

KAFB  
Bulk Fuels Facility Spill  
SVE Work Plan  
Disapproval  
NMED Comment on Draft KAFB Response

**Comments on Draft KAFB SVE NOD Response Letter Provided to NMED at the  
7/16/13 KAFB-Senior Management Meeting**



**Comment/Response #1** – The NMED comment concerns the objective of interim remedial measures to be taken at the BFFS project for the cleanup of the vadose zone, which is stated by the NMED as “NMED’s primary concern is increasing the rate of extraction and treatment of hydrocarbon vapors from the subsurface.” The comment correctly states that NMED approved on June 11, 2012, a dual thermal/catalytic oxidizer as called for in the partial design plan, and that a thermal oxidizer (THERMOX) could achieve a higher rate of vapor treatment than a catalytic oxidizer (CATOX).

The partial design plan that was approved by the NMED provided for a 1000 SCFM blower (at 11 inches Hg vac.), which was at the low end of the range (1000-4000 SCFM) discussed at various meetings prior to submittal of the partial design plan (submitted June 4, 2012). The partial design plan states the “Unit can run in pure thermal oxidation mode when SVE gas is high in hydrocarbons and in catalytic mode (to reduce fuel consumption) when gas concentrations taper off.” Although the NMED/HWB recognized that the 1000 SCFM blower was on the low side of what was really desired, the 1000 SCFM blower was accepted with the condition that the Department reserves its right to require modification of or add additional capacity to the new SVE treatment system at any time (see NMED June 4, 2012, letter).

Staff is trying to verify the claim in the response that the partial design plan stated it would achieve a treatment rate of 90 lbs/hour based on a LEL of 40% (5,500 ppm hydrocarbon). None of the staff remembers any such discussion in the partial design plan, which because of being “partial”, in several aspects provided little detail.

The second paragraph of the KAFB response indicates that the design was revised later to incorporate a 1600 SCFM blower to be operated at 25% of the LEL in accordance with NFPA guidelines. This is the full SVE treatment plan submitted on December 3, 2012. The plan has not been approved.

The third paragraph of the KAFB response indicates that a 2500 SCFM blower was actually installed, and that the treatment rate is still 90 lbs/hour. The bottom line is that the treatment rate was increased from 69 lbs/hour using the ICE Units to 90 lbs/hour using the new system. The magnitude of this increase is not impressive given the scale of the problem at the BFFS site. Why KAFB would admit to intentionally designing a system from the beginning that would not markedly improve the treatment rate to be achieved by SVE is perplexing given that the ICE units were heavily criticized as being inadequate to clean up the site at a reasonable rate.



The first sentence of the response states that the SVE treatment system is a thermal oxidizer with a catalytic component. If KAFB had installed a true THERMOX Unit, they would not have argued with Steve Reuter of the NMED/PSTB over the merits of using a CATOX instead of a THERMOX. Instead, they would have claimed they were going to install a THERMOX. Furthermore, KAFB has sent numerous e-mails calling the unit a CATOX, including one with a photograph of the unit. Also, Section 2.1 and numerous other sections in the SVE treatment design plan of December 3, 2012, refers to the unit as a CATOX unit.

**Comment/Response #2** – The NMED comment states that the CATOX unit was substituted for the THERMOX unit “*without consulting with the NMED Hazardous Waste Bureau*” (emphasis added). This is a true statement.

The KAFB response states that KAFB worked closely with the NMED on the SVE treatment system design and provides examples of e-mails and submittals of draft drawings and specifications. However, KAFB did not provide the draft drawings and specifications to the HWB, which KAFB knew to be the lead oversight agency for the implementation of corrective action under RCRA Subtitle C. An e-mail from Steve Reuter on September 25, 2012, was the first indication of any kind that a CATOX unit was being considered as the sole technology to be deployed; to his credit Reuter argued against it in a few subsequent e-mails. The first time that HWB saw any draft drawings and specifications came in the form of an attachment to an e-mail from Victoria Martinez, KAFB, sent to John Kieling on November 29, 2012 (the official submittal was received by HWB a few days later on December 3, 2012). The November 29, 2012, e-mail attachment was the first time that HWB became aware that KAFB was actually going to make the change from the dual THERMOX-CATOX unit to just the CATOX unit. On December 3, 2012, the same date that NMED HWB received the official version of the SVE Treatment Plan, HWB technical staff were also notified and provided a photograph of the CATOX Unit already sitting on its concrete pad. The notification came from Brent Wilson, KAFB, originally as an e-mail to Jim Davis, NMED, on November 30, 2012.

According to weekly reports, the SVE treatment system was ordered from the vendor on August 3, 2012, (or August 10, 2012, depending on what weekly report you read). The system was apparently ordered before even Steve Reuter of the PSTB/NMED was informed of the possibility of a change in technology, which apparently was some time on or about September 19, 2012. According to the schedule with the weekly reports, construction of the SVE treatment system was to begin October 30, 2012. The design and ordering of the system components must have been completed in the August time frame in order for this schedule to be met.

**Comment/Response #3** – HWB is OK with this response.

**Comment/Response #4** – HWB is OK with this response.

**Comment/Response #5** – Although a response was not required, HWB is OK with providing the information in the Corrective Measures Evaluation (CME) Report.

**Comment/Response #6** – The response is unclear. Additional detail, including adding a figure or figures for illustration, is needed.

**Comment/Response #7** – The response is incomplete. KAFB did not say it would list the contents of the report. Furthermore, the August 15, 2013, date conflicts with the August 16, 2013, date in the next paragraph below the response.