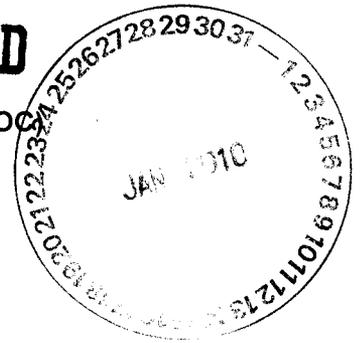




DEPARTMENT OF THE AIR FORCE
27TH SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON (AFSOC)
CANNON AIR FORCE BASE NEW MEXICO

ENTERED



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JAN 22 2010

Ms. Patricia Stewart
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East – Building 1
Santa Fe NM 87505-6063

Dear Ms. Stewart

Cannon Air Force Base, NM is responding to comments in a letter dated September 3, 2009 from the New Mexico Environment Department (NMED) giving Notice of Disapproval (NOD) for the Draft Final Work Plan for Final Closure of Solid Waste Management Units 70 and 71, Cannon AFB, New Mexico, June 2009. Please reference the Attachment for a detailed explanation of each comment.

If you have any questions, please contact Mr. Hugh G. Hanson, Natural Resources Management Element, at 575- 784-6391.

Sincerely

RONALD A. LANCASTER, YC-03

cc:
NMED (D. Cobrain) w/o Attachment
EPA Region 6 (Bob Sturdivant) w/o Attachment

Document ID: NWI-5032-002		Document Title: Draft Final Work Plan for Final Closure of Solid Waste Management Units 70 and 71.			Revision ID:	DC Number: NWI-5032-002
Comments resolved by: Tom Matzen North Wind, Inc		Date: 15 Jan 10	Reviewed and accepted with no further comments. <input type="checkbox"/>	Signature of reviewer accepting comment resolution		Date:
Reviewer's Name: NMED (505) 476-6000		Date Reviewed: 3 Sept 09	Return Comments To:			Comments Due By:
Item No.	Page No./Section	*	Review Comment	Comment Resolution**		
General	General		The permittee referenced NMED's Soil Screening Levels (SSLs) Revision 4.0, June 2006. NMED has recently published Revision 5.0, August 2009. The permittee must use the more recent version of NMED SSLs	Reference has been corrected to refer to the most recent NMED SSLs. Also, Appendix A has been changed to include Revision 5 of the NMED SSLs.		
1	Sec 2, P 2		<p>The Work Plan references two environmental reports associated with SWMU 70: <i>Annual Evaluations of Bioventing Soil Remediation at SWMU 70, Analytical Results for Samples Collected September 22-23, 1999</i> and <i>Annual Evaluations of Bioventing Soil Remediation at SWMU 70, Analytical Results for Samples Collected September 10-11, 2002</i>. The NMED has located two additional reports: <i>Annual Evaluations of Bioventing Soil Remediation at SWMU 70, Analytical Results for Samples Collected September 21-22, 2000</i> and <i>Annual Evaluations of Bioventing Soil Remediation at SWMU 70, Analytical Results for Samples Collected August 21-22, 2001</i>. The titles of these reports indicate that annual evaluations were conducted since the soil gas monitoring wells were installed in 1994. The Work Plan did not summarize the results of analyses conducted annually since the wells were installed. To assess the current levels of contamination present at SWMU 70, data collected during annual evaluations must be discussed in the Work Plan.</p> <p>The Permittee must: 1) present all historical data from all relevant</p>	<p>To date, Cannon AFB has been unable to locate copies of the referenced annual bioventing system reports. These reports likely have been archived. Cannon AFB is, at this time, working on revising and upgrading its administrative record. Once the references are located the analytical data will be added to the Work Plan in a tabular format.</p> <p>The USGS has been contacted and may be able to provide the analytical data from the soil vapor sampling.</p>		

		environmental reports in the revised Work Plan; and 2) present the data in tabular format to reveal trends in concentrations of volatile organic compounds (VOCs) over time.	
2	Section 2.1, Page 2	<p>This section describes SWMU 70 as consisting of a 2,000 gallon underground tank (UST) that contained petroleum products received from wash water effluent. However, the Permittee's <i>RCRA Facility Investigation (Phase I)</i> dated February 1994 describes the SWMU as a two-compartment underground Oil Water Separator (OWS) consisting of a 50-gallon compartment (measuring about 1.5X2 ft and extending about 6 ft below the ground surface) and a detached 220 gallon oil storage tank (strapped to a 4 X 7 foot concrete pad that was constructed about seven feet below the top of the concrete sidewalk).</p> <p>The Permittee must resolve the discrepancy in the description (a 2000 gallon UST versus an OWS with a detached 220 gallon tank) and revise the Work Plan to accurately describe SWMU 70 and its history (e.g., when the components were removed; when and how the Bioventing Pilot was installed and implemented; subsequent annual sampling and analyses per Comment 1).</p>	<p>System description discussion has been corrected.</p> <p>To date, Cannon AFB has been unable to locate copies of any reports regarding the removal of the OWS at Bldg 326 (SWMU-70). These reports likely have been archived. Cannon AFB is, at this time, working on revising and upgrading its administrative record. If any reports regarding the removal of the system can be located all relevant information will be added to the Work Plan.</p>
3	Table 1, Page 3	Tabulated data in Table 1 includes B, C, and J qualifiers. The Permittee must provide footnotes describing the qualifiers.	Appropriate footnotes have been added.
4	Section 3.3.5, Page 6	<p>The Permittee states that data will be screened against the risk-based concentrations for residential human health and ecological screening levels and that the construction worker risk scenario also may be evaluated prior to remedial activities.</p> <p>The contaminants of potential concern (COPCs) at the site include VOCs. Inhalation of indoor air via vapor intrusion is likely a complete pathway and must also be addressed. The Permittee must consult the US EPA's 2002 Draft Guidance for Evaluation the Vapor Intrusion to</p>	Risk screening for inhalation of indoor air was not included in the original scope of work for this project. Cannon AFB will have to request additional funding and modify the scope of

		<p>Indoor Air Pathway from the Groundwater and Soils (Subsurface Soil Vapor Intrusion Guidance).</p> <p>In addition, the Permittee describes developing media-specific statistical exposure point concentrations (EPCs) for any chemicals that exceed residential and/or ecological thresholds. The Permittee must compare maximum concentrations or upper confidence levels (UCLs) to NMED Soil Screening Levels (SSLs) for the residential, industrial/occupational and construction worker scenarios. If screening values for a specific chemical are not listed in the NMED SSLs, the Permittee must refer to the US EPA Regional Screening Levels. If UCLs are used for comparison, they must be generated using an adequate number of samples. The permittee must also conduct an ecological risk screening or provide justification as to why such screening is not necessary.</p>	<p>work in order to include the requested task.</p> <p>Maximum concentrations will be compared to the NMED SSLs or the US EPA Regional Screening Levels as appropriate. Text stating this has been added to the Work Plan</p> <p>Analytical results will be compared to referenced guidance.</p> <p>Ecological risk screening will be addressed. Text stating this has been added to Section 3.3.5.</p>
5	Table 2, Page 7	The Permittee does not identify the acronym "VOCs" in the table. The Permittee must include the definition of VOCs in the footnotes.	Appropriate footnote has been added.
6	Sec 5.1.1, Page 8	<p>A. The Permittee states that soil vapor samples will be collected from the existing vapor sample ports. The Permittee further states, "Vapor sample analytical results will be reviewed and a final determination will be made if further drilling and soil sampling is necessary. If soil vapor sampling indicates that no soil contamination remains at the SWMU-70 area, then it may not be necessary to collect soil samples."</p> <p>A determination of whether or not the vertical and horizontal extent of contamination has been delineated cannot be made based on the information provided. Furthermore, results of soil vapor sampling likely will not indicate whether or not soil contamination remains at SWMU-70. As of 2001, concentrations of toluene, ethylbenzene, xylene and volatile compounds were increasing in Monitoring Point Wells B and C. The Permittee must examine and report annual</p>	<p>A. To date, Cannon AFB has been unable to locate copies of the referenced annual bioventing system reports. These reports likely have been archived. Cannon AFB is, at this time, working on revising and upgrading its administrative record. Once the references are located the analytical data will be added to the Work Plan in a tabular format.</p> <p>The USGS has been contacted and may be able to provide the analytical data from the soil vapor sampling.</p>

		<p>evaluations of bioventing soil remediation for the years 1995 through the current year (see Comment 1).</p> <p>B. The Permittee proposed seven soil borings to 20 ft below ground surface (bgs), with two soil samples from each boring "if it is deemed necessary to collect subsurface soil samples." According to <i>Annual Evaluations of Bioventing Soil Remediation at SWMU-70, Analytical Results for Samples Collected August 21-22, 2001</i>, concentrations of ethylbenzene, xylene and volatile compounds in Monitoring Point Wells B and C were above concentrations reported in 2000 at the 50 ft bgs pore gas sample ports. The NMED considers boring to 20 ft bgs inadequate to determine the vertical extent of contamination at SWMU-70.</p> <p>Further, the Permittee provided Figure 2 (page 10) to illustrate proposed locations of the seven soil borings, but provided no justification for the selection of locations. The Permittee must revise the Work Plan to describe how the vertical and horizontal extent of contamination will be determined. The Permittee must take step-out samples to define the lateral extent of contamination. To define the vertical extent, the Permittee must, at a minimum, collect samples to five feet below the deepest detected contamination based on field screening.</p> <p>C. In a letter dated March 7, 1994, the EPA stated that the vertical and horizontal extent of contamination had not been determined at SWMU-70 and suggested continuous sampling be performed during drilling to install the three Monitoring Point Wells and one Vent Well.</p> <p>With the response to this NOD, the Permittee must provide a copy of the report documenting the results of continuous sampling of the borings drilled during installation of the Bioventing Pilot system that was installed in 1994.</p>	<p>B. The existing scope for the project only has budget for 7 borings to 20 ft depth. Cannon AFB will have to request more funding for the project in order to modify the scope so that borings can be drilled to 115 ft (to equal the depth of the existing air injection well and soil vapor monitoring wells).</p> <p>C. To date, Cannon AFB has been unable to locate copies of any reports regarding the installation of the biovent system at SWMU-70. These reports likely have been archived. Cannon AFB is, at this time, working on revising and upgrading its administrative record. If any reports regarding the installation of the system can be located all relevant information</p>
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			will be added to the Work Plan
7	Section 5.1.2, Page 9	<p>The Permittee indicates that three soil borings will be installed to approximately 15 ft bgs and two soil samples will be collected from each boring at depths of approximately 8 and 15 ft. Figure 2 (on page 10) depicts the proposed locations of the borings. The Permittee did not discuss the history of the 2000 gallon underground storage tank (SWMU 71) that was removed in January 1991 and replaced with a new steel Oil/Water Separator (OWS). The unit is enclosed in a concrete vault that discharges to the sanitary sewer system. Based on the information provided, the NMED finds the placement of the three borings (on the north, west and south sides of the former position of the UST) to be inadequate to determine whether or not a release occurred from the former UST. The Permittee must revise the Work Plan to describe the rationale for placement of soil borings (e.g., based on the removal the former UST, the location of the new OWS unit, dimensions of excavations at the site during removal and construction).</p> <p>The Permittee must revise the Work Plan to describe how it will determine the vertical and horizontal extent of contamination. The Permittee must take step out samples to define the lateral extent of detected contamination. To define the vertical extent the Permittee must collect, at a minimum, samples to five feet below the deepest detected contamination based on field screening.</p>	<p>The existing scope of work specified three borings for SWMU 71. The existing project budget proposed is for 3 direct push borings to a depth of 15 ft. Step out borings are not specified in the existing scope. A boring cannot be installed on the east side of the location because of the presence of the concrete secondary containment for the JP-8 bulk tanks. Cannon AFB will have to request additional funding and modify the present scope of work to request any additional borings.</p> <p>These reports likely have been archived. Cannon AFB is, at this time, working on revising and upgrading its administrative record. If any reports regarding the removal of the system can be located all relevant information will be added to the Work Plan.</p>
8	Sec 5.3.1, Page 11	The Permittee indicated that pore gas samples will be submitted for VOC analysis using EPA Method TO-3. The Permittee must analyze for VOCs using the most updated EPA method, which is TO-15.	The soil gas sampling analytical method has been corrected.
9	Sec 5.3.2, Page 13	The Permittee stated that excavated soil will be stockpiled onsite, samples collected and soil replaced in the excavation. The Permittees may not return drill cuttings, decontamination water, or other investigation derived waste (IDW) to their point of origin. Rather, the Permittees must contain all IDW and characterize it to ensure proper	There will be no excavation work. Text has been corrected. Text has been corrected to indicate that drill cuttings, used PPE, de-con water and any other task related waste will be containerized in 55 gallon drums or a roll-off

		<p>handling.</p> <p>Regardless of whether or not the IDW is hazardous waste, the Permittee may not return contaminated environmental media to the point of origin because, by doing so, the Permittee will potentially create a landfill and change the hydraulic characteristics of the unit(s) which may provide a conduit for contaminant migration. All boreholes must be backfilled with cement, bentonite grout, neat cement or concrete to within two feet of the surface. The top two feet of the borehole may be filled with clean backfill.</p> <p>In addition, since jet fuel was not the only petroleum hydrocarbon passed through the Oil/Water Separator system, residential direct exposure standards of 200 mg/kg (TPH) for unknown oil should be used for comparison in accordance with Table 2b of NMED's TPH screening Guidelines (October 2006).</p>	<p>box and disposed of appropriately.</p> <p>Changed text to indicate that all borings will be abandoned by backfilling with bentonite chips or bentonite grout as required by State Regulation.</p> <p>In the original scope of work DRO was specified. Cannon AFB will have to request additional funding and modify the scope in order to analyze for the ORO.</p>
10	Sec 5.4, Page 14	<p>The Permittee stated that dedicated equipment intended for one-time use will not be decontaminated, but will be packaged for appropriate disposal. The permittee does not describe intended procedures for disposal of waste that will be generated during decontamination of reusable equipment.</p> <p>Drill cuttings, purge and decontamination water, personal protective equipment (PPE), and all other IDW must be containerized and characterized prior to disposal. Each container of waste generated must be properly labeled immediately following containerization. All IDW must be disposed of properly at an appropriate disposal facility. Descriptions of methods used to store, control, and transport each waste type and classification must be included in the investigation report.</p>	<p>All waste materials will be containerized (either in 55 gallon drums or a roll-off box) labeled properly and disposed of appropriately. Text has been added to indicate this. All waste disposal activities will be documented in the Site Inspection Report.</p>
11	Figure F-2, Page F-3	<p>The Permittee's project schedule did not allow adequate time for NMED's review of the Work Plan and resolution of comments. For example, the Permittee indicates a total of 20 days for the NMED's review of the Work Plan on line 14 (4 June to 1 July 2009) and one day for submittal of a revised work plan (10 July 2009) followed by mobilization to the work site three days later (13 July 2009).</p>	<p>Schedule will be updated per NMED recommendation</p>

			NMED will set a schedule for comments resolution and reporting based on the scope of work and any required changes to the Work Plan.	
12	Addition of SWMU 73		<p>The Permittee contacted NMED regarding the investigation of SWMU-73 during the same time frame. The Permittee may include plans for investigating SWMU 73 in the revised Work Plan.</p> <p>The Permittee must address all comments and submit a response by November 30, 2009. All submittals must be in the form of two paper copies and one electronic copy. The Permittee must also provide an electronic red-line strike out version of the revised Work Plan that shows all revisions made to the Plan.</p>	