretion, assess a stipulated		
17	penalty. The penalties to be assessed are \$1,000 for the first day and \$2,000 for each additional day of		
18	noncompliance. Should a penalty be assessed under this Part, the penalty shall accrue from the date on		
19	which the work was to have been performed, or the submittal was to have been made, and shall cease to		
20	accrue on the date when the University of Washington performs the required work or delivers the		
21	required submittal to Ecology. If imposed, all penalties will be payable within thirty (30) days of		
22	assessment to the Department of Ecology, Cashiering Section, P.O. Box 5128, Lacey, Washington		
23	98509-5128.		

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1	2. The University of Washington shall not be liable for payment under this Section if the			
2	University has submitted to Ecology a timely request for an extension of schedules under Section V of			
3	this Order, and if Ecology has not denied the request.			
4	3. Any penalty assessed pursuant to this section does not cover any environmental damag			
5	that may result from the University of Washington's failure to comply with a required time schedule, no			
6	does it impair Ecology's rights to issue another penalty for the environmental damages or for other			
7	actions not covered by this section.			
8	VIII. SATISFACTION OF THIS ORDER			
9	The provisions of this Order shall be deemed satisfied upon the University of Washington's			
10	receipt of written notification from Ecology that the University has completed the corrective actions			
11	required by this Order, as amended by any modifications, and that all other provisions of this Order have			
12	been complied with.			
13	IX. <u>ENFORCEMENT</u>			
14	1. Pursuant to RCW 70.105D.050, this Order may be enforced as follows:			
15	a) The Attorney General may bring an action to enforce this Order in a state or			
16	federal court.			
17	b) The Attorney General may seek to recover, by filing an action if necessary, the			
18	amounts spent by Ecology for investigative and remedial actions and orders related to the facility.			
19	c) In the event the University of Washington refuses, without sufficient cause, to			
20	comply with any term of this Order, the University will be liable for:			
21	(1) up to three times the amount of any costs incurred by the state of			
22	Washington as a result of its refusal to comply; and			

(2) civil penalties of up to \$25,000 per day for each day it refuses to

2	comply.

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d) This Order is not appealable to the Washington I	Pollution Control Hearings
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4 Board. This Order may be reviewed only as provided under RCW 70.105D.060.

Effective date of this Order _____October 1, 1997

UNIVERSITY OF WASHINGTON

9 10 BY 11 12 Weldon Ihrig 13 **Executive Vice President**

STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

BY X Dollar

K Seiler, Supervisor Hazardous Waste and Toxics **Reduction Section** Southwest Regional Office

18 19 CHRISTINE O. GREGOIRE ATTORNEY GENERAL 20 21 22 23 BY-24 THORTON WILSON 25

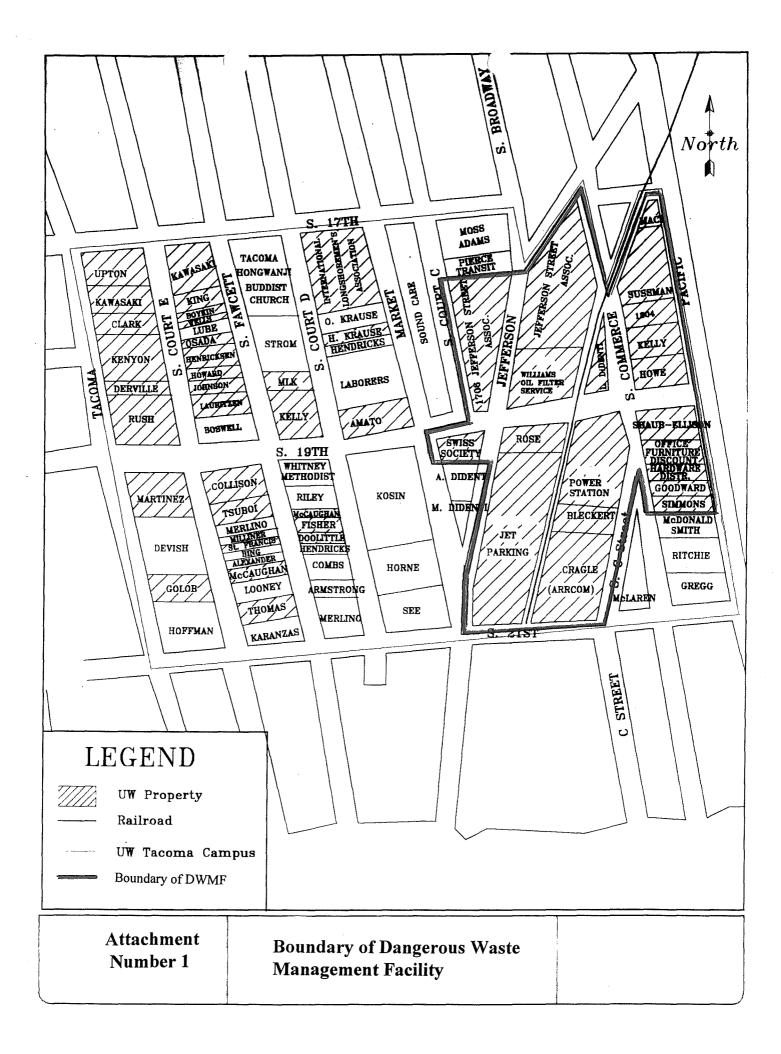
Assistant Attorney General for the 26 27

Approved as to Form Only:

University of Washington

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MAIA D. BELLON Assistant Attorney General for the Department of Ecology



Attachment Number 2

SWMU/AOC NUMBER	LOCATION (PARCEL)	DESCRIPTION	
SWMU 1	Cragle	19,500 gallon waste oil underground storage tank	
SWMU 2	Cragle	19,500 gallon waste oil underground storage tank	
SWMU 3	Cragle	15,500 gallon waste oil underground storage tank	
SWMU 4	Cragle	Storm sewer	
SWMU 5	Cragle	Waste storage area	
SWMU 6	Shaub-Ellison	Lube pits and floor drain	
SWMU 7	Shaub-Ellison	Retreading dust collection system and contaminated soil at loading dock	
SWMU 8	Power Station	Waste storage area	
SWMU 9	Bleckert	Sink	
SWMU 10	Jet Parking	Petroleum contaminated soil treatment area	
SWMU 11	Cragle	Petroleum contaminated soil treatment area	
SWMU 12	Williams Oil	Used batteries	
	Filter		
AOC 1	Cragle	Aboveground storage tanks	
AOC 2	Power Station	Heating oil underground storage tank	
AOC 3	Power Station	Gasoline underground storage tank	
AOC 4	Bleckert	500 Gal. heating oil underground storage tank	
AOC 5	Cragle	2,500 gallon diesel underground storage tank	
AOC 6	Cragle	2,500 gallon diesel underground storage tank	
AOC 7	Cragle	2,500 gallon gasoline underground storage tank	
AOC 8	Cragle	1,000 gallon underground storage tank	
AOC 9	Cragle	550 gallon underground storage tank	
AOC 10	Jet Parking	500 gallon underground storage tank	
AOC 11	Shaub-Ellison	1,000 gallon underground storage tank	
AOC 12	Shaub Ellison	8,000 gallon underground storage tank	
AOC 13	Shaub-Ellison	500 gallon underground storage tank	
AOC 14	Shaub-Ellison	500 gallon underground storage tank	
AOC 15	Power Station	950 gallon underground storage tank	
AOC 16	Williams Oil Filter	1,800 gallon heating oil underground storage tank	
AOC 17	1706 Jefferson Street	Potential underground storage tanks	
	Association		
AOC 19	Office		
100 17	Furniture Discount	575 gallon heating oil underground storage tank	
AOC 20	Howe	Cistern .	
AOC 23			
	Howe - Subsu	mace ripe	

SWMU's and AOCs Located Within the Dangerous Waste Management Facility

Attachment Number 3

Substantive Requirements of Local Government Permits or Approvals

Substantive requirements of local government approvals or permits that have been identified as pertinent to implementation of this agreed order and that shall be complied with are described below:

1. Tacoma-Pierce County Health Department, Underground Storage Tank Removal/Abandonment

- A site assessment to investigate for the presence of a release of a regulated substance must be performed by a person registered with the Department of Ecology to perform site assessments under WAC 173-360-610.
- The UST removal firm will be responsible for temporary storage of contaminated soil during excavation. This storage shall be on an impervious surface and proper measures shall be taken to ensure that contamination does not migrate (e.g. by covering the soil with plastic to prevent rainwater from washing petroleum out of the soil).
- The registered site assessor must be prepared to transport soil samples by keeping a cooler with ice on hand during the excavation.

2. City of Tacoma, Underground Storage Tank Removals, Ordinance 24101

- An authorized representative of the Tacoma-Pierce County Health Department shall be present during any or all of the tank and contamination removal process.
- Safe access shall be provided in accordance with Washington State Department of Labor and Industries Standards to all areas of the facility necessary for inspection of the tank's removal.
- Soil samples shall be taken and shall be analyzed for all constituents of the previously-stored hazardous materials and their transformation or breakdown products.
- If the authorized representative of the Tacoma-Pierce County Health Department finds the facility to be free of contaminants, the tank hole shall be backfilled with clean fill material.

Attachment No. 3 Page 2

3. City of Tacoma, Grading Excavation and Clearing, Ordinance 25825

Any excavation, filling or grading pertinent to implementation of this agreed order shall be performed according to the applicable substantive requirements in the City of Tacoma's Ordinance 25825 dated January 23, 1996. These requirements include the requirement that any grading, excavation, filling or clearing to take place between October 1st through March 31st shall be performed according to a plan which specifically addresses the winter rain season and associated erosion problems. This plan shall be prepared by a licensed Civil or Geotechnical Engineer and must be approved by the City of Tacoma Building Official.

4. City of Tacoma, Sewage Disposal, Tacoma Municipal Code, Chapter 12.08

Any discharge of groundwater or stormwater to any sanitary sewer pertinent to implementation of this agreed order must be performed in accordance with the substantive requirements in Chapter 12.08 of the City of Tacoma's Municipal Code revised February, 1995. These requirements include the requirement that any discharge of groundwater or stormwater through direct or indirect connection to any sanitary sewer must be approved by an authorized representative of the City of Tacoma's Public Works Department and shall be subject to all conditions issued with this approval.

5. Puget Sound Air Pollution Control Agency - Emission Standards

- Implementation of this agreed order shall be conducted such that toxic air contaminant emissions will not result in the exceedance of acceptable source impact levels listed in Appendix A of Regulation III.
- Implementation of this agreed order shall be performed so as to not allow the emission of any air contaminants in violation of the visual standard established by Section 9.03 of Regulation I.
- Implementation of this agreed order shall be performed so as to not allow the deposition or emission of particulate matter in violation of Section 9.04 or 9.09 of Regulation I.
- Implementation of this agreed order shall be conducted so as to not allow the emission of air contaminants in violation of Section 9.11 of Regulation I.

Attachment No. 3 Page 3

- Implementation of this agreed order shall be performed so as to not allow the emission of fugitive dust in violation of Section 9.15 of Regulation I.
- Equipment utilized on-site to implement this agreed order shall be maintained in a manner so as not to be in violation of Section 9.20(b) of Regulation I.

6. Puget Sound Air Pollution Control Agency - Asbestos Control Standards

Demolition of any structures containing asbestos pertinent to implementation of this agreed order shall be performed according to the applicable substantive requirements in Article 4 of Regulation III.

7. Local Health Department - Solid Waste Disposal

Any disposal of debris or soils at a landfill in the state of Washington pertinent to implementation of this agreed order must comply with local Health Department requirements according to criteria developed for the specific facility.