

TRI-PARTY AGREEMENT

Change Notice Number TPA-CN- 471	TPA CHANGE NOTICE FORM	Date: 7/1/11
Document Number, Title, and Revision: 200-ZP-1 Interim Remedial Measure Remedial Design Report, DOE/RL-96-07, Rev. 4.		Date Document Last Issued: June 2008
Originator: Mark Byrnes		Phone: 373-3996

Description of Change:

Delete technetium-99 (Tc-99), chromium (Cr), iodine-129 (I-129) and tritium (H-3) from the list of 200-ZP-1 groundwater sample analytes for extraction well EW-8, EW-9 (except Tc-99), EW-11, EW-12, EW-13 and EW-14. Delete I-129 as a process sample analyte.

B. Charboneau and E. Laija agree that the proposed change
DOE **Lead Regulatory Agency**
modifies an approved workplan/document and will be processed in accordance with the Tri-Party Agreement Action Plan, Section 9.0, *Documentation and Records*, and not Chapter 12.0, *Changes to the Agreement*.

Because of sustained low contaminant levels, Tc-99, Cr, I-129 and H-3 are deleted as groundwater analytes for EW-8, EW-9 (except Tc-99), EW-11, EW-12, EW-13 and EW-14, and I-129 is deleted as a process sample analyte. These changes are reflected in the Process Sampling and Analysis Plan, section 7.0, in the 200-ZP-1 Interim Remedial Measure Remedial Design Report, (DOE/RL-96-07) for the 200-ZP-1 interim action pump and treat facility. Revised Table 7-1 is attached. Table 7-1 is also revised to show the correct well number for EW-9 (299-W15-225). Well 299-W15-225 replaced well 299-W15-44 as EW-9. Well 299-W15-44 remains in service as a monitoring well. Table 7-1 is also revised to show the wells that are now offline due to low water levels.

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Note: Include affected page number(s)

Justification and Impacts of Change:

Review of the analytical data for the interim action 200-ZP-1 pump and treat facility groundwater and process samples shows that contaminant levels are significantly below drinking water standards in the last five years in all of the currently-online extraction wells for Tc-99, Cr, I-129 and H-3 (with all I-129 results undetectable in both groundwater and process sample results). Sampling will continue for the 200-ZP-1 pump and treat facility influent and effluent and well EW-9 (299-W15-225) for Tc-99 to track potential changes in concentration since well 299-W15-225 is close to well 299-W15-44. Well 299-W15-44 is now a monitoring well with high concentrations of Tc-99, but to date well 299-W15-225 has had low concentrations of Tc-99.

Approvals:

 DOE Project Manager	 EPA Project Manager	7/1/11 Date	<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved
		7/1/11 Date	<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved

pump-and-treat system. At a minimum during initial system startup, water and air samples will be collected and analyzed using field-screening methods every 15 to 20 minutes to assess the performance of the treatment system. This will ensure that three or four liquid samples have been collected and analyzed before any treated water is discharged to the injection well. After adequate system operation has been verified, air and water samples will be collected and analyzed hourly for the first 8 hours of operation, and then daily for the first week of operation.

Table 7-1. Process Sample Locations, Analytes, Matrices, and Frequencies for Phase III Operations. (2 sheets)

Sample Location	Analytes	Sample Matrix	Sample Frequency
Extraction well #1 (299-W15-45)	CCl ₄ , TCM, TCE	Groundwater	At least once per month during routine system operation.
Extraction well #2 (299-W15-34)	CCl ₄ , TCM, TCE	Groundwater	At least once per month during routine system operation.
Extraction well #3 (299-W15-35)	CCl ₄ , TCM, TCE	Groundwater	At least once per month during routine system operation.
Extraction well #4 (299-W15-47)	CCl ₄ , TCM, TCE	Groundwater	At least once per month during routine system operation. Offline
Extraction well #5 (299-W15-36)	CCl ₄ , TCM, TCE	Groundwater	At least once per month during routine system operation. Offline
Extraction well #6 (299-W15-6)	CCl ₄ , TCM, TCE	Groundwater	At least once per month during routine system operation. Offline
Extraction well #7 (299-W15-40)	CCl ₄ , TCM, TCE Fe-99 ^a , Cr ^a , I-129, H-3	Groundwater	At least once per month during routine system operation. Offline
Extraction well #8 (299-W15-43)	CCl ₄ , TCM, TCE Fe-99 ^a , Cr ^a , I-129, H-3	Groundwater	At least once per month during routine system operation.
Extraction well #9 (299-W15-44)-299-W15-225	CCl ₄ , TCM, TCE Tc-99 ^a , Cr ^a , I-129, H-3	Groundwater	At least once per month during routine system operation.
Extraction well #10 (299-W15-765)	CCl ₄ , TCM, TCE Fe-99 ^a , Cr ^a , I-129, H-3	Groundwater	At least once per month during routine system operation. Offline
Extraction well #11 (299-W15-1)	CCl ₄ , TCM, TCE Fe-99 ^a , Cr ^a , I-129, H-3	Groundwater	At least once per month during routine system operation.
Extraction well #12 (299-W15-7)	CCl ₄ , TCM, TCE Fe-99 ^a , Cr ^a , I-129, H-3	Groundwater	At least once per month during routine system operation.
Extraction well #13 (299-W15-11)	CCl ₄ , TCM, TCE Fe-99 ^a , Cr ^a , I-129, H-3	Groundwater	At least once per month during routine system operation.
Extraction well #14 (299-W15-46)	CCl ₄ , TCM, TCE Fe-99 ^a , Cr ^a , I-129, H-3	Groundwater	At least once per month during routine system operation.
Post-tank T-01 (at 0.5-in. BV TSL02-V01)	CCl ₄ , TCM, TCE, Tc-99, I-129 H-3	Process water	At least once per month during routine system operation. Monthly fixed laboratory confirmation samples for VOC analyses.
Post-tank T-02 (at 0.5-in. BV 101-V01)	CCl ₄ , TCM, TCE, Tc-99, I-129 H-3	Process water	At least once per month during routine system operation. Monthly fixed laboratory confirmation samples for VOC analyses.

Table 7-1. Process Sample Locations, Analytes, Matrices, and Frequencies for Phase III Operations. (2 sheets)

Sample Location	Analytes	Sample Matrix	Sample Frequency
Post-air stripper (0.75-in. valve near TSA02-V01)	CCl ₄ , TCM, TCE	Process air	At least once per month during routine system operation. Monthly fixed laboratory confirmation samples for VOC analyses.
Post-GAC treatment (0.75-in. valve near TSA03-PI)	CCl ₄ , TCM, TCE	Process air	At least once per month during routine system operation. Monthly fixed laboratory confirmation samples for VOC analyses.

^a Tc-99 and chromium are analyzed in a fixed laboratory on quarterly basis. Nitrate is analyzed in the field laboratory on an as-needed basis.

CCl₄ = carbon tetrachloride

Cr = chromium

FY = fiscal year

GAC = granular activated carbon

TCE = trichloroethylene

TCM = chloroform

Tc-99 = technetium-99

After sufficient data are collected to indicate that the system parameters are stable, samples will be collected less frequently. As shown in Table 7-1, the sampling frequency is at least once (but not more than twice) a month during routine, stable system operation. In addition to routine sampling, additional samples may be collected as needed to assess system performance during system upsets or to monitor specific conditions such as anticipated breakthrough between GAC columns.

While the treatment system is operating under routine conditions, process water samples are collected for analysis by a fixed laboratory each calendar quarter. In addition, process air samples will be collected and analyzed by a fixed laboratory on a monthly basis. These sample results are used to confirm the field-screening results. As shown in Table 7-1, process water samples are collected from two sampling locations: post-tank T-01 (influent water) and post-tank T-02 (effluent water). Process air samples are collected after the air-stripping tower (pre-GAC treatment) and after the GAC treatment columns (post-GAC treatment). Table 7-1 lists the analyses and frequencies of sampling for the extraction wells, process water, and process air treatment trains.

7.2.1 Sample Identification

Samples collected for onsite field laboratory analysis are assigned numbers as appropriate and are recorded in the project field logbook. At a minimum, each sample is labeled with the following: sample location, sample date, sample time, and the sampler's initials. Chain-of-custody records are completed at the conclusion of each sampling event and must accompany samples at all times.

For all samples, sample custody will be maintained in accordance with existing Hanford Site protocols. The custody of samples will be maintained from the time that the samples are collected until ultimate disposal of the samples, as appropriate. A chain-of-custody record will be initiated in the field at the time of sampling and will accompany each set of samples (cooler)