



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
1600 EAST LAMAR BOULEVARD  
ARLINGTON, TEXAS 76011-4511

July 26, 2012

SURGEON GENERAL OF THE AIR FORCE  
AIR FORCE MEDICAL SUPPORT AGENCY (AFMSA)  
ATTN: SG3PB (RADIATION HEALTH)  
Lt. Col. David A. Smith, BSC, Ph.D., 4NW340E  
7700 Arlington Blvd, Ste 5151  
Falls Church, Virginia 22042-5151

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION ABOUT THE DEPARTMENT OF  
AIR FORCE'S FINAL STATUS SURVEY REPORT FOR SITE RW-06 AT  
KIRTLAND AIR FORCE BASE

Dear Lt. Col. Smith:

The NRC Region IV staff has reviewed the Air Force's final status survey report (FSSR) dated November 3, 2011, for Site RW-06 at Kirtland Air Force Base. Overall, the final status survey design meets the recommendations of MARSSIM (NUREG-1575, Revision 1), and all final status survey results meet the NRC's release criteria. The NRC staff determined that the FSSR was comprehensive.

The following questions are being submitted to the Air Force primarily to enhance or to clarify the FSSR.

1. Page v, Environmental Justice Consideration: Typo, second paragraph – change “The populations living...” to “The minority populations living...”
2. Page vi, Environmental Justice Consideration, last paragraph: This section concludes with the statement that “based on the analysis of any potential impacts, there would be no disproportionately high or adverse impacts to minority and low-income populations.” However, this section does not clearly explain why this conclusion is valid. This section transitions from a description of the local minority and low-income populations straight to a conclusion.

The Air Force should consider adding the analyses that results in the concluding statement.

3. Page ES-2, last paragraph: This paragraph states that “A total of 37 soil samples...” However, the NRC staff reviewer identified only 36 samples in Section 5.4.

Please explain where the 37<sup>th</sup> sample came from.

4. Page ES-3, last two paragraphs, and Page 2-5, Section 2.5: The FSSR does not explain if additional soils were brought onsite to replace the 480 tons of soils that were shipped offsite for disposal.

Please update the FSSR to explain whether additional soils were needed to fill the void spaces. If additional soil was brought onsite, where did it come from, and was it confirmed to be free of contamination?

5. Page 1-1, Site Description and History: The FSSR does not discuss surface structures that may have been contaminated by past operations involving radioactive materials.

- A. For example, what is the status of the Radiation Effects Laboratory?  
B. In addition, were any of the onsite structures surveyed for radioactivity?

The NRC staff understands that some of the local structures may have been used to support the 1960-1971 experiments involving radioactive material. These experiments may have included long-lived radioisotopes; therefore, building surveys may be appropriate.

6. Page 1-7, Review of Previous Investigations: Please briefly summarize past investigations conducted prior to 2008 including dates, samples collected, and any important findings.

7. Page 1-7, Review of Previous Investigations: The last paragraph discusses the collection of direct push boring core samples.

Please provide a short description of how many samples were collected and how deep the samples were collected.

8. Page 3-6, Section 3.2.1: This section concludes that all survey units were within MARSSIM recommendations for size limits. This section also refers the reader to a figure that shows the survey units.

It would be helpful if the Air Force either added a table with the survey unit sizes or added a sentence stating the range (low to high) of the survey unit sizes. This would assist the reader in directly comparing the survey unit sizes to the MARSSIM recommended limits.

9. Page 6-1, Section 6.1, first paragraph: The phrase "The label for each survey unit..." was not clear to the NRC staff reviewer. Please clarify the sentence.

10. Page 6-1, Section 6.1, fourth paragraph: The first two sentences of this paragraph were not clear to the NRC staff reviewer.

- A. Did the author mean 10 or 12 biased samples?  
B. Did the author mean to include SU09 in this paragraph (which would have totaled 12 samples)?  
C. What is meant by the phrase "All other scan survey z-scores for selected biased sample areas..."? It's not clear to the reviewer if the author is referring to other biased soil samples or if the author is referring to areas that had high z-scores but were not specifically sampled.

11. Page 6-1, Section 6.1, last paragraph: Typo – change "05" to "SU05".



12. Page 6-2, last sentence of the first full paragraph: This sentence provides a recommendation that appears to have been deleted from Section 7.0.

Perhaps this sentence should be deleted in its entirety.

13. Page 6-2, first sentence of second full paragraph: This sentence states that 25 samples were collected. Similar to Comment #3 above, the NRC staff reviewer counted only 24 samples.

Please explain where the 25<sup>th</sup> sample came from.

14. Page 6-3, Section 6.2, second paragraph: Typo – the second sentence is missing the closing bracket – “)”.

15. Appendix D, Page 4, last paragraph: Typo – change “SU02” to “SU12”.

16. Appendix D, Page 5, footnote to Table 3: The acronym “RCOPC” was not clear.

Please spell out this acronym.

As noted in our letter for NRC inspection report 030-28641/11-002 dated June 29, 2011, the NRC Region IV staff has elected to voluntarily develop an Environmental Assessment (EA) for this project since it involved heavy construction work in outdoor areas. The NRC will conduct this assessment using the guidance provided in NUREG-1748, “Environmental Review Guidance for Licensing Actions Associated with NMSS Programs.” For this reason, the NRC staff has a number of questions related to the environmental impacts of this decommissioning action. This information will help the NRC staff to develop the EA.

1. Did the work project affect any cultural or historical resources?
2. Did the work project have the potential for impacting endangered species or critical habitats?
3. What construction mitigation measures did the Air Force take to limit the impacts to any species, habitats, or similar ecological resources (such as use of silt fences, etc.)?
4. Did the Air Force conduct any environmental analyses or consultations for this property via the RCRA or CERCLA processes?
5. When did the heavy construction activities start and when did they end?
6. Are there any unique features (arroyos, natural resources) near the property?
7. How far from the property is the nearest non-occupational worker (i.e., worker not working with radioactive material)?

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8. How far from the property is the nearest resident?
9. What is the current status of the property (i.e., is the property still under the control of the Air Force)?
10. Does the Air Force have any future (short-term) plans for the property?

Please note that Site RW-06 at Kirtland Air Force Base cannot be released for unrestricted use until the NRC has completed the Environmental Assessment. Please provide a response to the above within 30 days from the date of this letter.

If additional clarification is needed, please do not hesitate to contact Mr. Rob Evans directly at 817-200-1234 or [Robert.Evans@nrc.gov](mailto:Robert.Evans@nrc.gov) or if Mr. Evans is unavailable, please contact me, Ms. Jackie Cook, at 817-200-1132 or [Jackie.Cook@nrc.gov](mailto:Jackie.Cook@nrc.gov). If you contact Mr. Evans, please keep me apprised of the conversations.

In your correspondence regarding this letter, please reference the license, docket, and mail control numbers listed below.

Thanking you in advanced for your cooperation and assistance in this matter,

Sincerely,



Jacqueline D. Cook, Senior Health Physicist  
Nuclear Materials Safety Branch B

License: 42-23539-01AF  
Docket: 030-28641  
Control: 576334