



AUG 9 2011

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Kirtland AFB NM 87117-5000



Mr. John Kieling
Hazardous Waste Bureau
New Mexico Environment Department
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Mr. Kieling

Kirtland Air Force Base (KAFB) is requesting an extension of time to complete the Bulk Fuels Facility Remediation Project groundwater monitoring well drilling campaign as set forth in the KAFB Groundwater Investigation Work Plan. The New Mexico Environment Department previously approved a drilling campaign completion date of 18 August 2011 for all seventy eight (78) groundwater monitoring wells. However, as a result of unforeseen events, KAFB is requesting an extension to the schedule deadline of 30 August 2011.

The request is based upon two significant events, each of which have contributed to a significant delay in completing the required drilling and installation of the groundwater monitoring wells. First, the localized geologic formations encountered during drilling have resulted in slower than expected advancement of the well casing due to the "tight" geologic units being encountered, i.e. clays. In many cases, well casing installation was slowed to less than 20 feet per hour. This has resulted in reduced productivity of fifty percent (50%) or more when compared to previous groundwater monitoring well construction locations. The clay-rich materials log the casing, hammer, and cyclone hose, resulting in additional unscheduled maintenance events. The geologic conditions vary between each well hole, with unpredictable scheduling delays of one day to one week observed per location.

Second, on 12 July 2011, a stop work order for all drilling activities was issued due to a safety incident at a residential location on California SE and Ross Avenue. While drilling at this location, the cyclone hose, which carries drill cuttings under high pressure to the collection hopper, disconnected from the drill hammer and sprayed soil cuttings and rock a distance of approximately 150 feet from the rig across the neighborhood. The rocks impacted several cars and houses causing damage to the property near the drilling location. The stop work order remained in effect until the drilling contractor developed and implemented an engineering safeguard to ensure the safety of neighborhood residents and prevent recurring catastrophic hose/hammer connection failures.

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Additionally, the drilling contractor was required to develop and present improved operational safety procedures resulting in a multiple day schedule delay. The corrective measures implemented in response to this incident, including multiple daily hose-drill hammer connection inspections, have not only improved the drilling contractor's operational safety procedures, but have also resulted in a slower, but safer drilling program.

Accordingly, Kirtland AFB is requesting an extension of time to complete the groundwater monitoring well drilling campaign no later than August 30, 2011. Your cooperation in approving this extension request will allow us to complete the drilling campaign without jeopardizing the safety of the residents adjacent to the remaining drilling locations.

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

Sincerely


THOMAS P. BERARDINELLI
Director of Staff

cc:

NMED HWB - Mr. Moats
NMED GWQB - Mr. Olson
NMED HWB - Mr. McDonald
NMED HWB - Mr. Brandwein
USEPA-Region 6 (6PD-N), Ms. King
AFCEE, Mr. Oyelowo
USACE, Mr. Midgal
Admin. Record, CNM, Montoya Campus
AR/IR
File

Subject: Draft RTS email

I wanted to take a moment to inform you of a change in the projected completion date of the installation of the 78 groundwater monitoring wells that are part of the Kirtland Bulk Fuels Facility remediation program. The initial projected completion date approved by the New Mexico Environment Department was August 18, 2011. Unfortunately, the drilling schedule has been delayed by two significant events, thereby establishing a new completion date of 30 Aug 2011.

First, the localized geologic formations encountered during drilling have resulted in slower than expected advancement of the well casing due to the "tight" geologic units being encountered, i.e. clays. In many cases, well casing installation was slowed to less than 20 feet per hour. This has resulted in reduced productivity of fifty percent (50%) or more when compared to previous groundwater monitoring well construction locations. The clay-rich materials log the casing, hammer, and cyclone hose, resulting in additional unscheduled maintenance events. The geologic conditions vary between each well hole, with unpredictable scheduling delays of one day to one week observed per location.

Second, on 12 July 2011, a stop work order for all drilling activities was issued due to a safety incident at a residential location on California SE and Ross Avenue. While drilling at this location, the cyclone hose, which carries drill cuttings under high pressure to the collection hopper, disconnected from the drill hammer and sprayed soil cuttings and rock a distance of approximately 150 feet from the rig across the neighborhood. The rocks impacted several cars and houses causing damage to the property near the drilling location. The stop work order remained in effect until the drilling contractor developed and implemented an engineering safeguard to ensure the safety of neighborhood residents and prevent recurring catastrophic hose/hammer connection failures.

As a result of the increased inspections for safer operation (every 20 feet of drilling), the drillers have determined that the metal flange connection on the hose is developing stress fractures during hammering of the casing, something that led to the catastrophic failure on California SE. Because of this engineering design flaw, it necessitates the flange being replaced every several hundred feet of drilling activity. The drilling contractor is working with the drill rig manufacturer on a permanent solution to this engineering design flaw that does not require frequent flange repairs however, for the time being, the current imposed procedure is the best approach to ensure safe operations with the current equipment. The necessity of these modified operating procedures ensures safer operations but has resulted in a slower production rate for each well location contributing to additional delay of the drilling program schedule.

If you have further questions about this delay in our completion schedule, please don't hesitate to contact me.