Crysler, Ruby

From: Crysler, Ruby
Sent: Thursday, December 21, 2017 9:48 AM
To: KNIGHT, COLE D GS-12 USAF HAF 22 CES/AFCEC/CZOM; Wight, Brian (brian.wight@urs.com); Mark D. Wichman (mark.d.wichman@usace.army.mil); Kelly Peterson [KDHE]
Subject: FW: McConnell AFB PBR: RTC: Multiple Documents
Attachments: OW576_DFT_RFI ADD_USEPA RTC.docx; OW037_DFT REV1_RFI_USEPA RTC.docx; ZZ047 ZZ048 ZZ049_DFT_REM PROP TM_USEPA RTC.docx; SS544_FNL_RFI_RTCs (USEPA).docx

Cole,

The attached responses are acceptable with exception to the following:

Site OW037

Section 6 and Appendix H: Risk assessments should include all valid data. This issue has been discussed multiple times. Exposure point concentrations are calculated for constituents with enough detections. Therefore, data for constituents are looked at in totality, rather than focusing on just one concentration at a particular point in time. Constituents that are only detected once are also looked at in context with the whole site. To my knowledge, there have been no instances at McConnell sites where single detections have caused risk ranges or HI's to be exceeded. It is unclear why there is reluctance to use direct push data in addition to monitoring well data.

Section 7.2: The response states that the following recommendation will be added to the report text: *"Additional investigative sampling is recommended to delineate TPH-MRH below the KDHE RSK value."* The text should be revised to indicate that additional investigative sampling for TPH-MRH is recommended. The scope of work will be determined during future scoping meetings.

Site SS544
Section 2.3: The report text should identify all locations where microbial samples were collected.

Ruby Crysler
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From: Wight, Brian [mailto:brian.wight@aecom.com]
Sent: Monday, December 04, 2017 2:35 PM
To: Crysler, Ruby <Crysler.Ruby@epa.gov>
Cc: Kelly.Peterson@ks.gov; Mark D. Wichman (mark.d.wichman@usace.army.mil) <mark.d.wichman@usace.army.mil>; Sansom, Andrea NWO <Andrea.Sansom@usace.army.mil>; KNIGHT, COLE D GS-11 USAF AMC 22 CES/CEAN (cole.knight@us.af.mil) <cole.knight@us.af.mil>; michaeld@ageiss-inc.com; Burke, Joel <joel.burke@aecom.com>; GUTIERREZ, NEYDA V CTR USAF AFMC AFCEC/CZR <neyda.gutierrez.1.ctr@us.af.mil>; Krause, Michael <michael.krause@aecom.com>; Mowan, Ryan <ryan.mowan@aecom.com>; Gangelhoff, Dustin

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<dustin.gangelhoff@aecom.com>; Bergantzel, Vanessa <Vanessa.Bergantzel@aecom.com>
Subject: McConnell AFB PBR: RTC: Multiple Documents

Ruby,

Our responses to your comments on the documents listed in the table below are attached for your review and approval. If possible, please provide your approval on or before 11 December 2017.

Responses to EPAs comments on Draft RFI Addendum	OW576: Pesticide Disposal Site
Responses to EPAs comments on Draft Rev 1 RFI	OW037: POL Tank 16
Responses to EPA's comment on Draft Remedy Proposal TM	ZZ047: MAFB 104 - Hardfill Area 1 ZZ048: MAFB 105 - Hardfill Area 2 ZZ049: MAFB 108 - Old Base Lake Hardfill Area
Responses to EPA's comments on Final SWMU 207 RFI Report	SS544: SWMU 207

Thanks

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TECHNICAL REVIEW COMMENTS
McConnell AFB PBR
W9128F-13-C-022
OW576
Draft OW576 RCRA Facility Investigation Addendum Report
McConnell Air Force Base, Wichita, Kansas
Date Comments Prepared: 18 October 2017

Name: Ruby Crysler	**Phone Number: (913) 551-7409**
Organization: USEPA	**E-mail Address: crysler.ruby@epa.gov**

Specific Comments:

Item	Section	Page	Para	Comment	A, D, E, or NFD	Response
1.	3.2.4	3-2		The text should indicate why groundwater samples were not analyzed for toxaphene. Section 2.3 states that this is one of the constituents with elevated method detection limits during the RCRA facility investigation.	A,E	Toxaphene analysis was not completed due to historical accounts of the types of pesticides discarded at the site. The paragraph will be have two bullet points stating specifically why certain pesticide analyses were not completed as seen below. New information is provided in the first bullet. **Section 3.2.4** will be edited to read, "*.....following organochlorine pesticides: aldrin, dieldrin, heptachlor, heptachlor epoxide, and technical chlordane.* *Although technical chlordane was not initially considered a COPC, it was added to the list of analytes based on communications with the USEPA. Other pesticides (from the list of organochlorine pesticides) were not considered COPCs based on the following:* • *Historical accounts of the types of pesticides discarded at the site, specifically pesticides used for controlling termites, as well as malathion, were reportedly disposed of at the site. As shown in Table 10-2 in the* OW76 RFI Work Plan, *alpha-BHC and toxaphene are not and were not used for controlling termites. Technical-grade lindane (which contains alpha-BHC) was sometimes used as a termiticide, but was banned for production and use in the United States in 1976 and typically persists in the environment for approximately 10 years (ATSDR 2005, National Research Council Committee on Toxicology, 1982). Based on site history, the only pesticides that were disposed of at the site were used for termite control. Therefore, samples were not analyzed for alpha-BHC or toxaphene.* • *Certain pesticides were not being detected above USEPA residential tap water RSLs during the previous RFI (HDR 2006), where detection limits were less than these RSLs.* *Sample dates.....*"
2.	4.1.2	4-1		The section states that groundwater flow direction was inferred based on water level measurements from monitoring wells. The text should clarify if this flow interpretation is consistent with the base-wide conceptual site model.	A	The second to last sentence of **Section 4.1.2** will be edited to read, "*General groundwater flow direction appears to be southerly and is consistent with the base wide conceptual site model.*"
3.	Table 4-2			The table, which is titled OW576 Summary of Qualifications, appears to belong in Section 5 (Laboratory Data Review) rather than Section 4 (Investigation Results). The table should be moved in the report.	A	The table number will be edited to be "*5-1.*" The table references in the table of contents and **Section 5.3** will also reflect the change.
4.	Section 6	6-1		The fifth paragraph on the page states that results from the previous RFI were compared to non-residential Tier II Risk-Based Standards for Kansas or the EPA Regional Screening Levels for direct exposure to soil. Per Appendix D of the RFI report, results were screened against the EPA Region 9 Preliminary Remediation Goals, not the EPA RSLs. The text should be corrected.	A	The first sentence of the fifth paragraph is misleading and will be edited to read, "*While completing this RFI Addendum, data from the previous investigation (HDR 2006), were compared to current residential RSKs and USEPA RSLs for direct soil exposure and there were no exceedances.*"
	END					

A= agree D=disagree E = explanation NFD=needs further discussion

TECHNICAL REVIEW COMMENTS
McConnell AFB PBR
W9128F-13-C-022
OW037
Draft OW037 RCRA Facility Investigation Report
McConnell Air Force Base, Wichita, Kansas
Date Comments Prepared: 18 October 2017

Name: Ruby Crysler	**Phone Number: (913) 551-7409**
Organization: USEPA	**E-mail Address: crysler.ruby@epa.gov**

Specific Comments:

Item	Section	Page	Para	Comment	A, D, E, or NFD	Response
1.	Figure 2-2			The location of Site OW037 shown in this figure differs from the location shown in Figure I2 of the RCRA facility investigation work plan. The location should be verified and corrected, if necessary, in this RFI report.	E	The correct location is shown on **Figure 2-2** of this RFI Report. The RFI WP location is incorrect. Replacement figures for the RFI WP will be transmitted with the next version of this RFI Report.
2.	3.4	3-3		The section states that the tank was removed and transported to a materials recovery center. The text should indicate whether there were any contents in the tank at the time of removal. Additionally, Section 2.2 states that the tank has been inactive since the removal of POL Tank #16. If so, please indicate why influent line water flowed into the tank excavation and where this water may have come from.	A,E	The following sentence will be added as sentence three in the first paragraph of **Section 3.4** on page 3-3, "*The tank was verified to be empty at the time of removal.*" The site history is taken from Base records which show the OWS as being inactive/abandoned. It is not known why the inactive influent line had water remaining or the precise origin of the water. It is possible the water remained in the line after becoming inactive or that the line had/has a hole and groundwater leaked into the line.
3.	Figure 3-1			The report should explain why the locations of sampling points DP01 and DP02 have been shifted from what was originally proposed in the RFI work plan.	E	Proposed locations in the work plan are estimated. Actual sample locations are surveyed and shown on figures. Sample locations were within a few feet of the proposed locations and are not expected to impact results, especially considering the additional samples which were collected around the OWS and the excavation samples collected to confirm any impacted soil was removed.
4.	4.2.4	4-3		The second and third paragraphs discuss the detection of 1-methylnaphthalene in DP05 and attribute its presence to turbidity in the sample. Turbidity data, if available, should be provided to substantiate this conclusion.	A	Turbidity was not measured from direct push groundwater samples. The first sentence of third paragraph will be edited to read, "*Although turbidity readings were not measured during direct push groundwater sampling, higher turbidity is typically encountered in groundwater from direct push soil borings.*"
5.	4.2.5	4-4		The section concludes that detections of trichloroethylene in monitoring well OW037-MW03 are attributed to TCE contamination from Site SS001. Well OW037-MW03 is north of the main TCE plume, and TCE was also detected at other locations at Site OW037 (OW037-MW01 and DP01). The presence of TCE at these locations should be discussed as well. The section further states that the interim measure being implemented at Site SS001 will address TCE in OW037-MW03. No injections have been performed around the monitoring well, and this well is not included in the performance monitoring program for Site SS001. Please explain how it will be verified that TCE at OW037 has been addressed with Site SS001.	A	The fourth sentence of paragraph one in **Section 4.2.5** will be edited to read, "*No other groundwater samples had detections of TCE, except at OW037-DP01 and OW037-MW01, which did not exceed the USEPA MCL or KDHE RSK.*" The following sentence will be added to end of the last paragraph in **Section 4.2.5**, "*OW037-MW03 has also been added to the SS001 performance monitoring program.*" Additional injections may be required if concentrations remain above screening levels, and the need for such injections will be evaluated under SS001. The latest sample from October 2016 shows that MW03 is below the screening level of 5 ug/L.

A= agree D=disagree E = explanation NFD=needs further discussion

Item	Section	Page	Para	Comment	A, D, E, or NFD	Response
6.	Section 6 and Appendix H			Not all groundwater constituents of potential concern have been included in the risk assessment. The section appears to exclude contaminants detected in direct push groundwater samples. The EPA has repeatedly commented that direct push groundwater data should be included in risk assessments unless the data have been rejected for quality control non-conformance. The risk assessment should be revised to include all groundwater COPCs. Updated risk estimates should be calculated.	E	Further discussion regarding this topic will need to take place during periodic progress meetings to determine the proper risk assessment methodology. All previous risk assessments have used direct push groundwater only if there is no monitoring well data available.
7.	7.1.2	7-1		See Comment 5 regarding the conclusion that remedial injections at Site SS001 will address TCE at Site OW037.	A	The following will be added as the third sentence to the last paragraph in **Section 7.1.2,** "*OW037-MW03 has been added to the SS001 performance monitoring program.*"
8.	7.2	7-2		The section should be revised to provide some recommendations for a path forward at Site OW037.	A	The following will be added to the end of **Section 7.2**, "*Additional investigative sampling is recommended to delineate TPH-MRH below the KDHE RSK value.*"
	END					

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TECHNICAL REVIEW COMMENTS
McConnell AFB PBR
W9128F-13-C-022
ZZ047, ZZ048, ZZ049
Technical Memorandum, Draft Remedy Proposals, Solid Waste Management Unit 104 (Hardfill Area 1/Site ZZ047), SWMU 105 (Hardfill Area 2/Site ZZ048) and SWMU 108 (Old Base Lake Hardfill Area/Site ZZ049)
McConnell Air Force Base, Wichita, Kansas
Date of Comments: 10/25/2017

Name: Ruby Crysler	**Phone Number: 913-551-7409**
Organization: USEPA	**E-mail Address: crysler.ruby@epa.gov**

General Comments: A final remedy was selected from SWMU 105/Site ZZ048 during the previous round of remedy proposals (September 2017). Therefore, sections of this document applicable to that site were not reviewed. **URS Response:** Agree/Noted.

Specific Comments:

Item	Section	Page	Para	Comment	A, D, E, or NFD	Response
1.	3.2	2		The text indicates that the following corrective action objective has been established for Sites ZZ047, ZZ048, and ZZ049 in order to actively manage the sites: reduce/prevent current and future receptor exposure to site media. The CAO should be further refined to indicate that the goal is to prevent current and future receptors from being exposed to site soils and groundwater. Contaminants have been detected in these media above risk-based screening levels and/or background.	A	"Site media" will be changed to "site soil and groundwater" in all instances.
2.	7.1	6		With respect to institutional controls, the second paragraph states that the sites will be routinely monitored and inspected from initial implementation through termination. This statement contradicts the following paragraph which states that the ICs will remain in effect indefinitely. This inconsistency should be addressed.	A	The first sentence of paragraph two in **Section 7.1** will be edited to read, "*...from implementation through the termination date, which is unknown.*" The amount of time the ICs will remain in place is indefinite, but it is possible that they may be terminated in the future.
3.	8.2	7		The section indicates the proposed remedy will not attain media clean-up standards, which are promulgated drinking water standards for constituents of concern that have contaminated site groundwater. The section should note that arsenic was detected in soil at SWMU 104/Site ZZ047 at concentrations above the EPA and Kansas Department of Health and Environment screening levels and background. The landfill cap will prevent exposure to contaminated soil as well. See comment 7.	A	The second paragraph of **Section 8.2** will be edited to read, "*The proposed remedy will not attain media cleanup standards but will reduce exposure to all site soil and groundwater, including any soil at ZZ047 that has had detections of arsenic above media cleanup standards.*"
4.	9.2	9		The section states that an alternative remedial pathway will be assessed if the remedy is not effective in achieving the CAO or if site conditions change (i.e., discovery of new site information, a need to alter IC boundaries or change in site use). Please note, per Section 3.6 of the *Final Facility-wide Institutional Control Implementation Plan* there is a notification and concurrence process that must be followed prior to implementing changed in land use. Additionally, Permit Condition II.17.3 states that the IC Implementation Plan will be incorporated into the Base Master Plan and be enforceable through the Base Master Plan and the Part II Permit.	A	Any procedures to alter the remedial pathway will follow the proper processes outlined in the ICIP, RCRA Part II permit, and the Base Master Plan.
5.	10.0	10		The first paragraph indicates the RCRA facility investigation evaluated risk to the [then-]current (2006) construction worker scenario and concludes that future site risk under this scenario is not expected to change. If future changes in site use are proposed, additional receptors may need to be evaluated (e.g. , indoor site worker, outdoor site worker).	A	With the proposed remedy limiting exposure for all receptors to site soil and groundwater, risks for all receptors become negligible. Any changes that would affect the proposed remedy and exposure to receptors will cause for re-assessment of risk for all potential receptors.

A= agree D=disagree E = explanation NFD=needs further discussion

Item	Section	Page	Para	Comment	A, D, E, or NFD	Response
6.	Table 1			The soil arsenic concentrations reported in the table are incomplete. The original RFI report used arsenic results from Method 200.9 analysis in the tables, rather than the Method 6010B results which are also included in Appendix B.2 of the report. Method 200.9 is an analytical method intended for ground water, surface water, drinking water, storm runoff, industrial and domestic wastewater. The Method 6010B results, which are still valid data, ranged from 10.54 to 46.42 milligrams per kilogram arsenic. These concentrations exceed risk-based screening levels and background. However, the proposed remedy will prevent exposure to contaminated soil at SWMU 104/Site ZZ047.	A	All tables will be updated to include both results for soil data (Method 200.9 and 6010B).
7.	Table 8			The purpose of this table is unclear. Please provide an explanation.	E	As noted in the last paragraph of page 5 and first paragraph on page 6, **Table 8** shows the input values used to calculate wet sediment RSLs for comparison to sediment samples collected at ZZ049.
	END					

A= agree D=disagree E = explanation NFD=needs further discussion

TECHNICAL REVIEW COMMENTS
McConnell AFB PBR
W9128F-13-C-022
SS544 (SWMU 207)
Final SWMU No. 207 (SS544) RCRA Facility Investigation Report
McConnell Air Force Base, Wichita, Kansas
Date of Comments: 27 October 2017

Name: Ruby Crysler	**Phone Number: (913) 551-7409**
Organization: USEPA-Region 7	**E-mail Address: crysler.ruby@epa.gov**

General Comments:

None

Specific Comments:

Item	Section	Page	Para	Comment	A, D, E, or NFD	Response
1.	Section 1.5	Page 1-5		The first paragraph discusses hard, mineralized water and yields of less than two gallons per minute at the Base, citing 1965 reports. Historical reports may have referred to hard mineralized water; however, limited sampling of groundwater was performed during that time. A significant amount of groundwater data has since been collected from the upper water-bearing unit at many sites across the base, and data from this unit do not indicate that total dissolved solids are present in excess of 10,000 parts per million, which is the Safe Drinking Water Act potability standard. Additionally, no yield calculations have been performed on groundwater at this site. This information is not accurate and should be removed from the report.	A	The last three sentences of the first paragraph of Section 1.5 on page 1-5 will be removed. The 1965 references will be removed from Section 8.
2.	Section 2.3	Pages 2-8 and 2-9		The work plan indicated that two microbial samples would collected from MW-46S and MW-46D. Text in the section states that insufficient water was available from MW-46D and that a sample was collected from MW-44S. The section should clarify whether the other microbial sample was collected, and if so, identify the well it was collected from. Additionally, Section 2.3 identifies only one missed biomarker sample (MW-46D) and one replacement sample (MW-44S). The text should discuss the other missed biomarker sample (MW-46S) and clarify whether a second replacement sample was collected at MW-44D. If no replacement sample was collected at MW-44D, an explanation should be provided.	E	The RFI Work Plan indicated groundwater samples for qPCR targets would be collected from three monitoring wells, MW-180, MW-181, and MW46. Since MW46 was installed as a nested pair, only the deep monitoring well (MW46D) was selected for sampling for qPCR targets. However, during sampling of MW46D, insufficient water was available to collect all analyses, so the sampling for qPCR targets was moved to monitoring well MW44S (one of two nested monitoring wells installed at planned location MW44). Therefore, the overall number of planned samples to be collected for qPCR targets remained the same at three.
3.	Table 3-4			The table still indicates that investigation data were screened against June 2015 EPA Regional Screening Levels for tap water. The RSL reference should be updated to the June 2017 values, and RSLs for several constituents should be updated in the tables as well (e.g., 1,1-dichloroethane, 1,2,4-trichlorobenzene, trans-1,2-dichloroethene, etc.)	A	The USEPA RSL reference and values will be updated to the most current version (June 2017).
4.	Section 3.4.2	Page 3-6		The reference to Figure 3-10 at the end of the paragraph should be corrected to cite Figure 3-11 for well screen information.	A	The figure reference will be changed as recommended.

A= agree D=disagree E = explanation NFD=needs further discussion

Item	Section	Page	Para	Comment	A, D, E, or NFD	Response
5.	Section 6.1	Page 6-1		The EPA's comments regarding potential vapor intrusion exposure to occupants of the current Control Tower have not been satisfactorily addressed. Additional assessment of the vapor intrusion pathway, using multiple lines of evidence, is warranted here.	A	The following paragraph will be added between the first and second paragraphs of Section 6.1, "*A new Control Tower is currently in the process of being constructed to replace the existing Control Tower at McConnell AFB and is currently scheduled for completion in early 2019. The new Control Tower will include installation of an engineered vapor barrier in its foundation. While the new Control Tower is being constructed, the existing Control Tower is to remain in use. A quantitative evaluation of the vapor intrusion pathway for the existing Control Tower, including the calculation of the risk associated to indoor workers via the vapor intrusion pathway, will be provided in the risk assessment prepared under separate cover (see* ***Section 6.2****).*"
	END					

A= agree D=disagree E = explanation NFD=needs further discussion