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LETTER REGARDING REGULATORY REVIEW AND COMMENTS ON GROUNDWATER CONTAMINATION AT BUILDING 1518 NAS FORT WORTH TX
9/9/1992
TEXAS WATER COMMISSION

File: 17G
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NAVAL AIR STATION FORT WORTH JRB CARSWELL FIELD TEXAS

ADMINISTRATIVE RECORD COVER SHEET

AR File Number 114

File:
D.B. 174-22
114

TEXAS WATER COMMISSION

PROTECTING TEXANS' HEALTH AND SAFETY BY PREVENTING AND REDUCING POLLUTION

September 9, 1992

CERTIFIED MAIL P 112 890 429

Colonel Fink
Civil Engineers Commander
United States Air Force
P.O. Box 500
Carswell Air Force Base, Texas 76127

Re: Groundwater contamination at Carswell Air Force Base Service Station, Building 1518, Tarrant County, Texas.
(Facility ID No. 0009696; LPST ID No. 104524)

Dear Colonel Fink:

On September 2, 1992, Mr. Randy Varner of Carswell Air Force Base reported to Ms. Melissa Tanksley, TWC District 4 Office, that inventory reconciliation had indicated a possible leak (estimated 900 gallons) from an Underground Storage Tank at the aforementioned facility. A subsequent tank tightness test confirmed the leak. On September 4, 1992, Mr. Tom Knode, and Mr. Rick Waggoner (TWC District 4) met with Mr. Varner to investigate the release. Further research into inventory records yielded an estimated product loss of several thousand gallons. Mr. Waggoner lowered a bailer into a monitor well near the tanks, and recovered over one foot of phase separated product. Pursuant to Title 31, Texas administrative Code, Section 334.78-334.81, we conclude action is necessary in order to address the contamination at this site.

The Texas Water Commission (TWC) is responsible for protecting waters in the state as well as public health and safety from contamination that may result when a release occurs from a storage tank system. Title 31, Texas Administrative Code (TAC), Section 334.71-334.85 requires the owner or operator of a storage tank system to immediately abate any releases of a regulated substance and remove the resulting contamination.

The Petroleum Storage Tank Remediation (PSTR) Fund provides eligible owners and operators of leaking petroleum storage tanks with two options in deciding how to address the necessary corrective action in response to a release. You may:

- Coordinate the contamination assessment (with specific guidance from the TWC) utilizing your choice of contractors. This is termed Responsible Party (RP)-Lead.

OR

- Request the Texas Water Commission (TWC) to coordinate the corrective action response to the release under full TWC direction utilizing State-hired contractors. This is termed State-Lead.

If you need additional information regarding the State-Lead program, please notify this Office immediately. If you wish to enter the State-Lead program to address this release, please notify this Office in writing of your request within fifteen (15) days of the date of this letter.

If you intend to pursue this matter through the RP-Lead program, you are requested to conduct a contamination assessment study to determine the vertical and horizontal extent of soil and groundwater contamination. Your findings must be submitted to this Office in a detailed report. The report must include the following information:

1. A complete description of the storage tank system, the cause of the release, the volume of product lost, and all measures taken to abate and contain the release. Also provide a description of past usage of the site.

2. A site characterization which provides a description of both the regional and the site-specific soil types, geology, and groundwater conditions.

3. A determination of the extent of contamination and an account of the procedures utilized to support this determination. If any groundwater is threatened or has already been contaminated, you are requested to determine the degree and extent of groundwater contamination with the installation of three to five monitoring wells. Soil samples should be collected during the drilling process. The term "groundwater contamination" includes not only the presence of a product layer, but also any dissolved contaminants (dissolved-phase contamination). Please be sure to provide the following information:

   a. Copies of the signed State of Texas Well Reports (Form No. WWD-012) for all installed soil borings and monitor wells as required by the Texas Water Well Drillers Act.

   b. A groundwater gradient map (corrected for the floating product-thickness, when applicable) which is based upon groundwater-level measurements collected from the installed monitor wells. The groundwater gradient map should be presented on a site map drawn to scale. Please submit all supporting field measurements.

c. The background total dissolved solids (TDS) content of the contaminated groundwater zone. The sample should be collected from a nearby upgradient monitor well which is not contaminated.

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d. An inventory of all water wells located within a one-half mile radius of the site. The location of each inventoried well must be depicted on a current

U.S G.S. topographic map and all available information pertaining to each well should be provided.

4. A site map drawn to scale indicating the location of the entire storage tank system (tanks, lines, dispensers), all nearby buried utilities, and major structures. This map should also provide the location of any excavated areas and the collection points for all soil and water samples.

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5. A city or county map indicating the specific location of the facility and photographs which document observable impacts, excavations, stockpiled soils, and any treatment activities conducted at the site.

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6. A discussion of potential receptors (water wells, residences, schools, utilities, etc.)

7. Copies of the signed laboratory reports indicating the results of all sample analyses and copies of all corresponding chain-of-custody documentation. Also, provide a detailed description of the sampling methodology and handling procedures employed.

8. The volume and disposition of contaminated soils and water, recovered product, or any associated wastes. If wastes are transported off-site for disposal or recycling, copies of signed receipts from the receiving facility as well as any required uniform hazardous waste manifests must be submitted. All wastes must be handled in strict accordance with all applicable federal, state, and local laws and regulations.

9. A remedial action plan (RAP) for the completion of site remediation or a summary of additional activities planned to complete the assessment. The RAP should include a discussion of the technical alternatives for site remediation which may be feasible along with their estimated costs. For the preferred method, please provide a detailed description of system design and operation, and reasons why that method is preferred.

If monitor wells are installed, a groundwater monitoring and sampling program should be conducted on a quarterly (3-month) basis and Quarterly Observation Reports should subsequently be submitted to this Office which contain:

- Copies of signed laboratory reports providing the results of all sample analyses, copies of all corresponding chain-of-custody documentation, and a detailed description of sample collection and handling procedures.

- A groundwater gradient map for each sampling date as well as a description of the groundwater-level measurements (corrected for product thickness, when applicable) utilized to prepare this map.

- An account of the volume and disposition of all recovered fluids.

Please be advised of the following:

- If any of the released product accumulates in any monitor wells, the tankhold, piping trenches, etc., immediate removal measures must be implemented to be in compliance with 31 TAC 334.79. Provide a description of the method of product recovery and make observations to ensure that all product is continuously removed.

- In order to comply with 31 TAC 334.481-334.482, authorization must be received from the TWC prior to storing or treating petroleum-substance waste. By this letter, such authorization is issued for on-site storage of petroleum-substance waste such as drilling cuttings or groundwater removed during well development or purging activities at this site. This authorization is valid only until remediation is initiated at the site; however, all wastes must be properly stored to prevent any release of contaminants. The wastes should be removed from the site as soon as reasonably possible. Additionally, all vapor emissions that might be associated with this release or your response activities must be controlled and monitored to protect human health and safety.

- If you determine that contaminants released from your storage tank system have migrated off of your property, then 31 TAC 334.82(b) requires that you notify the affected landowner(s) of that fact.

- Special requirements may apply to releases from an aboveground storage tank or a hazardous substance storage tank regarding the generation, storage, treatment, and disposal of any hazardous waste.

- You are required to notify this Office at least forty-eight (48) hours in advance of conducting any significant on-site investigation or remedial activities including the initiation of excavation work or the installation of soil borings and/or monitor wells. Also, if locking caps are used on any monitor wells, then keys to the wells should be kept on-site during normal business hours so that periodic facility inspections can be conducted by representatives from this Office.

The contamination assessment report is due **forty-five (45) days** from the date of this letter and must be formatted as outlined in the May 1991 TWC publication PST Division Responsible Party Remediation Section, Standardization of Report Format, including a cover page, a report summary, and a chronology of events. **An extension to the established time frame may only be granted upon verbal request to the coordinator assigned to this case. You should be prepared to provide justification for the extension, a schedule for implementing the remaining activities, and a summary of all activities completed to date. Written documentation of this information and the new due date for the report must subsequently be provided to this Office.**

To address this matter, it is recommended that you take a well-planned phased approach. **Therefore, you are encouraged to secure the services of a qualified environmental consultant knowledgeable in hydrogeology to assist you in conducting the contamination assessment.**

A copy of your response or any other correspondence with this Office must also be provided to TWC Central Office to the attention of Mr. Ron Pedde, Responsible Party Remediation Section, P.O. Box 13087, Capitol Station, Austin, Texas 78711-3087. **The LPST ID Number should be included on all correspondence with this Office.** If you have any questions or require guidance regarding this matter, please contact Mr. Tom Knode of my staff at (214) 298-6171. Your cooperation will be appreciated.

Sincerely,

Melissa B. Tanksley

Melissa B. Tanksley
District PST Program Manager

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cc: Mr. Ron Pedde, RPR Section, PST Division,
(P.O. Box 13087, Capitol Station, Austin, TX 78711-3087)

III. TEXT (cont.)

B. SITE CHARACTERIZATION/FIELD INVESTIGATION RESULTS

In general, the following should be included:

* **DESCRIPTION OF THE FACILITY AND ITS HISTORICAL AND CURRENT BUSINESS OPERATIONS** - Indicate the type of facility (e.g., service station, manufacturing plant) and briefly summarize the historical and current business operations.

* **SOIL CLASSIFICATION** - Classify the soils present on-site and reference the soil classification system used, e.g., Unified Soil Classification System.

* **BACKGROUND WATER QUALITY** - If groundwater is threatened or has been impacted, present a short summary of any available water quality information for the investigated groundwater zone including the total dissolved solids (TDS) results of a groundwater sample collected from the least impacted monitor well on site.

* **REGIONAL GEOLOGY AND HYDROGEOLOGY** - Provide a short summary of the regional geology and hydrogeology. Include discussions of:

  a) the stratigraphy,
  b) the major structural features, and
  c) the major and minor aquifers (including aquifer name(s), approximate depths, thickness(es), hydraulic gradient(s), production capabilities, water quality, and present uses).

* **SITE GEOLOGY AND HYDROGEOLOGY** - Provide a discussion of the site geology and hydrogeology. Include site-specific descriptions of:

  a) the stratigraphy (including an indication of any formations which outcrop at or near the site),
  b) the structural features, and
  c) the first water-bearing formation encountered while drilling and any other major or minor aquifers present (including approximate depth(s), thickness(es), hydraulic gradient(s), production capabilities, water quality, and present uses - if not previously described in the regional discussion.)

* **DISCUSSION OF POTENTIAL RECEPTORS** - Include a narrative which describes the location of all nearby subsurface utilities, surface drainages, and water wells, and discuss the potential for contaminant migration to and through these avenues of transport. If the potential for contaminant migration to these receptors has not been investigated, discuss the rationale for this decision.

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