



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 377TH AIR BASE WING (AFMC)

ENTERED

AUG 29 2011

Mr. Thomas Berardinelli
377 ABW/DS
2000 Wyoming Blvd SE
Kirtland AFB NM 87117-5000

Mr. John Kieling
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Dr East, Bldg 1
Santa Fe NM 87505-6303



Mr. Kieling

This letter is in response to your inquiry of 18 August 2011, "Submittal of Indoor Air Risk Evaluation Work Plan for Petroleum Hydrocarbon Fuel Compounds in Sub-slab Soil Vapor" (Tab 1). We are currently modifying contract requirements to accommodate your original request (Tab 2) for development of the required work plan. We apologize for our oversight in this matter and will provide a schedule for work plan development/delivery by 21 Sept 2011, as you requested.

If you have any questions with regard to this submittal, please contact Mr. John Pike at (505) 846-8546.

Sincerely


THOMAS F. BERARDINELLI
Director of Staff

2 Attachments

1. KAFB_8-18-2011_Submittal_Indoor_Air_WP
2. 28 JAN 2011 NMED LTR REVIEWING SUB SLAB REPORT FROM CH2 27 OCT 2009

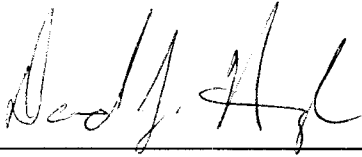


cc:

NMED RPD – Mr. Davis, w/atchs
NMED HWB - Mr. Moats, w/atchs
NMED HWB – Mr. Salem, w/o atchs
NMED HWB - Mr. McDonald, w/o atchs
NMED HWB – Mr. Brandwein, w/o atchs
NMED GWQB - Mr. Schoeppner, w/atchs
NMED OGC – Ms. Barnhart, w/o atchs
USEPA-Region 6 (6PD-N), Ms. King, w/o atchs
AFCEE, Mr. Oyelowo, w/o atchs
USACE, Mr. Midgal, w/o atchs
Admin Record, CNM, Montoya Campus w/atchs
File

40 CFR 270.11
DOCUMENT CERTIFICATION
AUGUST 2011

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 fines and imprisonment for knowing violations.



COLONEL DAVID J. HORNYAK
Commander



SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

**NEW MEXICO
ENVIRONMENT DEPARTMENT**

Hazardous Waste Bureau

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DAVE MARTIN
Secretary

RAJ SOLOMON, P.E.
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

January 28, 2011

Colonel Robert L. Maness
Base Commander
377 ABW/CC
2000 Wyoming Blvd. SE
Kirtland AFB, NM 87117-5606

Mr. John Pike
Director, Environmental Management Section
377 MSG/CEANR
2050 Wyoming Blvd., Suite 116
Kirtland AFB, NM 87117-5270

**RE: SCREENING-LEVEL RISK EVALUATION FOR PETROLEUM
HYDROCARBON FUEL COMPOUNDS IN SUBSLAB SOIL VAPOR – BULK
FUELS FACILITY, KIRTLAND AIR FORCE BASE, OCTOBER 27, 2009
KIRTLAND AIR FORCE BASE
EPA ID# NM9570024423, HWB-KAFB-MISC**

Dear Col. Maness and Mr. Pike:

The New Mexico Environment Department (NMED) has reviewed the document "*Screening-level Risk Evaluation for Petroleum Hydrocarbon Fuel Compounds in Subslab Soil Vapor – Bulk Fuels Facility, Kirtland Air Force Base*" (Report), dated October 27, 2009. The Report documents the analysis of subslab soil-vapor samples collected at the Fuels Facility Office (Building 1032) and the 90-Day Hazardous Waste Storage Area (Building 1048). Results from the soil-vapor sampling were used to conduct a screening-level risk evaluation of indoor air quality at these two buildings.

The initial soil-vapor analytical results indicate subsurface contamination of sufficient volatility and toxicity, and concentrations that could potentially result in unacceptable indoor air inhalation risk for workers that occupy Buildings 1032 and 1048. Furthermore, modeling of the sampling results suggests that the exposure pathway to occupants in Buildings 1032 and 1048 may be complete which could lead to long-term exposure to vapor-phase contaminants. The Report concludes that additional data should be collected to more rigorously determine the air quality inside the buildings.

Col. Maness and Mr. Pike
January 28, 2011
Page 2

The U. S. Air Force (Permittee) must therefore submit a work plan to perform direct measurement of indoor and ambient air using either multiple canisters or sorbent tubes. The vapor samples shall be analyzed using EPA Method TO-15. If sorbent tube sampling is used care shall be taken to assess the potential for interaction of target compounds with other reactive compounds such as ozone. The indoor air samples shall be collected on at least two separate occasions, and during the summer and winter to account for seasonal variability that may affect vapor intrusion. In addition, a survey of all buildings within 100 feet horizontally from or vertically above documented subsurface contamination shall be performed to assess if additional buildings should be included in the indoor-air sampling work plan.

The analytical results of the indoor air sampling must be used to construct a site-specific fate and transport model (such as the Johnson and Ettinger model) to assess the vapor intrusion pathway and to determine if exposures need to be mitigated. Key components of the model need to be justified with site-specific data including, but not limited to, the source (chemical constituents, concentrations, mass, phase distributions, depth and aerial extent), pathway (soil texture, moisture and layering) and building (building design, construction and ventilation). Model inputs and outputs shall be identified and appropriately justified.

The results of the vapor intrusion study shall be used to conduct an updated human health risk assessment for the residential land-use scenario. Updated toxicity values for constituents of concern, including TCE, shall be used if available.

Additional guidance to perform an evaluation of the potential for unacceptable indoor air quality is presented in the U. S. Department of Defense's *Tri-Services Handbook for the Assessment of the Vapor Intrusion Pathway, February 2008*.

The work plan must be submitted to NMED within ninety (90) days from the receipt of this letter.

If you have any questions regarding this matter, please contact Mr. Brian Salem of my staff at (505) 222-9576

Sincerely,



James P. Bearzi
Chief
Hazardous Waste Bureau

cc: J. Kieling, NMED HWB
W. Moats, NMED, HWB
B. Salem, NMED HWB
L. King, EPA-Region 6 (6PD-N)
File: Reading and KAFB 2011



SUSANA MARTINEZ
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JOHN A. SANCHEZ
Lieutenant Governor

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DAVE MARTIN
Secretary

BUTCH TONGATE
Acting Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

August 18, 2011

Colonel Robert L. Maness
Base Commander
377 ABW/CC
2000 Wyoming Blvd. SE
Kirtland AFB, NM 87117-5606

John Pike
Director, Environmental Management Section
377 MSG/CEANR
2050 Wyoming Blvd., Suite 116
Kirtland AFB, NM 87117-5270

**RE: SUBMITTAL OF INDOOR AIR RISK EVALUATION WORK PLAN FOR
PETROLEUM HYDROCARBON FUEL COMPOUNDS IN SUBSLAB SOIL
VAPOR – BULK FUELS FACILITY
KIRTLAND AIR FORCE BASE, EPA ID# NM9570024423
HWB-KAFB-MISC**

Dear Col. Maness and Mr. Pike:

The New Mexico Environment Department (NMED), in a letter dated January 28, 2011, directed the U. S. Air Force (Permittee) to submit to the NMED within ninety (90) days a work plan to perform direct measurement of indoor and ambient air using either multiple canisters or sorbent tubes. The analytical results of the indoor air sampling were to be used to construct a site-specific fate and transport model to assess the vapor intrusion pathway and to determine if exposures need to be mitigated to protect workers. The Permittee has not submitted the work plan to NMED as of the date of this letter.

The Permittee is hereby notified that it is not in compliance with the requirements of the KAFB Hazardous Waste Treatment Facility Operating Permit, specifically Permit Part 1.38.

The Permittee must submit in writing by no later than **September 21, 2011**, a schedule by which the Permittee will submit the delinquent work plan.

Col. Maness and Mr. Pike
August 18, 2011
Page 2

If you have any questions regarding this matter, please contact Mr. William Moats of my staff at (505) 222-9551

Sincerely,

John E. Kieling
Acting Chief
Hazardous Waste Bureau

cc: J. Davis, NMED RPD
W. Moats, NMED HWB
B. Salem, NMED HWB
W. McDonald, NMED HWB
S. Brandwein, NMED HWB
J. Schoeppner, NMED GWQB
L. Barnhart, NMED OGC
L. King, EPA-Region 6 (6PD-N)
File: KAFB 2011 and Reading