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

16 January 2015

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

SUBJECT: Transmittal of Responses to Comments on Three Former Skeet Ranges: EE/CA for TS851a and RI Work Plan for SR859a and TS862a, Holloman Air Force Base, New Mexico, EPA I.D. #NM6572124422

Dear Mr. Hendrickson,

Holloman AFB is pleased to submit the Responses to Comments, dated November 26, 2014 on the following submittals: Engineering Evaluation / Cost Analysis (EE/CA) for TS851a – Former Skeet Range and SR859a – Former Skeet Range 2 and TS862a Jeep Target Area Skeet Range Remedial Investigation (RI) Work Plan.

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 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) 572-3931.

Sincerely,

DEANNA ROTHHAUPT, GS-12, DAFC

Attachment:
Responses to Comments on Three Former Skeet Ranges: EE/CA for TS851a and RI Work Plan for SR859a and TS862a.

cc: Mr. John Kieling, NMED HWB
Mr. David Strasser, NMED HWB
Mr. Will Moats, NMED HWB

Common Comment and Response Worksheet (Version 3)

Date		Reviewer					Document Title (version) Draft Final RI WP SR85a and TS862a	Contract/TO Number/EPA I.D. # FA8903-13-C-0008/NM6572124422
Item	Source	Section	Page	Para	Line	Class	Comment	Response
1	USEPA	1.1 Authority and 3.2 ARARs					USAF claims to be lead agency for this EE/CA, with "participation of and cooperation with federal, state, and local authorities and the local public". This EE/CA fails to recognize that this site, which is a nonoperational former range, is fully subject to corrective action under 40 CFR 264.101, which is incorporated in Holloman's Hazardous Waste Permit issued by NMED, since investigation results indicate that this former skeet range is a SWMU with releases of hazardous waste (i.e., lead shot) and constituents. Under the Military Munitions regulations in 40 CFR 266.202, the munitions wastes here are no longer excluded from the definition of solid waste because this range is neither an active nor an inactive range. The MMRP (Military Munitions Response Program) provides no exemption from this RCRA authority.	**Noted.** 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.
2	USEPA	1.1 Authority					In addition to the comment immediately above, please note this text from the November 2009 Final Army MMRP RI/FS Guidance, Section 1.5: "While the DoD prefers to conduct the MMRP under CERCLA, the Army recognizes that some installations may be required to address an MRS under the Resource Conservation and Recovery Act (RCRA) Corrective Action process. It should be noted that RCRA-permitted sites are normally ineligible for the MMRP and will continue to be addressed under RCRA programs." With this information in mind, I recommend that the Air Force recognize the applicability of NMED's RCRA authority to certain MRS sites under the MMRP program at this facility. NMED has informed me that it will be regulating cleanup of this site.	**Noted.** This MRS is not currently listed on the Holloman AFB RCRA Part B Permit and as such is not a RCRA-permited site. Please note that the courtesy copy of all deliverables is provided to NMED.
3	USEPA	2.2.2	2-8				TS851 MRS (30.5 acres) encompasses the portion of the MRA not impacted by PAH or lead contamination." The visual survey results on Figure 2-2 show that lead shot was found throughout the area of TS851, so all of this MRS is impacted by lead contamination. Please correct the discrepancy in the text.	**Noted**. The SR859 MRS and TS862 MRS were 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) did not indicate unacceptable risk.
4	USEPA	Lead Shot					There is a major discrepancy here between the abundant presence of Pb shot and the absence of any sampling results indicating Pb contamination. In Appendix D of the CSE Phase II report, the Daily QC Report for 10/19/2011 states: "Small arms debris at the site consists of shot gun shells (12-gauge), pistol projectiles (9mm, .38, and .45 cal), and a large amount of shot pellets scattered across the entire range." And photos in Appendix E of that report show surface shotgun pellets in scattered and in very dense concentrations. So there is a significant visible mass of l ead shot on the site. Of the 68 surface soil XRF sample locations in the CSE Phase II work, 48 samples were noted to contain Pb shot. But with four XRF readings per sample, none of the 68 samples had high Pb readings [the maximum sample average was 154 mg/kg]. The presence of Pb shot would have given very high XRF readings, so I assume that the procedures in place [e.g., from Section 4.5.1.2 of the CSE Phase II report: "Large particles, organic matter, and projectile debris were removed from the samples."] resulted in removal and/or avoidance of the shot in samples. The end effect was that the presence of the shot, though noted, was not measured and was not taken into consideration as any component of site contamination risk. The Pb shot is clearly a site waste that constitutes potential hazards. The CSE sampling methods excluded the shot from measurement and led to conclusions based upon results which are not representative of site conditions. There should have been site-specific protocols to measure the amount of shot at the site. These protocols would include use of sieves sized to capture and separate the shot in the soil, with subsequent measurement of the shot (in mg/kg of sample, mg/area, and/or pellets/square foot). I recommend that the former range be resampled specifically for the shot. Such sampling has been done, for example, at the Fort Meade, MD, Trap and Skeet Range 17 site. That sampling program, based on a 2009 RI/FS work plan, used protocols to specifically measure shot content of soil in one-square foot samples from 0-1" depth, as well as analysis of sieved soil. Results delineated the extent of contamination, noting that arsenic and antimony were also COPCs from the shot; these three metals were considered primary COPCs for both human health and ecological hazards. Investigation also found nitrocellulose and nitroglycerine associated with the firing points. These are some documents which support the type of sampling protocol used at Ft. Meade and/or discuss risks specific to skeet ranges: Final Technical Protocol for Determining the Remedial Requirements for Soils at Small-Arms Firing Ranges, AFCEE, August 2000: Section 3.3.1.3, Field Sieving Superfund Program Representative Sampling Guidance, Volume 1: Soil, USEPA, 1995, EPA 540/R-95/141: Section 4.4, Sieving Samples Preparation of Soil Sampling Protocols: Sampling Techniques and Strategies, USEPA, July 1992, EPA/600/R-92/128: page 5-16 Soil Sampling Quality Assurance User's Guide, Second Edition, USEPA, March 1989, EPA/600/8-69/046 ATSDR letter to USACHPPM, March 9, 2011, RE: Procedures for Former Ranges that Undergo Land Use Changes Characterization and Remediation of Soils at Closed Small Arms Firing Ranges, ITRC, January 2003: Appendix B TRW Recommendations for Performing Human Health Risk Analysis on Small Arms Shooting Ranges, USEPA, March 2003, OSWER #9285.7-37 As an alternative to such sampling of the entire site, Holloman may wish to consider a presumptive remedy of removal of surface soils for the majority of the shot/skeet-contaminated area, with sampling used to define the limits, horizontal and vertical, of necessary removal.	**Comment Noted.** As noted in the response to Comment 3, the only portion of the 859 MRA and the 862 MRA moving forward for munitions response activities is the SR859a MRS and the TS862a MRS. For SR859a MRS and the TS862a MRS, although lead shot were identified at the surface during the CSE Phase II, these areas are within the PAH-impacted areas anticipated to undergo the presumptive remedy (soil removal) during the NTCRA. If lead shot is identified during the soil removal activities, it will be noted. However, the soil removal activities will result in removal of surface lead shot within the MRS boundary.
5	USEPA	Clay Targets					The CSE Phase II report noted dense fans of clay target debris typical of skeet ranges. But the soil sampling method removed clay target debris from the samples, and the clay target debris itself was not analyzed for hazardous constituents. The risks posed by the target debris needs to be assessed. Ft. Meade's 2013 Trap and Skeet Range 17 work plan addendum focused on investigating nitroglycerine and the PAHs associated with the clay targets; the addendum's sampling protocol specified that clay pigeon fragments not be removed from the soil surface before collecting samples. Such a sampling, analysis, and evaluation program should be applied at Holloman AFB.	**Noted**. The soil sampling SOP is to remove any visible foreign objects (e.g. twigs, gravel, etc.) from soil samples prior to sending for laboratory analysis to ensure the analytical data is representative of the PAH concentrations in soil. For the NTCRA, the anticipated soil to be removed will encompass areas containing visual evidence of clay targets as well as laboratory analytical results exceeding USEPA RSLs. Thus the confirmatory soil samples taken from the floor and sidewalls of the final excavation should not contain any clay target debris.

6	USEPA	Risk Assessment					Our risk assessor's review of the CSE Phase II report resulted in some additional comments, including: the lead pellets and PAHs present risks to human health and to ecological receptors, including adults, children, birds, terrestrial and burrowing creatures, especially via ingestion of pellets; please include screening level values on results tables (e.g., Table 5-2); exposure analysis should include all likely future uses; RL/DL values should be provided on Table 8-14; and RLs greater than RSLs/SSLs should be included in initial risk screening to avoid underestimating risks (pg. 352).	**Noted**. The CSE Phase II was finaliazed in September 2013. The baseline risk assessment will be included in the RI Report for SR859a and TS862a will focus on lead in soil based on the laboratory analyical results using SW 846 3050/6010.
7	USEPA						Based on the comments above, more investigation is needed across the entire TS851 range area to determine extents of contamination of shot, PAHs associated with clay pigeons, and shotgun propellants.	**Noted**. The Final CSE Phase II Report (September 2013) recommended only SR859a MRS and TS862a MRS move forward for additonal 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 to human and ecological receptors and concluded the soil in the SR859 MRS and TS862 MRS do not pose an unacceptable risk. As such, the focus of the RI and follow-onEE/CA and NTCRA will be restricted to SR859a and TS862a.
8	USEPA						Though the details differ, results from the CSE Phase II report indicate that these two former ranges are quite similar to site TS851. The above comments on site TS851 also apply directly to these two sites.	**Noted.** Please see the responses above.

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
Column E: Paragragh number, on page, of Comment
Column F: Line Number (within Paragraph above) of Comment
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.

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 confusng.
(A) Administrative: Administrative comments correct inconsistencies between different sections, typographical and grammatical errors.