

# START

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Change Request M17-93-12  
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Change Number M17-93-12	Federal Facility Agreement and Consent Order Change Control Form Do not use blue ink. Type or print using black ink.	Date November 1, 1993
Originator M. J. Furman	Phone (509)376-7062	
Class of Change <input type="checkbox"/> I - Signatories <input type="checkbox"/> II - Project Manager <input checked="" type="checkbox"/> III - Unit Manager		
Change Title Revisions to the Plutonium Finishing Plant Wastewater Sampling and Analysis Plan		
Description/Justification of Change Revision to update organization names and responsibilities, stream contributors, references list as configurations and other documents change, and to add clarifying statements is also requested.  1. Revise the Plutonium Finishing Plant Wastewater Sampling Plan as follows:  Page 3      Update revision explanations by adding that revision 2 adds analytical procedure methods, updates the name of Office of Sample Management to Hanford Analytical Services Management, changes the sample identification to the HEIS system, references the number of the sampling procedure and updates the stream contributor discussion.  Justification:      The previous revisions have contained an explanation of why each revision was written. This addition will keep the information current.  (continued on next page)		
Impact of Change No adverse technical impacts.		
Affected Documents Plutonium Finishing Plant Wastewater Sampling and Analysis Plan, WHC-SD-CP-PLN-010, Rev 1		
Approvals <input checked="" type="checkbox"/> Approved      ___ Disapproved		
DOE	<u>R. Bryson</u>	<u>12/2/93</u> Date
EPA	<u>Doug Munnell</u>	<u>12/2/93</u> Date
Ecology	<u>Melinda A. Selby</u>	<u>12/2/93</u> Date

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Description/Justification of Change (continued)

- Page 11 Change name from Office of Sample Management to Hanford Analytical Services Management.  
Justification: Update. Organization has changed its name.
- Page 13 Delete the auditing of records and procedures, and the issuing of stop work orders if procedures are not being followed, from the list of Quality Assurance responsibilities.  
Justification: Update. Reorganization has moved auditing from Quality Assurance to another organization. An unsatisfactory surveillance report will be written if a surveillance reveals a discrepancy in a sampling event.
- Page 13 Change wording to show grab samples may be taken at manhole number 4 anytime requested.  
Justification: Clarification. Revision 1 implied that grab samples could be taken at manhole number 4 only during periods of PRF operation.
- Page 14 Change wording to more accurately portray routine sampling frequency as follows; "A Manning Sampler in 2904-ZB is set to sample on a flow-proportional basis. The composite sample is deposited in a 15 gallon carboy and collected each day for total alpha activity and pH analysis....When PRF is operating, a grab sample will be taken at manhole number 4 each 8-hour shift and sent to the 222-S Laboratory for total alpha activity and pH analysis."  
Justification: Clarification/correction. The previous revision specified a sampling every 300 gallons. This figure is adjustable. Composite samples are collected on a daily basis regardless of PRF operating status.
- Page 15 Change from one to five reflux condensers for PRF training run. Add closed loop cooling intent for the cooling jackets and reflux condensers for PRF operations.  
Justification: Change in plant configuration.
- Page 16 Change numbering method for liquid effluent characterization samples to HEIS system  
Justification: Correction
- Page 18 Reference the sampling procedure number  
Justification: Reference implementing procedures per the QAPP requirement

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Description/Justification of Change (continued)

Page 20 Add arsenic by method 7060 and lead by 7421 to list of analytes and procedures.

Justification: Arsenic is now an analyte of interest in characterizing the crib, and lead is used throughout the facility in articles such as batteries, leaded gloves and other shielding.

Page 20 Add methods 353.1 and 353.2 to the method for nitrate/nitrite analysis

Justification: The additional methods will enhance the ability to perform the analyses by allowing a greater selection of analytical labs.

Page 20 Add method 9050 to the method for conductivity analysis

Justification: The additional analytical method will enable more laboratories to be chosen from and thus enhance the ability to complete analysis.

Page 25 Change "representative" to "complete" in discussing data handling of analytical results.

Justification: Consistency with the QAPP definitions.

Page 25 Change "laboratory contract" to "QAPP" in discussing data handling of analytical results.

Justification: Requirements in the laboratory contract are generic and may not meet the requirements for this sampling activity. The QAPP-011 requirements are specific to the liquid effluent sampling program.

Page 26,27 Update references list

Justification: To reflect current revisions of documents referenced

Page 28 Delete the phrase "To prevent this from happening" in the discussion of Open Drains.

Justification: Clarification. These words are a redundancy and the paragraph reads better as modified.

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Description/Justification of Change (continued)

Page 28 Change "No chemicals are used in these units and the wastewater contributors are essentially clean water" to "No chemicals are used in these units so the wastewater contributed is essentially clean water" in the discussion of HVAC Drains

Justification: Clarification

Page 28 Delete "also" and specify the wastewater discharged is from the pump in the discussion of Equipment Cooling Drains.

Justification: Clarification

Page 29 Add a paragraph discussing the possibility of contamination via cooling water lines opened for maintenance activities, in the discussion of Glove-box drains.

Justification: Clarification

Page 29 Change "the wastewater drain. The drain is an open standpipe located below a valve that diverts the water. This places the drain off the floor away from potential chemical spills." to "an open wastewater drain. A sudden change in water pressure will divert the water to an open wastewater drain. The drain is raised off the floor away from potential chemical spills." in the discussion of back-flow preventers.

Justification: Clarification

Page 30 Add 2736-ZB Support/Storage Complex as a contributor to Manhole Number 1 and change flow estimate from 4 to 2 gallons.

Justification: Updated information.

Page 30 Insert "contaminated" between radiological and processes to 234-5Z Building. Duct level statement about cooling water drains.

Justification: Clarification

Page 30 For 234-5Z Building, 2nd level, change six floor drains to four cooling water drains, delete floor drains from the list of areas where chemicals are not stored near, add a discussion of the 26 inch vacuum cooling water, and state that all six floor drains have been plugged.

Justification: Update. Change in plant configuration.

Page 31 Move the east end of the second floor contributors from Manhole number 1 to Manhole number 3.

Justification: Correction. The east end of the second floor in 234-5Z drains to manhole number 3.

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Description/Justification of Change (continued)

Page 31 Add 2736-ZB and description to list of manhole number 1 contributors.

Justification: Correction. It was previously believed that 2736-ZB did not contribute to manhole number 1, but it has now been found to.

Page 31 Add that Manhole number 2 once received steam condensate from 241-Z.

Justification: Enhance understanding

Page 32 Change the upper estimate of Manhole number 3 flow rate from 50 to 40 GPM.

Justification: Update.

Page 32 Specify that the equipment in 291-Z is compressors.

Justification: Clarification

Page 32 Change 234-5Z building, first floor contributors to manhole number 3, from two drinking fountains to one, two eye wash stations to one, three equipment cooling water drains to four, and add three HVAC cooling water drains.

Justification: Update as plant configuration changes and new sources are found.

Page 32 Change 234-5Z building, duct level manhole number 3 contributors from one equipment cooling water drain to two.

Justification: Correction. A second drain was found.

Page 33 Change 234-5Z building, second level manhole number 3 contributors from three floor drains to two

Justification: Update as plant configuration changes.

Page 34 Delete flow increase for manhole number 4 during PRF operation.

Justification: Update due to Closed Loop Cooling being installed.

Page 34 Delete from the 236-Z building first floor contributors to manhole number 4, one drinking fountain and two fire water drains, change from 10 to 8 the glove-box cooling water drains and add that these sources will cease to be contributors after project B-680 starts, by January 1994.

Justification: Update. Change in plant configuration.

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Description/Justification of Change (continued)

Page 35 Increase from 15 to 19 the number of steam condensate drains from the third floor of the 236-Z building which contribute to manhole number 4.

Justification: Correction. Four additional drains were found.

Page 35 Add the statement that the 17 inch vacuums will not discharge to manhole number 4 because closed-loop cooling project B-680 has been hooked up.

Justification: Clarification

Page 35 Include the HVAC condensate drain as being in the PRF control room.

Justification: Clarification

Page 35 Add a section for the 236-Z fire protection system being a possible contributor to manhole number 4.

Justification: Clarification. This addition is a possible source that was previously overlooked.

Page 36 Add a section that manhole number 7 receives wastewater from manhole number 2 and 4 and from tank D-9 sump.

Justification: Clarification. This intermittent source was previously overlooked.

Page 36 Change the statement in 231-Z building, first floor contributor to manhole number 9, that the air conditioner discharges to an open drain.

Justification: Clarification

Page 36 Delete the statement "All piping on this floor is enclosed with no chance of radiological contamination entering the crib" and add a statement that the vacuum pumps provide the only possible route for radiological contamination and they will be replaced with a closed-loop cooling system to be completed in August 1998, in the 231-Z Building, second floor contributor discussion for manhole number 9.

Justification: Clarification

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