Inter-Agency Management Integration Team Meeting Minutes
WMA-C Baseline Risk Assessment Remaining Issues
November 21, 2019

Tri-Party Agreement

U.S. Department of Energy
Washington State Department of Ecology
U.S. Environmental Protection Agency

SIGNATURES:

Approval: _____ Date: 2/24/2020
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Approval: _____ Date: 3/18/2020
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1.0 INTRODUCTION

The Washington State Department of Ecology (Ecology), U.S. Environmental Protection Agency (EPA) and U.S. Department of Energy (DOE) staff continued discussions on Waste Management Area-C (WMA-C) Baseline Risk Assessment (BRA) remaining items as this meeting was a follow-on meeting to the May 8, 2019 Special Inter-Agency Management Integration Team (IAMIT) and pertains to Groundwater Ingestion and Food Chain Pathway. The purpose of this IAMIT meeting was to resolve these two remaining issues.

2.0 WMA-C BASELINE RISK ASSESSMENT REMAINING ISSUES

2.1 Summary

Ecology will review the discussed material internally and come back to DOE to finalize an IAMIT determination to resolve the remaining two issues on Groundwater Ingestion and Food Chain Pathway. The Parties agreed that an additional follow-up special IAMIT would not be needed.

2.2 Food Chain Pathway Discussion

Ecology stated they agree that residential and subsistence farmer exposure scenarios are not consistent with current and reasonable anticipated future land use on the Central Plateau. Ecology asked if the Food Chain Pathway is inconsistent with the future land use, then why were radionuclides analyzed. DOE responded that radionuclides were analyzed as a carryover from the Washington Department of Health's (WDOH) request to know how the process worked in the River Corridor. CH2M Hill Plateau Remediation Company (CHPRC) noted there were scoping discussions on exposure scenarios to evaluate, and one of the data packages identified was a scenario for radionuclides. Therefore, the radionuclides were analyzed.

Ecology stated that the logic is inconsistent because DOE is expressing the food chain pathway scenario is not reasonable, but still analyzed it for radionuclides. CHPRC reported there were many exposure scenarios identified for information purposes. DOE confirmed there were multiple scoping meetings where individuals were able to propose scenarios to be run for informational purposes, regardless if the area was for industrial use. DOE noted one of the reasons to have an Inner Area Principles agreement is not to analyze for a land use that is not intended for the Central Plateau.

Ecology explained they will need to follow-up further with internal staff. Ecology then asked if WDOH requested analyzing the radionuclides as part of a scenario. CHPRC responded WDOH did not request the scenario, but they helped develop the scenarios and guidance document to direct the scenario data package.

Ecology noted they do not remember how the requests were originally made, but recall having workshops for developing scenarios. Ecology explained their concern is that only rad issues are being analyzed when there are also other chemicals involved. Ecology stated they believe it is

important to have an agreement that the Parties run scenarios that normally would not happen if the land use was unrestricted or industrial.

Ecology asked why there was no effort to resolve the statement by Ecology in the WMA-C BRA, Revision 0, regarding the need to evaluate and resolve the food chain pathway for chemicals. An Ecology staffperson explained the process was to resolve the comments that could be resolved, and elevate comments that could not be resolved at the appropriate time of the process.

Ecology confirmed they would review the issue internally and get back to DOE within a day.

2.3 Groundwater Ingestion Discussion

Ecology reported that DOE's groundwater ingestion position paper refers to elevating the groundwater risk for the 200-BP-5 Remedial Investigation (RI). However, the IAMIT Determination states the source unit remedial investigation/feasibility study (RI/FS) and RCRA facility investigation/corrective measures study (RFI/CMS) will assess potential future contaminant contribution from the vadose zone to the groundwater. DOE stated they agree with that statement.

CHPRC noted that DOE's position paper states existing contamination in groundwater is not going to be evaluated in the WMA-C RFI/CMS because it is evaluated in the 200-BP-5 RI. Ecology countered with the IAMIT Determination source unit, pointing out that everything in the vadose zone should be evaluated as part of the impact to groundwater. CHPRC responded that what is being evaluated is the leaching pathway to groundwater. CHPRC stated that the RFI would evaluate whether groundwater would not be taken above the maximum contaminant level (MCL) or protective concentrations defined by the Model Toxic Control Act (MTCA-B).

Ecology asked if it was possible that the evaluation excludes contaminants that exist there now or could be generated from future sites. CHPRC responded that the WMA-C BRA and the RFI evaluate the contaminants in the vadose zone and whether or not they will affect groundwater. DOE noted Ecology may want an evaluation of WMA-C with contaminants from other Operable Units (OU). DOE stated it is not consistent to evaluate other contaminants of concern (COC) that are not part of this area in this evaluation. Ecology responded that the summary appears to evaluate irrigation of crops and drinking water for livestock, which is inconsistent with reasonable anticipated future land use. Ecology stated the evaluation should be used for the Outer Area. If the leaching groundwater goes from the Inner Area to the Outer Area, it should be evaluated.

CHPRC stated the 200-BP-5 RI evaluates the contaminants in groundwater and its pathways, and the 200-BP-5 RI does not identify irrigation as a pathway. The WMA-C BRA evaluates whether contaminants in that area can reach groundwater or not.

Ecology asked if drinking water and irrigation should be evaluated if contaminants reach groundwater and the contaminants migrate to the outer area. CHPRC responded that the evaluation refers back to the 200-BP-5 RI and the 200-BP-5 RI is not evaluating the irrigation pathway.

Ecology explained they are referencing the outer area and if the leaching goes down to the groundwater from the Inner Area to the Outer Area. DOE asked why an irrigation scenario would be used for WMA-C if the WMA-C is not part of the Outer Area. Ecology responded that if a well is used in the Outer Area for irrigation, it needs to be evaluated if it meets drinking water standards. DOE explained that what Ecology was looking for was irrigation over WMA-C leaching through to the groundwater to be evaluated.

Ecology stated it is reasonable to evaluate the Outer Area irrigation, and asked if it is evaluated in the RFI/CMS. CHPRC responded that it is not evaluated in RFI/CMS or the 200-BP-5 RI. Ecology stated that it should be evaluated.

DOE agreed that WMA-C is industrial and should not be evaluated for irrigation. Ecology confirmed. DOE noted that WMA-C efforts for the BRA evaluation should be done, but the Outer Area irrigation scenario should be evaluated in 200-BP-5 RI.

CHPRC reported that the chemicals in the soil and the vadose zone under WMA-C are evaluated for whether or not they would impact groundwater. Out of the chemicals that have been evaluated, there is one chemical above the equation, and it is cadmium. Therefore, there is not a significant chemical impact on groundwater taking place that would carry beyond the central plateau.

Ecology asked if the WMA-C is being evaluated for radionuclides. CHPRC responded that there are four documents produced for WMA-C, and the Past Leaks Evaluation looks at radionuclides. CHPRC stated Technetium (Tech-99) is accounted for in 200-BP-5 RI, and the 200-BP-5 RI predicted it would not leave the Central Plateau industrial area above the MCL value.

DOE asked if between the Tech-99 and cadmium that gets into the groundwater, levels were below drinking water standards. CHPRC responded there is no cadmium in the groundwater. CHPRC added that out of about 200 measurements of cadmium in WMA-C soils, only one measurement was above the background value. For Tech-99 in groundwater, there is clear evidence it came from WMA-C and there is currently about 0.1 curies arriving each year, but it does not leave the industrial area above the MCL.

Ecology confirmed they will review internally, and get back to DOE. The Parties agreed a further special IAMIT would not be needed, but IAMIT determinations will be required to close out these two remaining WMA-C issues.

3.0 OTHER ITEMS

No other discussion took place between the IAMIT team. Meeting was adjourned.

Tri-Party Agreement

TPA Interagency Management Integration Team Meeting – Special Topic: WMA-C Baseline Risk Assessment Remaining Items

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Name	Organization
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