DEQ PROPOSED 2012 ADDITIONS TO 785:45 APPENDIX H

• ONE SITE (BOONE – TAR CREEK) WITH CLARIFICATION
• THREE NEW SITES
Proposed Oklahoma Additional Appendix H Sites

- BOONE (TAR CREEK)
- NORTH-CENTRAL OK (Former Farmland Feed Mill Site, Enid)
- VANNOS GROUP (Hudson Refinery Site, Cushing)
- NORTH-CENTRAL OK (Blackwell Zinc Co. Site, Blackwell)
Boone  (Tar Creek Superfund Site)

- Location: Unchanged
- Remarks: Greater detail to “Special Well Construction Required”
- Adds water testing and (in some cases) more specific water treatment for shallow groundwater
Updated Remarks for Boone (Tar Creek Superfund Site)

• “Toxic metals (lead, cadmium and arsenic) exceeding MCLs may be present in the Boone and shallow aquifer. Therefore special protective well construction is required through the Boone to obtain water for potable use from the deeper Roubidoux wells. For Boone wells, groundwater testing is required for toxic metals; and treatment is required to meet potable use standards when lead is greater than 15 ug/l, arsenic is greater than 10 ug/l, or cadmium is greater than 5 ug/l.”
Proposed Oklahoma Additional Appendix H Sites
Existing sites in blue; Red circles highlight new sites
North-Central Oklahoma - Enid
(Former Farmland Feedmill Site)

- Location: 36.26 acres in SW/4 19, T22N, R6W
- Remarks: Restriction on groundwater use due to nitrate contamination.
- No existing groundwater wells used for drinking water purposes on the affected property at this time
Remarks for North-Central Oklahoma (Former Farmland Feedmill Site)

• Restriction on groundwater use due to nitrate contamination. Nitrate concentrations exceed drinking water standards. Therefore, drinking water wells should not be constructed in this area. See DEQ-Water Quality Division for location details.
Proposed Oklahoma Additional Appendix H Sites
Existing sites in blue; Red circles highlight new sites
Vanoss Group – Hudson
(Hudson Refinery Superfund Site)

- Location: NE ¼ of NW 1/4 of Section 4, T 17 N, R 5 EIM and SW ¼ of Section 33, T 18 N, R 5 EIM
- Remarks: Restriction on groundwater use due to Hydrocarbon contamination.
- Deed notices have been filed in county land records prohibiting the use of groundwater for any purpose
Proposed Oklahoma Additional Appendix H Sites
Existing sites in blue; Red circles highlight new sites
North-Central Oklahoma – Blackwell
(Blackwell Zinc Company (BZC) Site)

- Location: Portions of Sections 14, 15, 16, 21, 22, 23, 26, 27 and 28 of T27N-R1W. Bounded by 500 ft. north of Doolin Avenue (on north), Adams (on South), 21st Street (on West) and 200 ft. E of Main Street (on East)
- Remarks: Restriction on groundwater use due to Cadmium and Zinc contamination.
- City Ordinance No. 2801 has been passed by the City of Blackwell prohibiting installation of ground water wells within the ground water protection area due to cadmium, and zinc contamination due to historic smelter operations. The Groundwater Protection Area is based on a Cadmium 0.005 mg/l concentration isopleth line plus a 300-foot buffer zone
ORDINANCE OF THE CITY OF BLACKWELL, AMENDING THE BLACKWELL CODE OF ORDINANCES TO ADOPT A NEW CHAPTER 9, INSTITUTIONAL CONTROL REGULATIONS, TO PROVIDE FOR GENERAL PROVISIONS, DEFINITIONS, STANDARDS FOR SOIL MANAGEMENT, SOIL DISTURBANCE ACTIVITY PERMITS, GROUNDWATER PROTECTION AREA STANDARDS, ADMINISTRATOR DUTIES AND POWERS, ENFORCEMENT, PROVIDING FOR REPEALER, SEVERABILITY AND DECLARING EMERGENCIES.

Section 1: A new Chapter 9: Institutional Control Regulations is hereby adopted as follows:

SECTION 9 GENERAL

(a) Scope. This Appendix ______ shall apply to all property located within the municipal limits of the City of Blackwell (the "City") whether such property is public or private (the "District").

(b) Purpose. The District is created in response to historical releases of hazardous substances associated with operations at the Blackwell Zinc Smelter, which was formerly located in the northwest part of the City. These institutional control regulations governing land use and the handling of soil, visible smelter material and groundwater in the District are intended:

(i) to prevent recontamination of remediated and non-contaminated areas;
(ii) to protect the health and safety of persons within the District;
(iii) to identify and isolate contaminated soil, visible smelter material and contaminated groundwater;
(iv) to control the movement, handling and disposal of contaminated soil, visible smelter material and contaminated groundwater; and
(v) to record soil quality and remediation data in the District.

This Appendix is intended to comply with the institutional control requirements in accordance with the Consent Agreement and Final Order dated December 17, 1992 (the "CAFC"), by and among the Oklahoma Department of Environmental Quality ("DEQ"), Blackwell Zinc Company ("BZC"), the Blackwell Industrial Authority and the City, as an intervenor, the DEQ Record of Decision, Soil Remediation Unit, Blackwell Zinc Site (April 4, 1996) (the "Soil ROD"), the DEQ Record of Decision, Ecological Remediation Unit, Blackwell Zinc Site (April 24, 1996), and the DEQ Record of Decision, Groundwater Remediation Unit, Blackwell Zinc Site (August 15, 2003).

(c) Interpretation. It is recognized that this Appendix cannot describe and address all possible situations which might arise with respect to managing contaminated soil, visible smelter material and groundwater. Therefore, the City shall have the authority to render interpretations of these institutional control regulations and to adopt clarifying policies and procedures.
and elevations of proposed landscape alterations and existing and proposed structures. Additionally, the following information may be required by the Environmental Technician based upon the specific circumstances of the proposed activity and property:

(1) Analytical results for Representative Samples from all areas of the property affected by the soil disturbance activity. Or, the applicant may submit a soil handling plan that assumes all soil involved in the planned soil disturbance is Regulated Soil.

(2) A description of how the applicant will ensure the proper control, reuse and disposal of Excess Soil involved in the planned soil disturbance activity. This description shall identify how the Excess Soil will be managed and/or disposed.

(c) Action by the Environmental Technician. Within twenty (20) days after receiving a properly completed application, the Environmental Technician shall review the application, and the Environmental Technician shall (1) approve the application, (2) approve the application with conditions, or (3) deny the application. The review shall be based on all of the provisions of this Appendix. If the Environmental Technician denies the permit application, the applicant shall have ten (10) days from the date of denial to appeal the denial to the City Council.

(d) Action by City Council. In instances where the applicant appeals the denial of or conditioning of an application by the Environmental Technician, the City Council shall review the denied or conditioned application together with any recommendations from the Environmental Technician. The City Council shall then (1) approve the application, (2) approve the application with conditions, or (3) deny the application. Prior to the City Council making any action, the applicant shall be notified of the date the applicant is to appear on the City Council agenda in a public forum. The City Council may hear presentations from interested parties and shall judge the application by the provisions and standards of this Appendix.

(e) Termination of Permit. A soil disturbance activity permit shall be terminated after the Environmental Technician determines that the permittee has fulfilled all permit requirements. The Environmental Technician shall provide written notice of termination to the permittee.

(f) Records and Reports. The Environmental Technician shall maintain or have access to a database of all soil sampling results (or a database maintained by Freepot), a record of all properties remediated in accordance with the DSQ soil remedy, a record of all soil disturbance activity permits issued, and whether the permits are active or terminated. Failure by Freepot to adequately and timely maintain, update and/or provide access to the Environmental Technician shall be grounds, at the City's sole discretion, to defer or suspend the enforcement of this Ordinance.

SECTION 9.5 GROUNDWATER PROTECTION AREA STANDARDS

(a) Prohibited Activities. The following conditions apply in the Groundwater Protection Area:

(1) No Groundwater Well is allowed other than a Groundwater Remediation Structure; and

(2) Constructing, drilling, installing or operating a Groundwater Well is not allowed other than a Groundwater Remediation Structure.
(b) **Groundwater Management.** Written approval from the Environmental Technician shall be required before Groundwater may be removed from any excavation located within the Groundwater Protection Area. Any Groundwater that is removed from an excavation located with the Groundwater Protection Area shall be managed in accordance with all local, state and federal laws.

(c) **Rain and Other Water.** Efforts should be made to keep rain and other water from entering excavated areas within the Groundwater Protection Area. Rain and other water that enters a dry excavation may be pumped out of the excavation without further restrictions on the management of the water, so long as such water is managed in accordance with all local, state and federal laws.

(d) **Boundary Modification.** The boundary for the Groundwater Protection Area may be modified with approval from DEQ. Any modification of the boundary of the Groundwater Protection Area shall be based on data collected as part of the approved monitoring plan for the DEQ groundwater remedy. Figure 3 to this Appendix shall be updated to reflect any approved modification to the boundary of the Groundwater Protection Area.

**SECTION 9.6 ADMINISTRATOR DUTIES, POWERS**

The Environmental Technician is appointed to implement and administer the provisions of this Appendix. Duties and responsibilities of the Environmental Technician shall include but not be limited to:

1. Maintaining records of all soil sampling performed within the District, including sample locations and analytical results.

2. Maintaining records of all properties within the District that have been remediated in accordance with the DEQ soil remedy.

3. Reviewing, approving or denying applications for a soil disturbance activity permit required under this Appendix.

4. Reviewing permits for any proposed excavation, development or land use within the District to assure that all necessary permits, including a soil disturbance activity permit, have been obtained from those federal, state or local governmental agencies from which prior approval is required.

5. Maintaining and holding open for public inspection all soil disturbance activity permits issued in accordance with this Appendix.

6. Conducting soil sampling, in its sole discretion, and/or interpreting soil sampling results to determine the concentrations of arsenic, lead or cadmium in soil on any property with the District.

7. Taking actions as necessary pursuant to this Appendix to assure that the integrity and maintenance of remediation efforts within the District are not diminished or compromised.

8. Performing inspections and surveillance of all property within the District to identify any activity that is not in compliance with the provisions of this Appendix.
CONCENTRATION ISOPLETH MAY MOVE OVER TIME.
GROUNDWATER PROTECTION AREA IS BASED ON ISOPLETH
PLUS 300-FOOT BUFFER ZONE
QUESTIONS?