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STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

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October 23, 2015

15-NWP-189

Mr. Ray J. Corey, Assistant Manager for the River and Plateau  
Richland Operations Office  
United States Department of Energy  
PO Box 550, MSIN: A5-11  
Richland, Washington 99352

Re: Modeling Requirements for 200-BP-5 and 200-PO-1 Remedial Investigation Reports

Dear Mr. Corey:

The Department of Ecology (Ecology) received United States Department of Energy – Richland Operations Office (USDOE) submittal of the *Remedial Investigation Report for the 200-BP-5 Groundwater Operable Unit*, DOE/RL-2009-127, Draft A (200-BP-5 Remedial Investigation Report), and the Remedial Investigation Report for the 200-PO-1 Groundwater Operable Unit Addendum 1, DOE/RL-2009-85 ADD1, Draft A (200-PO-1 Remedial Investigation Report) on August 11, 2015.

Ecology is suspending our review of the referenced documents due to issues related to the fate and transport modeling of potential impacts to the groundwater.

USDOE must use the *Final Tank Closure and Waste Management Environmental Impact Statement for the Hanford Site*, DOE/EIS-0391F (TC&WM EIS) models to develop a case that reflects the current and future impacts on the groundwater units from all associated soil operable units. The TC&WM EIS models were subject to systematic Quality Assurance (QA), data validation and calibration in response to a lawsuit concerned with QA of models and data used in the *Final Hanford Site Solid Radioactive and Hazardous Waste Program Environmental Impact Statement*, DOE/EIS-0286F.

The TC&WM EIS data and models were subjected to a number of data quality reviews by groups, which included a four member expert panel, USDOE, Ecology and our contractor throughout its development. Ecology participated in the development of the TC&WM EIS as a Cooperating Agency and as such, is familiar with and agreed to the internal TC&WM EIS QA and Quality Control (QC) processes used.

The TC&WM EIS contains inventory estimates for all soil sites which are and will be impacting the 200-BP-5 and 200-PO-1 groundwater units. That information must be part of the groundwater unit modeling used for regulatory decisions. Therefore, new and additional data collected after that used in the TC&WM EIS will be subjected to appropriate QA/QC, documented, identified as changes approved by Ecology, and then incorporated into the TC&WM EIS models.



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Because the 200-BP-5 Remedial Investigation Report will be used to support the closure plan for Waste Management Area C (WMA C), the soil inventory for WMA C used in the TC&WM EIS model (or any other soil unit where more current data are available) must be updated to match that determined during WMA C investigations and performance assessment workshops.

The document containing soil inventory for WMA C, *Hanford Waste Management Area C Soil Contamination Inventory Estimates*, RPP-RPT-42294, Revision 2, is being revised and will be available soon.

Please coordinate with the United States Department of Energy – Office of River Protection to obtain the final inventory data for use in the TC&WM EIS models for 200-BP-5.

The integrity of the TC&WM EIS models, assumptions and parameters must be maintained and controlled. Any proposed changes to any of the underlying assumptions, model configuration and parameters must be submitted to Ecology with the appropriate justification for approval of the changes prior to the use and reporting of model results in documents subject to Ecology review and approval. Ecology will require USDOE to run the data as presented in the TC&WM EIS as a QA check and then run the model with the updated data.

USDOE can choose to use an alternate model and present the results in the remedial investigations for 200-BP-5 and 200-PO-1; but the TC&WM EIS models must also be performed with the results documented in the respective remedial investigations.

Use of alternate models, in addition to the TC&WM EIS models, requires documentation similar to those detailed in Appendix O of the *Remedial Investigation/Feasibility Study for 100-DR-1, 100-DR-2, 100-HR-1, 100-HR-2, and 100-HR-3 Operable Units*, DOE/RL-2010-095, Rev. 0 which is based on the regulations in Washington Administrative Code 173-340-747(8).

The above requirements will necessitate major changes to the above listed documents. Therefore, Ecology has suspended review of these documents.

To determine an acceptable schedule for resubmittal of the 200-BP-5 Remedial Investigation and 200-PO-1 Remedial Investigation Report Supplement, please contact Nina M. Menard, Environmental Restoration Project Manager, at [nina.menard@ecy.wa.gov](mailto:nina.menard@ecy.wa.gov) or (509) 372-7941, or Kim Welsch, Environmental Specialist, at [kim.welsch@ecy.wa.gov](mailto:kim.welsch@ecy.wa.gov) or (509) 372-7882.

Sincerely,

Cheryl Whalen  
Cleanup Section Manager  
Nuclear Waste Program

nm/aa

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Environmental Portal  
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Administrative Record  
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