



CH2M HILL
Plateau Remediation Company
PO Box 1600
Richland, WA
99352

MAR 05 2009

CHPRC-0900141

Mr. Michael Lidgard
NPDES Permit Unit
U.S. Environmental Protection Agency
1200 Sixth Avenue, Suite 900 .
OWW-130
Seattle, Washington 98101-3140

Dear Mr. Lidgard:

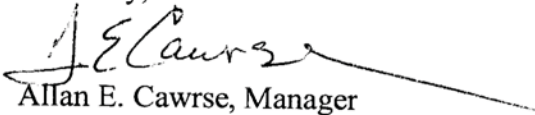
COMMENTS TO DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION
SYSTEM PERMIT WA-002591-7 AND FACT SHEET

Reference: Letter, M. J. Lidgard, EPA to S. L. Moore, CHPRC, "Hanford Nuclear
Reservation, NPDES Permit Number: WA-0002591-7," dated February 4, 2009.

The referenced letter transmitted the subject draft permit and initiated a 30 day public comment period. The attached table provides CH2M HILL Plateau Remediation Company (CHPRC) comments. Drafts of these comments have been discussed with Mr. John Drabek of the U.S. Environmental Protection Agency, Region 10.

You may contact me at (509) 376-3143, or your staff may contact Sonya Moore at (509) 372-3320 with any questions regarding this matter.

Sincerely,


Allan E. Cawrse, Manager
Environmental Protection

SLM:cag

Attachment

cc: J. C. Connerly, RL E. B. Dagan, RL
D. E. Jackson, RL S. K. Moy, RL
B. D. Williamson, RL J. Drabek, EPA

ATTACHMENT

CHPRC-0900141

**"COMMENTS TO DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION
SYSTEM PERMIT WA-002591-7 AND FACT SHEET"**
S. L. Moore

Consisting of 9 pages,
including this cover page

**COMMENTS TO NPDES PERMIT
AND FACT SHEET WA-002591-7**

CH2M Hill Plateau remediation Company, LLC (CHPRC)
P.O. Box 1600
Richland, WA 99352
Commentor: Ms. Sonya Moore, 509-372-3320 (H8-45)

No.	Pg	Section	Comments/Discrepancies	Basis	Recommendation
PERMIT					
1		General	The hard copy that was transmitted on 2-4-09 via OWW-130 is not the same as what is available at the EPA public comment site http://yosemite.epa.gov/r10/water.nsf/public+notices/ch2mhill		Comments are based on the version at the public comment site.
2	1	Authorization	CHPRC manages the outfalls subject to this permit in behalf of the owner (US Department of Energy)	CHPRC is the holder of the permit as a contractor to the U.S. Department of Energy	After ...(CHPRC), add “a Contractor of the US...”.
3	2	Schedule of Submissions Item 2	The due date identified for the QA Plan is 90 days from the effective date of the permit. This is consistent with section II.A., but not with the fact sheet which indicates 180 days.	Inconsistent with Fact Sheet, section VII.A.	Make the permit and the fact sheet consistent.
4	2	Schedule of Submissions Item 3	A Best Management Practices plan is called for in permit section II.B., but the Fact Sheet, VII.B. calls for an Operation and Maintenance Plan.	Inconsistency with Fact Sheet, section VII.B.	Make the permit and the fact sheet consistent.
5	5	I.B.1. first sentence	This sentence incorrectly indicates that Outfall 1 is associated with Table 1, Table 2, and Table 3.	Inaccurate information.	Modify the sentence to read “...from Outfall 001, Outfall 004, and Outfall 004B as specified in...below, respectively.”
6	5	I.B.1. second sentence	The term “figures” is misleading.	Improve clarity.	Change to Read “All values in the tables....”

No.	Pg	Section	Comments/Discrepancies	Basis	Recommendation
7	5	I.B.1. Table 1	The reference to footnote 3 is missing from the column heading for Daily Max.	Incomplete information.	Add reference to footnote “3” to the ‘Daily Max’ column heading
8	5	I.B.1. Table 1	The nitrite limit is overly restrictive. Adjustments to the treatment train to reduce nitrite levels results in higher cost due to inefficiencies the adjustments cause for treatment of organics. ¹	See Footnote 1, below	Increase nitrite limits to at least 150 ug/l as a daily maximum and 87 ug/l as a monthly average.
9	5	I.B.1. Table 1 Acute WET Limit block	The reference to footnote 4 is missing from the description of the Acute WET Limit.	Incomplete information.	Add a “4” at the end of the block describing the Acute Wet Limit to reference the footnote at the end of the table.
10	5	I.B.1. Table 1	The table is split between two pages.	Ease of reading	Do not split the table between pages.

¹ The existing nitrite limits are based on best professional judgment. The permittee had requested a nitrite maximum limit of 776 ug/l. No data was available on the treatability of nitrite and the 60 ug/l limit was based on the premise that generally nitrite is very susceptible to oxidation. In the ultra-violet light oxidation treatment the hydroxyl radicals are formed when the UV light breaks down the hydrogen peroxide that is added. What does not appear to be understood when the limit was determined was that the UV light also causes the reduction of nitrate present in the water to form nitrite. It is well documented that reduction of nitrate in UV reactors can produce a significant level of nitrite in water. If the equilibrium in this oxidation – reduction reaction shifts to the reduction side then the nitrite produced by this treatment process will produce nitrite in excess of the permit limits. The processes involved in this reaction were not accounted for in setting the current limit and the sensitivity of the reaction has become more evident in recent years as the flow has reduced. The UV oxidation unit parameters are currently being set in an effort to minimize the amount of nitrite added to the wastewater and not driven by treatment of organic constituents as is the intended function of the treatment operation. This means the facility is using significantly more hydrogen peroxide and electrical power than would be necessary for the treatment of the organics in the wastestream. Derivation of the daily maximum limit by the methodology in the EPA Technical Support Document using the nitrite results over the past two years of TEDF operation indicate an increase in the limit is appropriate. An increase of the daily maximum limit to at least 150 ug/l with the commensurate increase in the average monthly limit to at least 87 ug/l is requested.

No.	Pg	Section	Comments/Discrepancies	Basis	Recommendation
11	6	I.B.1. Table 2 Requirements for Outfall 004	The proposed monitoring requirements for temperature and pH are more stringent than current requirements and will require procurement of new equipment. The permittee is not aware of any basis that would justify this new requirement. There are no sources that would be likely to affect these parameters significantly nor does Appendix B provide a basis for increased monitoring.	See EPA letters dated April 2, and 23, 1999, (see attached .pdf file). These letters acknowledged that there had been some omissions and typographic errors in the recently reissued permit.	Leave monitoring for temperature and pH at the current frequency and sample type. (Monthly grab sample for pH and weekly grab sample for temperature.) If this is not acceptable, allow a phase in or transition period to enable procurement of equipment and training of personnel.
12	7	I.B.9	Extra space is provided in 'permitte e'.	Improve clarity.	Delete extra space.
13	7	I.B.9	MDL and ML are not spelled out.	Improve clarity	Spell out MDL and ML the first time they are used.
14	7	I.C.	The Whole Effluent Toxicity (WET) Testing Requirements are costly and results could be impacted by current operational adjustments to meet nitrite effluent limits. (See footnote 1). No basis for adding this test is identified.	Current plans call for this facility to be shut down by the end of September.	It is requested that this requirement be deleted. If this is not acceptable, allow the requirement to be phased in with the first monitoring to be performed no sooner than the winter of 2009-2010.
15	9	I.C.4.a	Floppy disks are becoming less common and use of other electronic media may be more suitable.	Flexibility in implementation	Change to read "...test data electronically for entry into..."
16	10	II.A	Due date for completion of QA Plan is not consistent with Fact Sheet (See Permit comment 3)	Inconsistent with Fact Sheet, section VII.A.	Make the permit and the fact sheet consistent.
17	11	II.B	The 300 Area TEDF is scheduled for permanent shutdown by the end of September 2009. Preparation of this BMP for outfall 001 would not be an effective use of resources.	Limited duration for use of this outfall.	Eliminate this requirement or defer the completion date to January 2010 for Outfall 001.

No.	Pg	Section	Comments/Discrepancies	Basis	Recommendation
18	11	II.B	The introductory paragraph for section II.A. clearly identifies the purpose and schedule for the QA plan. A similar introductory paragraph may be helpful for II.B. See also comment 4.	Improve clarity	Add text similar to first paragraph of section II.A
19	12	II.B.4.b	References non-existent section II.C	Incorrect reference	Use correct reference (II.B.3.?)
20	13	II.B.7.c	References non-existent section D.3	Incorrect reference	Correct the reference (II.B.5)
21	13	III.A, second paragraph, last sentence	Incorrectly references I.A	Incorrect reference	Correct the reference (I.B.)
22	14	III.C.	Attachment K of the permit application requested approval of additional analytical methods to meet the monitoring requirements for Outfall 001.	No response to this request has been received to date.	Please provide response regarding alternative analytical methods.
23	15	III.G.1 and III.G.2	Formatting of section III.G.2, does not match previous permit conditions and appears to be in error. Paragraph 2., a., b., and c. seem to be four types of noncompliances that should be reported and thus should be subsets under G.1. Incorrectly references III.G.2	Formatting error.	All four items in III.G.2 (the sentence and three bullets mentioned) should all be listed as separate bullets or items under III.G.1
24	15	III.H, last sentence		Incorrect reference	Correct reference (II.G.3)
25	19	IV. F.3.	Paragraphs b), c), and d) should be subsets under a); e.g. a)1), a)2), etc. Paragraph d) should be changed to b)	All these conditions address when a bypass is acceptable.	Correct format error with numbering.
FACT SHEET					
1	1		See Permit comment 2 regarding contractual relationship between CHPRC and DOE.		After ...(CHPRC), add “a Contractor of the US...”.
2	5	II.1	The Hanford sewer system would be more correctly identified as the 300 Area Process Sewer.	Improve clarity	Change“ ...from acceptance at 300 Area TEDF” or “...discharge to 300 Area process sewer system.”

No.	Pg	Section	Comments/Discrepancies	Basis	Recommendation
3	5	II.2	Last sentence beginning “Planning is underway to...” does not clearly convey the DOE’s intent to shut down the 310 TEDF and that all waste streams piped to 310 TEDF would be routed to the City of Richland POTW.	Planning applies to all waste streams currently discharging to 310 TEDF.	Move this sentence up into first paragraph in “300 Area” section.
4	5	II.2	Current discharges will be routed to the City of Richland POTW, not West Richland.	Improve accuracy	Change West Richland to Richland and identify the correct permit number (WA-002041-9).
5	6	II.3.	329 is not a maintenance shop. 350 and 329 discharge to Richland, not West Richland.	Improve accuracy	Delete “Maintenance shop discharges from the” and change West Richland to Richland.
6	6	II. 100 Area first paragraph	First sentence does not clarify that water source includes service (raw) water.	To clarify the sources of influent	Add “and service” between potable and water.
7	6	II. 100 Area first paragraph	The description starting with “Fire suppression wastewater, leaks....” could be clarified by additional language.	Improve clarity	Revise to read “Fire suppression wastewater, major leaks and line breaks are unintentional and non-routine discharges typical of what is considered to be upset conditions that do not...Hanford has never had upset conditions as a result of fire , line breaks or major leaks that resulted...the discharge includes raw water returned to the Columbia River...”

No.	Pg	Section	Comments/Discrepancies	Basis	Recommendation
8	6	II. 100 Area First paragraph	To add clarity, it should be noted that the fish rearing described in appendix A are no longer used.	Improve clarity	Add last sentence “It is noted that fish rearing activities noted in Appendix A have ceased from the time the permit application was submitted.”
9	8	II. Table 3	Table 3 does not accurately represent the sampling frequency and type of sampling from the current permit for temperature and pH for Outfall 004.	Letter R. F. Smith (EPA) to J.E. Rasmussen (DOE-RL) dated April 2, 1999 (reissuance of NPDES permit) and letter R. R. Robichaud (EPA) to J. Kapadia (Fluor Hanford) dated April 23, 1999)	The following changes in effluent limitations in Table 3 should reflect the following to be in line with the current permit: issued in 1999: Temperature should reflect a sampling frequency of “weekly” vs. “continuous” . Temperature should reflect a type of sampling of “grab” vs. “recording” . pH should reflect a sampling frequency of “monthly” vs. “continuous” pH should reflect a type of sampling of “grab” vs. “continuous” .
10	11	III. B 4 th paragraph	Discharges are being routed to Richland, not West Richland.	Correct location.	Change “City of West Richland” to City of Richland.
11	11 12	IV.B Table 6	Permit comments 7, 8, and 9 regarding Table 1 apply here to table 6. (missing references to footnotes, request for higher nitrite limit)		

No.	Pg	Section	Comments/Discrepancies	Basis	Recommendation
12	12	IV.B Table 7	The footnotes and Acute WET limit at the end of Table 7 seem to have been inadvertently added to Table 7 instead of Table 6.	Inaccurate or conflicting information	Remove the Acute WET limit and footnotes from Table 7 and move them to Table 6.
13	12	IV.B Table 7	Comment 11 on the draft permit regarding increased monitoring for temperature and pH also applies here.		
14	12	IV.B Table 7 footnotes	Footnote 3 references Part III.G, and Footnote 4 references Part I.B. These references appear to be to the Permit, not the Fact Sheet.	Incorrect or misleading reference	Change Footnote 3 to reference Part III.G of the <u>permit</u> and footnote 4 to reference Part I.B of the <u>permit</u> .
15	13	IV. B Table 8	The type of sampling for flow and for Total Suspended Solids is not indicated.	Missing information	Add type of sampling (total for flow and grab for TSS) to be consistent with the draft permit.
16	13	IV.C	Comment 17 on the draft permit (preparation of BMP for facility proposed for shutdown) also applies here.		
17	14	V.B 5 th paragraph	The word “analyses” should be the singular form “analysis”.	Grammatical or typographical error	Revise to read “...a new reasonable potential analysis not available...”
18	18	VII.A	The schedule for implementation of the QA plan (180 days) differs from the requirement of the draft permit (90 days). See comment 3 on the draft permit.	Inconsistent with draft Permit, Schedule of Submissions	Make the permit and the fact sheet consistent.
19	18	VII. B	An Operation and Maintenance Plan is not identified in the draft permit. See comments 4 and 17 on the draft permit.	Inconsistent with draft Permit, Schedule of Submissions	Make the permit and the fact sheet consistent.
20	22	Appendix A First Table	The 327 boiler annex is no longer functional and no longer discharges to the 300 area process sewer.	Updated information	Delete 327 from fourth column listing of boiler annexes.
21	22	Appendix A Second Table	Infrequent/Out-Time appears to have a typographical error. ‘One’ rather than ‘Out’?	Typographical Error	Change out to one.

No.	Pg	Section	Comments/Discrepancies	Basis	Recommendation
22	23	Appendix A Known Storm Collection Boxes	Stormwater Collection Boxes near 321 and 3701U buildings no longer discharge to the 300 area process sewer.	Updated information	Delete 321 and 3701U(4) from the storm collection box listing on page 23.