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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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May 12, 2016

16-NWP-083

Ms. Stacy L. Charboneau, Manager
Richland Operations Office
United States Department of Energy
PO Box 550, MSIN: A7-50
Richland, Washington 99352

Mr. John A. Ciucci, President and CEO
CH2M HILL Plateau Remediation Company
PO Box 1600, MSIN: H7-30
Richland, Washington 99352

Re: Completeness Determination for the Hanford Facility Dangerous Waste Part B Permit Application; Low-Level Burial Grounds Trenches 31-34-94, T Plant Complex, and Central Waste Complex – Waste Receiving and Processing Facility Operating Unit Groups, received January 28, 2016

References: See page 3

Dear Ms. Charboneau and Mr. Ciucci:

This letter documents the Department of Ecology’s (Ecology) completeness determination of the proposed permit application for the Low-Level Burial Grounds Trenches 31-34-94, T Plant Complex, and Central Waste Complex – Waste Receiving and Processing Facility Operating Unit Groups (Reference 1). These were submitted as required by the Agreed Order and Stipulated Penalty No. DE 10156 (Agreed Order) as a Class 3 permit modification request.

Ecology conducts the completeness determination as the first step in evaluating a Class 3 permit modification request. The purpose of this step is to ensure that all major components of the request have been addressed sufficiently to allow for a technical evaluation. If the permit modification request is found complete, a review for technical adequacy follows. If it is found to be incomplete, Ecology issues a Letter of Incompleteness.

Ecology has finished the completeness determination for the Class 3 permit modification request. This proposed modification, if approved, will add the Low-Level Burial Grounds Trenches 31-34-94, T Plant Complex, and Central Waste Complex – Waste Receiving and Processing Facility to Part III, Operating Units, in the *Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion, Revision 8C, for the Treatment, Storage, and Disposal of Dangerous Waste* (Site-wide Permit).

Ecology has determined that your certified permit application submitted on January 28, 2016, as a Class 3 permit modification request, is incomplete in accordance with Washington Administrative Code 173-303-840(1)(b). Ecology found areas in the permit application where information was either missing or lacked critical elements.

TS-2-4





Ms Stacy Charboneau and Mr. John Ciucci
May 12, 2016
Page 2

The items identified to date that make the application incomplete are provided in Attachments 1–3. Ecology is proceeding with the technical review to expedite the permitting schedule.

Below are some examples from the attachments that make the application incomplete. The permit application does not include or provide:

- Waste Analysis Plan: Dangerous waste acceptance requirements for each Dangerous Waste Management Unit (DWMU) for all three Operating Unit Groups (OUGs).
- Process Information: A description of each DWMU that includes the activities (generation, treatment, storage), where they occur, and the type of waste at each DWMU (all three OUGs).
- Process Information: How ignitable, reactive, and/or incompatible wastes will be evaluated for storage (all three OUGs).
- Inspection: Schedules and description of procedures for remedying problems identified during inspections (all three OUGs).
- Training: The written Dangerous Waste Training Plans are not provided. Information contained in the written Dangerous Waste Training Plans is required to be included in the *Personnel Training* addenda. As a result, it is not possible to determine if the information in the permit application is complete (all three OUGs).
- Groundwater: Groundwater engineering reports are not provided (Trenches 31-34 and 94).
- Security: How unauthorized personnel are kept out of areas that are unlocked during operating hours (all three OUGs).
- Closure: A final cover design must be complete and included in the closure plan (Trenches 31-34 and 94).

Because Ecology has determined that the proposed application submittal is incomplete, we will also provide a comprehensive list of information needed to complete the permit application. Ecology will meet with the United States Department of Energy, Richland Operations Office (USDOE-RL) and CHPRC to discuss results of the completeness review and the schedule to complete the permit application.

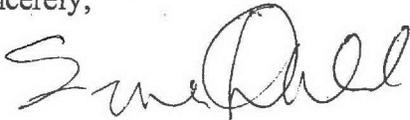
Ecology acknowledges that this Class 3 permit modification request did not include closure plans for 13 DWMUs listed as closing units in Exhibit B in the Agreed Order. USDOE-RL submitted the closure plans for these DWMUs on October 11, 2013 and October 18, 2013 (References 2 and 3, respectively). Ecology and USDOE-RL are working to complete these closure plans under a separate permit modification.

Ms Stacy Charboneau and Mr. John Ciucci
May 12, 2016
Page 3

16-NWP-083

If there are any questions, please contact Stuart Luttrell, Waste Management Permit Writer, at stuart.luttrell@ecy.wa.gov or (509) 372-7883, or Debra Alexander, Site-wide Revision 8c Dangerous Waste Permit Coordinator, at debra.alexander@ecy.wa.gov or (509) 372-7896.

Sincerely,



Suzanne Dahl
Dangerous Waste Permit Manager
Nuclear Waste Program

sl/jvs
Enclosures (3)

cc: See page 4

Reference 1: Letter 16-ESQ-0028, dated January 28, 2016, from S. L. Charboneau, USDOE-RL to J. A. Hedges, Ecology, "Submittal of DOE/RL-2015-74, Hanford Facility Dangerous Waste Part B Permit Application; Low-Level Burial Grounds Trenches 31-34-94, T Plant Complex, and Central Waste Complex – Waste Receiving and Processing Facility Operating Unit Groups"

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Reference 2: Letter 13-ESQ-0074, dated October 11, 2013, from M. McCormick, USDOE-RL to J. A. Hedges, Ecology, "Response to Consent Agreement and Final Order Concerning (CAFO) [sic] the Submittal of Closure Plans for Closing Dangerous Waste Management Units"

1221990

Reference 3: Letter 14-ESQ-0003, dated October 18, 2013, from M. McCormick, USDOE-RL to J. A. Hedges, Ecology, "Submittal of Additional Closure Plans for the Closing Dangerous Waste Management Units (DWMUs) at the T-Plant Complex"

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cc electronic w/encs:

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Dennis Faulk, USEPA
Cliff Clark, USDOE
Mike Cline, USDOE
Rob Hastings, USDOE
Doug Hildebrand, USDOE
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BNI Correspondence Control
CHPRC Correspondence Control
Environmental Portal
Gonzaga University Foley Center Library
Hanford Facility Operating Record
MSA Correspondence Control
PNNL Correspondence Control
Portland State University Library,
Government Information
University of Washington, Suzzallo Library,
Government Publications
USDOE-ORP Correspondence Control
USDOE Public Reading Room, CIC
USDOE-RL Correspondence Control
USEPA Region 10 Correspondence Control
USEPA Region 10 Hanford Field Office
Correspondence Control
WCH Correspondence Control
WRPS Correspondence Control
Administrative Record:
Hanford Site-wide Permit
NWP Central File
NWP Library

cc w/o encs:

NWP Reader File

Attachment 1. Trenches 31-34-94 permit application items that make the application incomplete. [The items that primarily result in the application being incomplete are underlined, and the other items contribute to the application being incomplete.]

Addendum	The Addendum fails to describe, provide, or identify the following	Regulatory Basis
Part A Form	<ul style="list-style-type: none"> ➤ The topographic map does not meet the requirements of 173-303-806. 	173-303-803(3), -806(4)(a)(xviii)
Addendum B, Waste Analyses	<ul style="list-style-type: none"> ➤ <u>Dangerous waste acceptance requirements for each DWMU.</u> <ul style="list-style-type: none"> ○ How wastes accepted at one SWOC unit are transferred to another SWOC unit. ○ Wastes that are prohibited at each unit ○ Processes for assessing that specific waste packages have been treated to meet LDR standards ➤ <u>Specific information required for a waste profile.</u> ➤ Discrepancy and rejections criteria and procedures. ➤ <u>The waste tracking mechanism used at the unit.</u> 	WAC 173-303-110; -140; -300; -350(3); -370; -395; -630(7), (9); -640(1), (2), (3), (10); -690; -691; -692; -806(4); [40 CFR Part 264 Subparts AA, BB, and CC]
Addendum C, Process Information	<ul style="list-style-type: none"> ➤ <u>A description of the treatment/storage pad DWMUs, including activities (generation, treatment, storage), where they occur, and the type of waste</u> ➤ The basis for volume of waste stored. A row must be no more than two drums wide. ➤ How and where waste is generated and tracked? ➤ The waste streams designated for treatment and specific types of treatment required for each waste stream. ➤ The specific types of treatment performed at DWMUs identified as treatment units. ➤ The equipment required for each type of treatment and the location of the equipment within DWMUs designated as treatment units. ➤ <u>How incompatible waste streams will be evaluated for storage.</u> ➤ How it will be verified that ignitable and/or reactive wastes will not be accepted. ➤ Details on containment system design are not apparent in the text. 	WAC 173-303-160(2); -190(2), (3); -340(3); -395; -630; -640; -690; -691; -692; -806(4)
Addendum D, Groundwater	<ul style="list-style-type: none"> ➤ <u>An engineering report is not provided.</u> ➤ The monitoring plans are not specific to the Mixed Waste Trenches 31-34 and to Trench 94. ➤ Dangerous waste constituents are not specified. 	173-303-806(4)(xx); -645
Addendum E, Security	<ul style="list-style-type: none"> ➤ <u>How unauthorized personnel are kept out of areas that are unlocked during operating hours.</u> ➤ The training that personnel receive to restrict entry 	WAC 173-303-310; -806(4)

Attachment 1. Trenches 31-34-94 permit application items that make the application incomplete. [The items that primarily result in the application being incomplete are underlined, and the other items contribute to the application being incomplete.]

Addendum	The Addendum fails to describe, provide, or identify the following	Regulatory Basis
Addendum I, Inspection Plan	<ul style="list-style-type: none"> ➤ Who, specifically, performs inspections ➤ Who provides training for inspectors ➤ Requirement for inspecting fences or barricades, and what to look for. ➤ <u>Schedules and description of procedures for remedying problems.</u> ➤ <u>Example logs or checklists specific to each DWMU.</u> ➤ Requirements for inspecting monitoring and treatment equipment and what to look for. 	WAC 173-303-320; -340; -806(4)
Addendum F, Preparedness and Prevention	<ul style="list-style-type: none"> ➤ How, and how often the equipment is tested and maintained. ➤ Methods on how prevention of incompatible wastes in containers is accomplished. 	WAC 173-303-340; -806(4); -395(1); -630(9) -640(9), (10)
Addendum J, Contingency Plan	<ul style="list-style-type: none"> ➤ HEMP is being revised; will need updated contingency plan submittal to be consistent. ➤ Where ALL emergency equipment is located. ➤ Primary and alternate evacuation routes. ➤ DWMUs are not listed and described. 	WAC 173-303-145; -340; -350; -360; -630(2); -640(7); -806(4)
Addendum G, Personnel Training	<ul style="list-style-type: none"> ➤ <u>The written Dangerous Waste Training Plans are not provided. Information contained in the written Dangerous Waste Training Plans is required to be included in the Personnel Training addenda. As a result, it is not possible to determine if the information in the permit application is complete (all three OUGs).</u> ➤ Specific job descriptions and duties associated with the positions. ➤ A description of how training will be designed to meet actual job tasks. ➤ The person or position who directs the training program. ➤ The format of training and assessment of the training program. ➤ Description of the process for On the Job Training to ensure appropriate oversight. ➤ Training courses with a course description for each, and the course frequency. ➤ Description of the recordkeeping system including training records or record retention. ➤ Training requirements or qualifications that are identified in other addenda. 	WAC 173-303-330; -806(4)
Addendum H, Closure Plans, Appendixes H-A through H-C	<ul style="list-style-type: none"> ➤ Specific training and inspection requirements for closure activities, if not described in another addendum ➤ <u>A general cover design (Modified Subtitle C landfill cover) is included, however final cover designs must be complete and included in the closure plan as of the effective date of the Permit. (Appendix H-A and H-C)</u> 	WAC 173-303-610; -620; -630(10); -640(8); -665(6); -806(4)

Attachment 1. Trenches 31-34-94 permit application items that make the application incomplete. [The items that primarily result in the application being incomplete are underlined, and the other items contribute to the application being incomplete.]

Addendum	The Addendum fails to describe, provide, or identify the following	Regulatory Basis
	<ul style="list-style-type: none"> ➤ How the leachate collection system will be operated, monitored, and maintained to collect and remove leachate from the landfills during Post Closure. Closure Plan requirements must be established in the Permit vs. citing regulations. (Appendix H-A) ➤ <u>Detailed description of waste removal methods.</u> (Appendix H-B) ➤ Characterization to demonstrate compliance with applicable LDR treatment standards for waste inventory removed, or waste generated during closure. (Appendix H-B) 	

Attachment 2. Central Waste Complex – Waste Receiving and Processing Facility permit items that make the application incomplete. [The items that primarily result in the application being incomplete are underlined, and the other items contribute to the application being incomplete.]

Addendum	The Addendum fails to describe, provide, or identify the following	Regulatory Basis
Part A Form	<ul style="list-style-type: none"> ➤ The topographic map does not meet the requirements of 173-303-806. 	173-303-803(3); -806(4)(a)(xviii)
Addendum B, Waste Analyses	<ul style="list-style-type: none"> ➤ <u>Dangerous waste acceptance requirements for each DWMU.</u> <ul style="list-style-type: none"> ○ How wastes accepted at one SWOC unit are transferred to another SWOC unit. ○ Wastes that are prohibited at each unit. ➤ <u>Specific information required for a waste profile.</u> ➤ Discrepancy and rejections criteria and procedures. ➤ <u>The waste tracking mechanism used at the unit.</u> 	WAC 173-303-110; -140; -300; -350(3); -370; -395; -630(7), (9); -640(1), (2), (3), (10); -690; -691; -692; -806(4); [40 CFR Part 264 Subparts AA, BB, and CC]
Addendum C, Process Information	<ul style="list-style-type: none"> ➤ <u>A description of each DWMU, including activities (generation, treatment, storage), where they occur, and the type of waste at each DWMU.</u> ➤ Basis for storage capacities of each DWMU (e.g., filling outdoor area with containers; a row of drums must be no more than two drums wide). ➤ How and where waste is generated and tracked. ➤ Clearly identify specific storage areas (buildings, modules) as DWMUs rather than groups of units. ➤ <u>How ignitable, reactive, and incompatible wastes will be evaluated for storage.</u> ➤ Details on containment system design are not apparent in the text. ➤ The waste streams designated for treatment and specific types of treatment required for each waste stream. ➤ The specific types of treatment performed at DWMUs identified as treatment units. ➤ The equipment required for each type of treatment and the location of the equipment within DWMUs designated as treatment units. ➤ The storage areas located outside buildings "provide a place to stage containers ..." These areas will not be permitted for container storage, but used for staging only. 	WAC 173-303-160(2); -190(2), (3); -340(3); -395; -630; -640; -690; -691; -692; -806(4)
Addendum E, Security	<ul style="list-style-type: none"> ➤ <u>How unauthorized personnel are kept out of areas that are unlocked during operating hours.</u> ➤ The closing DWMUs currently storing waste are not in the list of DWMUs. ➤ The training that personnel receive to restrict entry. 	WAC 173-303-310; -806(4)

Attachment 2. Central Waste Complex – Waste Receiving and Processing Facility permit items that make the application incomplete. [The items that primarily result in the application being incomplete are underlined, and the other items contribute to the application being incomplete.]

Addendum	The Addendum fails to describe, provide, or identify the following	Regulatory Basis
Addendum I, Inspection Plan	<ul style="list-style-type: none"> ➤ Who, specifically, performs inspections. ➤ Who provides training for inspectors. ➤ Requirement for inspecting fences or barricades, and what to look for. ➤ <u>Schedules and description of procedures for remedying problems.</u> ➤ <u>Example logs or checklists specific to each DWMU (or group of units).</u> ➤ Requirements for inspecting monitoring and treatment equipment, and what to look for. ➤ Requirements for inspecting emergency lighting and uninterruptable power supply, and what to look for. 	WAC 173-303-320; -340; -806(4)
Addendum F, Preparedness and Prevention	<ul style="list-style-type: none"> ➤ How, and how often the equipment is tested and maintained. ➤ An alternative water source that meets requirements for adequate water supply. ➤ How the reaction of ignitable, reactive, and/or incompatible wastes will be prevented. 	WAC 173-303-340; -806(4); -395(1); -630(9) -640(9), (10)
Addendum J, Contingency Plan	<ul style="list-style-type: none"> ➤ HEMP being revised; will need updated contingency plan submittal to be consistent. ➤ Where ALL emergency equipment is located. ➤ List of DWMUs is not consistent with DWMUs listed in other Addenda. 	WAC 173-303-145; -340; -350; -360; -630(2); -640(7); -806(4)
Addendum G, Personnel Training	<ul style="list-style-type: none"> ➤ <u>The written Dangerous Waste Training Plans are not provided. Information contained in the written Dangerous Waste Training Plans is required to be included in the Personnel Training addenda. As a result, it is not possible to determine if the information in the permit application is complete (all three OUGs).</u> ➤ Specific job descriptions and duties associated with the positions. ➤ A description of how training will be designed to meet actual job tasks. ➤ The person or position who directs the training program. ➤ The format of training and assessment of the training program. ➤ Description of the process for On the Job Training to ensure appropriate oversight. ➤ Training courses with a course description for each, and the course frequency. ➤ Description of the recordkeeping system including training records or record retention. ➤ Training requirements or qualifications that are identified in other addenda. 	WAC 173-303-330; -806(4)

Attachment 2. Central Waste Complex – Waste Receiving and Processing Facility permit items that make the application incomplete. [The items that primarily result in the application being incomplete are underlined, and the other items contribute to the application being incomplete.]

Addendum	The Addendum fails to describe, provide, or identify the following	Regulatory Basis
Addenda H-A through H-G, and Part V, H3	<ul style="list-style-type: none"> ➤ Specific training and inspection requirements for closure activities, if not described in another addendum. ➤ <u>Detailed description of waste removal methods.</u> ➤ How is closure achieved for a single DWMU within 2336-W building (Appendix H-F). ➤ Characterization to demonstrate compliance with applicable LDR treatment standards for waste inventory removed, or waste generated during closure. 	WAC 173-303-610; -620; -630(10); -640(8); -806(4)

Attachment 3. T Plant Complex Permit Application items that make the application incomplete. [The items that primarily result in the application being incomplete are underlined, and the other items contribute to the application being incomplete.]

Addendum	The Addendum fails to describe, provide, or identify the following	Regulatory basis
Part A Form	<ul style="list-style-type: none"> ➤ The topographic map does not meet the requirements of 173-303-806. 	173-303-803(3), -806(4)(a)(xviii)
Addendum B, Waste Analyses	<ul style="list-style-type: none"> ➤ <u>Dangerous waste acceptance requirements for each DWMU.</u> <ul style="list-style-type: none"> ○ How wastes accepted at one SWOC unit are transferred to another SWOC unit ○ Wastes that are prohibited at the unit. ➤ Discrepancy and rejections criteria and procedures. ➤ <u>Specific information required for a waste profile.</u> ➤ How ignitable, reactive, and incompatible wastes will be evaluated for storage. ➤ <u>The waste tracking mechanism used at the unit.</u> 	WAC 173-303-110; -140; -300; -350(3); -370; -395; -630(7), (9); -640(1), (2), (3), (10); -690; -691; -692; -806(4); [40 CFR Part 264 Subparts AA, BB, and CC]
Addendum C, Process Information	<ul style="list-style-type: none"> ➤ <u>A description of each DWMU, including activities (generation, treatment, storage), where they occur, and the type of waste at each DWMU.</u> ➤ The basis for volume of waste stored (e.g., filling outdoor area with containers; a row must be no more than two drums wide). ➤ How and where waste is generated and tracked. ➤ <u>How incompatible waste streams will be evaluated for storage.</u> ➤ Details on containment system design are not apparent in the text. ➤ The waste streams designated for treatment and specific types of treatment required for each waste stream. ➤ The specific types of treatment performed at DWMUs identified as treatment units. ➤ The equipment required for each type of treatment and the location of the equipment within DWMUs designated as treatment units. ➤ The storage areas located outside buildings "provide a place to stage containers ..." These areas will not be permitted for container storage, but used for staging only. ➤ The T-Plant Complex also identifies several outdoor storage areas. Ecology questions the need for permitting these outdoor storage areas. 	WAC 173-303-160(2); -190(2), (3); -340(3); -395; -630; -640; -690; -691; -692; -806(4)
Addendum E, Security	<ul style="list-style-type: none"> ➤ <u>How unauthorized personnel are kept out of areas that are unlocked during operating hours.</u> ➤ The training personnel receive to restrict entry. 	WAC 173-303-310; -806(4)
Addendum I, Inspection Plan	<ul style="list-style-type: none"> ➤ Who, specifically, performs inspections. ➤ Who provides training for inspectors. ➤ Requirement for inspecting fences or barricades, and what to look for. 	WAC 173-303-320; -340; -806(4)

Attachment 3. T Plant Complex Permit Application items that make the application incomplete. [The items that primarily result in the application being incomplete are underlined, and the other items contribute to the application being incomplete.]

Addendum	The Addendum fails to describe, provide, or identify the following	Regulatory basis
	<ul style="list-style-type: none"> ➤ <u>Schedules and description of procedures for remedying problems.</u> ➤ <u>Example logs or checklists specific to each DWMU.</u> ➤ Requirements for inspecting monitoring and treatment equipment, and what to look for. ➤ Requirements for inspecting emergency lighting and uninterruptable power supply, and what to look for. 	
Addendum F, Preparedness and Prevention	<ul style="list-style-type: none"> ➤ How and how often the equipment is tested and maintained. ➤ An alternative water source that meets the requirements for adequate water supply. ➤ How the reaction of ignitable, reactive, and/or incompatible wastes will be prevented. 	WAC 173-303-340; -806(4); -395(1); -630(9) -640(9), (10)
Addendum J, Contingency Plan	<ul style="list-style-type: none"> ➤ HEMP being revised; will need updated contingency plan submittal to be consistent. ➤ Where ALL emergency equipment is located. ➤ List of DWMUs is not consistent with DWMUs listed in other Addenda. 	WAC 173-303-145; -340; -350; -360; -630(2); -640(7); -806(4)
Addendum G, Personnel Training	<ul style="list-style-type: none"> ➤ <u>The written Dangerous Waste Training Plans are not provided. Information contained in the written Dangerous Waste Training Plans is required to be included in the Personnel Training addenda. As a result, it is not possible to determine if the information in the permit application is complete (all three OUGs).</u> ➤ Specific Job descriptions and duties associated with the positions. ➤ A description of how training will be designed to meet actual job tasks. ➤ The person or position who directs the training program. ➤ The format of training and assessment of the training program. ➤ Description of the process for On the Job Training to ensure appropriate oversight. ➤ Training courses with a course description for each, and the course frequency. ➤ Description of the recordkeeping system including training records or record retention. ➤ Training requirements or qualifications that are identified in other addenda. 	WAC 173-303-330; -806(4)
Addendum H, Closure Plans, Appendixes H-A through H-I	<ul style="list-style-type: none"> ➤ Specific training and inspection requirements for closure activities, if not described in another addendum. ➤ <u>Detailed description of waste removal methods.</u> ➤ Characterization to demonstrate compliance with applicable LDR treatment standards for waste inventory removed, or waste generated during closure. 	WAC 173-303-610; -620; -630(10); -640(8); -806(4)