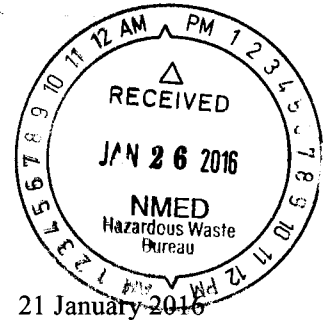




DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 49TH WING (ACC)
HOLLOMAN AIR FORCE BASE, NEW MEXICO



ADAM M. KUSMAK, GS-13, USAF
Chief, Installation Management Flight (49 CES/CEI)
49th Civil Engineer Squadron (49 CES)
Holloman Air Force Base, NM

USEPA, Region 6 (6PD-F)
Attn: Mr. Chuck Hendrickson, Project Manager
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Dear Mr. Hendrickson,

Holloman AFB is pleased to submit the Response to Comments document for the Final SR859a Former Skeet Range 2 and TS862a Jeep Target Area Skeet Range Remedial Investigation Work Plan, Holloman Air Force Base, NM.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions regarding this submittal, please contact me at (575) 572-6675 or by email at adam.kusmak@us.af.mil.

Sincerely,

KUSMAK.ADAM
.M.1263331806

Digitally signed by
KUSMAK.ADAM.M.1263331806
DN: c=US, o=U.S. Government, ou=DoD,
ou=PKI, ou=USAF,
cn=KUSMAK.ADAM.M.1263331806
Date: 2016.01.22 09:31:22 -0700

ADAM M. KUSMAK, GS-13, USAF

Attachment:

Response to Comments - Final SR859a Former Skeet Range 2 and TS862a Jeep Target Area Skeet Range Remedial Investigation Work Plan, Holloman Air Force Base, New Mexico.

cc:

(w/Atch)
Mr. David Strasser
Hazardous Waste Bureau
121 Tijeras Dr. NE Ste. 1000
Albuquerque NM 87109-4127

(w/Atch)
Mr. John Kieling, Chief
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(w/o Atch)
Mr. Will Moats
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121 Tijeras Dr. NE Ste. 1000
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Common Comment and Response Worksheet (Version 3)

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Item	Source	Section	Page	Para	Class	Comment		Response	
1	NMED	General	xi	3		<p>This paragraph indicates that the Remedial Investigation (RI) for these two former skeet ranges will be performed ".....in accordance with the Comprehensive Environmental Response, Compensation, and liability Act (CERCLA) of 1980, as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986." In a letter dated July 14, 2014, NMED advised the Permittee that closed ranges are fully subject to the corrective action requirements of the Resource Conservation and Recovery Act (RCRA), the New Mexico Hazardous Waste Act, and the New Mexico Hazardous Waste Management Regulations. In addition, in a letter dated November 26, 2014, the United States Environmental Protection Agency (EPA) advised the Permittee that these non-operational ranges are fully subject to corrective action under 40 C.F.R § 264.101. which is incorporated in the Facility's Hazardous Waste Permit issued by the NMED. The NMED is therefore reviewing this RI Work Plan (RI WP) under the authority of RCRA, the New Mexico Hazardous Waste Act, the New Mexico Hazardous Waste Management Regulations, and the Facility's Hazardous Waste Permit. However, apart from the format, sufficient information has been presented in the subject document for effective review.</p>		<p>Noted. The USEPA created a guidance, Unexploded Ordnance Management Principles, in 2000 to address the cleanup of "other than operational ranges" (which were then referred to as "closed, transferred and transferring [CTT] ranges)." This remains EPA policy. In that policy document, EPA states: " -- A process consistent with Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and these management principles will be the preferred response mechanism used to address UXO at a CTT range. -- The legal authorities that support site-specific response actions at CTT ranges include, but are not limited to, the CERCLA, as delegated by Executive Order (E.O.) 12580 and the National Oil and Hazardous Substances Contingency Plan (NCP); the Defense Environmental Restoration Program (DERP); and the DoD Explosives Safety Board (DDESB)." Since both SR859a and TS862a Munitions Response Sites (MRSs) have been addressed under the U.S. Air Force Military Munitions Response Program (MMRP) created by Congress in 2001 under the DERP as established by Section 211 of the Superfund Amendments and Reauthorization Act (SARA) of 1986 these sites are subject to regulation under the MMRP CERCLA cleanup process. Upon initiation of this contract, site goals, decisions, and schedules were based upon the CERCLA regulatory process. This Work Plan was submitted per USAF policy under the CERCLA process at the time of transmittal. Based on information provided above, no revisions of the WP are required.</p> <p>In response to the November 26th EPA letter, a Response to Comments document was prepared and submitted on January 26th 2015. A summary to this particular comment is provided hereafter: " The EPA has long-recognized DoD's preference for conducting munitions response actions under CERCLA, a preference recently recognized in an EPA OSWER guidance document. Holloman AFB has for some time been utilizing a CERCLA-type process to conduct such actions at Holloman in general for munitions responses and these sites in specific. To switch to RCRA corrective action now would cause needless backtracking and duplication. Besides, as recognized by EPA, munitions responses conducted consistent with CERCLA and the NCP should substantively satisfy state RCRA type corrective action requirements. Please note that the courtesy copy of all deliverables is provided to NMED."</p>	

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2	NMED		xii ES and pg 15 QAPP WS10	ES 1&3 WS10-1		<p>These paragraphs indicate that the Report for the Phase II Comprehensive Site Evaluation (CSE) conducted in 2013 at both Munitions Reponse Areas (SR859 and TS862) recommended splitting them into two Munitions Response Sites (MRSs) each: SR859 (34.3 acres) and SR859a (8 acres) and TS862 (34.6 acres) and TS862a (5.7 acres). This was recommended based on the perceived lack of Munitions and Explosives of Concern (MEC) and Munitions Constituents (MC) exceeding regulatory screening levels at MRSs SR859 and TS862, which were recommended for No Further Action in the CSE Phase II CSE Report. The smaller MRSs (SR859a and TS862a) were recommended for future munitions response actions due to MCs in soil that exceed screening levels, with the proposed responses including soil/clay target debris excavation and disposal and post-excavation confirmation sampling.</p> <p>No further munition response activities are proposed for the larger MRSs (SR859 and TS862). However, Figure 2 of the RI WP shows that lead shot is scattered throughout MRS SR859. The legend for Figure 3 of the RI WP shows a symbol for lead shot, but no lead shot symbols appear within the MRS on the Figure. A walkover of both MRSs con-ducted on July 30, 2015 by NMED and base environmental staff found lead shot scat-tered extensively on the ground surface at both of the larger MRSs. Although the Phase II CSE soil investigation found no MCs exceeding screening levels at both of the larger MRSs (with the exception of two small areas in MRS SR859), it appears that visible masses of lead shot are present on the surface at several locations within these two areas. The lead shot occurring in masses that are visible in a walkover survey is clearly a waste that constitutes a hazard to human health and ecological receptors at both MRSs. It appears that the Phase II CSE sampling methods failed to detect the shot and led to conclusions based upon results which are not representative of site conditions. During the Phase II CSE, X-ray fluorescence (XRF) was utilized in the field to survey the soil at both MRSs for lead. However, XRF should only be used as a field screening tool or in combination with data obtained by laboratory analysis using EPA SW-846 methods. NMED does not accept XRF survey data by itself as providing conclusive results for determining the nature and extent of contamination in soil. Instead, laboratory analysis of soil samples must be used at least in part to define the limits, horizontal and vertical, of contamination.</p> <p>Furthermore, although Figures 2 and 3 of the RI WP provide the locations of XRF samples, they only indicate whether the results for samples were less than or more than the 400 milligrams per kilogram (mg/kg) screening level for residential land use. All of the XRF data should have been reported, regardless of whether the soil screening level for residential land use (400 mg/kg) was exceeded.</p> <p>The Permittee shall propose a sampling protocol that includes laboratory analysis of surface and subsurface soils to 18 inches below ground surface at areas that are, or may be, impacted by the presence of lead shot. Lead shot shall not be removed from the soil samples prior to analysis of the samples. All samples shall be analyzed in the laboratory for antimony, arsenic, copper, lead and zinc. The proposed sampling protocol shall be included in a revised work plan submitted for NMED review. Any needed remedial measures will be based on the results of this sampling, including analysis of risk to human health and ecological receptors and to groundwater. The sampling protocol must include extensive sampling of soil to ensure that all "hot spots" of contamination are detected. Confirmatory sampling will also be needed for those areas determined to contain contamination that represents an unacceptable risk to human health or the environment, and subsequently are remediated. Preferred by the NMED, and as an alternative to such extensive area-wide sampling and analysis and assessment of risk, the Permittee may propose a presumptive remedy for both MRSs (SR859 and TS862, as well as SR859a and TS862a) to conduct remediation of surface soils and subsurface soils to remove the waste lead shot and any other MCs followed by post-excavation confirmatory sampling. There are available technologies designed specifically to clean up skeet and shooting ranges. Any removed soil/debris, including lead shot and clay target debris from MRSs SR859a and TS862a, must be characterized for proper disposal.</p> <p>The Permittee shall submit a revised work plan in the form of a Investigation Work Plan (IWP; see comment #5) or an Accelerated Corrective Measures Work Plan, if the field work can be completed within 180 days or a Corrective Measures Work Plan if the field work will take longer than 180 days, incorporating one of the above directives. The If a presumptive remedy is proposed, the work plan must provide a proposal for post-excavation confirmatory sampling and hazardous waste disposal.</p>	<p>Noted. The SR859 MRS and TS862 MRS were thoroughly investigated during the CSE Phase II investigation and although lead shot was found throughout the MRSs, results from soil samples collected using USEPA approved methodology (SW846 3050/6010 which specifies removal of particles larger than 2mm and any foreign objects such as sticks, leaves, and rocks etc.) did not indicate unacceptable risk. All results were below the USEPA RSL of 400 mg/kg. Including fragments of lead shot in samples would only verify that shot consists of lead. The objective during the CSE Phase II was to analyze potential impacts to soil from lead shot and clay target debris. All CSE Phase II lead and PAH sampling data, including laboratory, XRF lead correlation data, and point-specific sampling results (for lead and PAHs) are presented in the Final CSE Phase II Report (September 2013) . The results from correlation data presented in Section 5.21 of the CSE Phase II report indicated a correlation coefficient of 0.99, concluding that the XRF data are considered to be definitive and can be used in the risk assessment and for remedial decision-making. The purpose of the referenced figures in Work Plan are to show site features as reported from the CSE Phase II and not data. As the CSE Phase II indicated, although lead shot is present on the surface, soil results indicated that lead is not a contaminant of concern. In review of Figure 3 from the Work Plan as compared to the CSE Phase II it appears that the lead shot symbol on the figure was incorrect and was displayed the same as the projectile symbol on the figure and was not consistent with the legend. This was not caught during the review process. The Final CSE Phase II Report recommended only SR859a and TS862a MRSs to move forward for additional response activities. The other MRSs were recommended for NFA. The CSE Phase II used USEPA approved analytical and risk assessment methods to assess the impacts of contamination to human and ecological receptors and concluded the soil at SR859 and TS862 MRSs do not pose an unacceptable risk. As such, the focus of the RI and follow-on work will be restricted to those MRSs (SR859a and TS862a) moving forward in the program.</p>

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3	NMED		20 WS11	Dec. Rules 2&3		Decision Rule 2 states "If the concentrations of metals and/or PAHs in soil exceed the project action limits, then a range of data points exceeding the project action limits from the site dataset will be analyzed to determine if the analytes will leach from the soil utilizing USEPA's synthetic precipitation leaching procedure (SPLP)". Decision Rule 3 then states that the leachate concentrations resulting from the SPLP analysis will be used to determine if the site is subject to further remedial action (e.g. soil removal) to protect groundwater. NMED does not agree with this protocol. If, as a result of soil sample analysis, MCs are found in excess of the NMED Soil Screening Levels (SSLs), including evaluation of the dilution attenuation factor (DAF), or the EPA's Regional Screening Levels (RSLs), the Permittee will be required to remediate the soil as necessary to achieve an acceptable level of risk to both human and ecological receptors, and to groundwater. The Permittee shall submit a work plan incorporating the above revisions in protocol.	Noted. Following the decision rules indicates that any soil and/or soil leachate samples that exhibit results of COCs above stated action levels are subject to remedial actions (e.g. soil removal etc.). As stated in Decision Rule 4 - Removal of contaminated soil that exceeds the project action limits set forth in Worksheet #15 with confirmation soil sampling to ensure all contamination is removed or if additional removal is needed. This includes both soil exceeding the soil RSL and/or soils that result in leachate exceeding the screening values presented in Worksheet #15. Decision Rule 3 indicates that upon review of SPLP analysis further investigation of groundwater may be warranted. An example is given of soil removal to protect groundwater to achieve levels that do not pose a risk to human and/or ecological receptors.
4	NMED		43 WS15	Project Action Limits		The following Project Action Levels for soils (as RSLs or SSLs, shown in mg/kg), as provided on Worksheet #15, need to be revised: Antimony: RSL should be 31, not 3.1 Copper: RSL should be 3,100 not 310 Zinc: RSL should be 23,00, not 2,300 Acenaphthene: RSL should be 3,500. not 350 Benzo(a)pyrene: RSL should be 0.148, not 0.48 Fluoranthene: RSL should be 2,300, not 230 Fluorene: RSL should be 2,300, not 230 2-methylnaphthalene: RSL should be 230, not 23 Pyrene: RSL should be 1,700, not 170 In addition, the "NMED Water Quality Standard" for copper should be 1,000 micrograms per liter (µg/L) and that for zinc should be 10,000 µg/L, not "NA", as per Other Standards for Domestic Water Supply, 20.6.2.3103(9) NMAC. In addition, either the default the value based on a DAF of 20 or a calculated site-specific DAF must be included for each compound in the worksheet. The Permittee shall submit a work plan incorporating the above revisions.	Noted. For all compounds listed aside from Benzo(a)pyrene, the values presented were obtained from the USEPA RSL tables with a more conservative Target Hazard Quotient (THQ) of 0.1 not the values from a THQ of 1.0 as suggested. For Benzo(a)pyrene - Agreed the NMED value should be presented as 0.148, however the USEPA value presented (0.015) is more conservative and will be utilized for screening during this project. It should be noted that USEPA RSL values were current at the time of the WP preparation and some compound screening values have since changed. Table 15 provides the USEPA MCL values for SPLP leachate comparison along with values from Subsection B of 20.6.2.3103(9) of the NMAC Other Standards for Domestic Water Supply. Comparison to USEPA tapwater standards or domestic water supply standards are not applicable in this scenario as the SPLP leachate analysis a model to determine if potential soil contaminants would leach out of the soil.
5	NMED		47 WS17	3&4		These paragraphs, addressing MRSs SR859a and TS862a, indicate that based upon soil sample results, remedial options will be evaluated in an Engineering Evaluation/Cost Analysis (EE/CA) document. In order to be compliant with the Facility's Hazardous Waste Permit, the Permittee is required to submit a work plan as described in Item 2 above in lieu of the EE/CA for NMED review, prepared in accordance with Permit Section IV.L.	Noted. Please see response to Comment #1. Upon evaluation of results to be presented in the Remedial Investigation Report, an EE/CA will be prepared to evaluate potential alternatives and associated costs to mitigate contaminated soil. Following the EE/CA a NTCRA Work Plan will be prepared prior to any soil removal activities.
6	NMED	Appendix E		Tables 5-9 & 5-13		When resubmitting these sampling result tables, the Permittee shall include columns for NMED and EPA screening levels (SSLs and RSLs). In addition, as referred to in Comment #2 above, results of the CSE Phase II XRF survey for both sites were not included in this Appendix. The Permittee shall provide the XRF results in the work plan.	Noted. These tables are direct pages from the Final CSE Phase II Report and not created appendices for this Work Plan. The RI Report will include USEPA RSLs and NMED screening levels for comparison of sample results. Given that the CSE Phase II concluded that lead was not a COC at these sites, the XRF data was excluded from the appendix. All CSE Phase II data can be found in the CSE Phase II Report.
						The Permittee shall submit the work plan for MRSs SR859 and TS862 as well as SR859a and TS862a to NMED on or before November 23,2015 in the form of two paper copies and one electronic copy (in MS Word/ Excel™ format).	Noted. Please see response to Comment #1. A revised Work Plan including MRSs SR859 and TS862 as well as SR859a and TS862a is not warranted. The Final CSE Phase II Report recommended only SR859a MRS and TS862a MRS move forward for additional munitions response activities. The other MRSs SR859 and TS862 were recommended for NFA. The CSE Phase II used USEPA approved analytical and risk assessment methods to assess the impacts of lead and PAHs to human and ecological receptors and concluded that the soil within SR859 and TS862 boundaries do not pose an unacceptable risk. As such this RI and follow-on EE/CA, Action Memo and NTCRA will be restricted to SR859a and TS862a.

Column A: Comment Identifier Number
Column B: Source (Commenter/Authority)
Column C: Section Number of Comment
Column D: Page Number of Comment (first page associated with comment)
Column E: Paragraph number, on page, of Comment Line Number (within Paragraph above) of Comment
Column F:

Comment Classifications
(C) Critical: Critical comments will result in a critical issue. Provide convincing support.
(M) Major: Major comments are significant concerns that may result in a major issue. This category may be used with a general statement of concern followed by a detailed comment on the specific entries in the document that, considered in total, constitute the concern.
(S) Substantive: An entry in the document that appears to be or is potentially unnecessary, misleading, incorrect, or confusing.
(A) Administrative: Administrative comments correct inconsistencies between different sections, typographical and grammatical errors.

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Column G: Comment Classification
 Column H: Comment
 Column I: Response
 Notes: Comments must be actionable ("add the following text:...", "delete...", "change text to:")
 Place only one comment per row.
 Classify comment as C, M, S, or A.