KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
FINAL CORRECTIVE ACTION DECISION
NORTH INDUSTRIAL CORRIDOR SITE
WICHITA, KANSAS

DECLARATION OF CORRECTIVE ACTION DECISION

SITE NAME AND LOCATION

North Industrial Corridor Site
Wichita, Sedgwick County, Kansas

STATEMENT OF BASIS AND PURPOSE

The Final Corrective Action Decision for Interim Groundwater Remediation presents the corrective action selected by the Kansas Department of Health and Environment (KDHE) for the North Industrial Corridor (NIC) Site located in Wichita, Kansas. The Remedial Investigation (RI) at the site determined that the primary contaminants of concern which include but are not limited to tetrachloroethene, trichloroethene, cis-1,2-dichloroethene, 1,1-dichloroethane, 1,1-dichloroethene, carbon tetrachloride, chloroform, and benzene are present at elevated concentrations in groundwater at the Site, exceeding the federal Maximum Contaminant Levels and corresponding KDHE Tier 2 risk-based screening levels for the groundwater pathway.

During the RI, confirmed, identified, and suspected source areas were identified within the NIC Site that have or may have resulted in groundwater contamination. Parties responsible for causing contamination retain responsibility for addressing contamination in the source areas. At present, KDHE and/or the EPA has worked or is working with potentially responsible parties (PRPs) to evaluate and remedy environmental contamination through individual agreements or orders at 18 such sites. Although source area remedial actions will be the subject of future decision documents, KDHE's general expectation for source area remedial actions is that they address all contamination at the subject property and address contamination which has migrated away from the facility that remains at concentrations well in excess of applicable threshold levels.

Based on RI findings, the City of Wichita proposed to divide the NIC Site into six groundwater units (GWUs) to streamline the evaluation and eventual selection of remedial actions for the NIC Site. The six GWUs are defined as follows: GWU-1 in the northeastern part of the site; GWU-2 in the northwestern part of the site; GWU-3 in the southeastern part of the site; GWU-4 in the southwestern part of the site; GWU-5 which consists of the former Coastal Derby Refinery near the center of the site; and GWU-6 which consists of the Unified School District 259 School Service Center in the north-central part of the site.

The Feasibility Study (FS) focused on the evaluation of various remedial action alternatives to address groundwater contamination within GWUs 1 through 4 at the site. Remedial

alternatives for GWUs 5 and 6 will be the subject of separate FSs and decision documents. The remedial actions selected for the site to address groundwater contamination within GWUs 1 through 4 were developed on the basis of documents and information contained in the Administrative Record File.

DESCRIPTION OF THE SELECTED REMEDIAL ACTIONS

KDHE has determined that the selected corrective action for groundwater remediation, as described and evaluated in the Final Corrective Action Decision, meets the criteria established for selection and will be protective of human health and the environment. While the FS and Final Corrective Action Decision evaluate remedial action alternatives on a GWU basis, the preferred remedial actions selected for groundwater remediation at the NIC Site include the following common elements:

- **Pre-design Data Acquisition – For each GWU, pre-design data acquisition activities will be conducted to optimize the selected remedy and evaluate the need for contingency implementation.**
- **Long-term Groundwater and Surface Water Monitoring – A comprehensive groundwater and surface water monitoring plan will be developed to evaluate the performance of the preferred remedy and monitor contaminant migration.**
- **Five-year Reviews – Five-year reviews will be conducted as long as contamination remains at the NIC Site at concentrations above levels which would permit unrestricted use. These reviews provide an opportunity to review the overall protectiveness and effectiveness of the remedial strategy.**
- **Institutional controls – Continued enforcement of City of Wichita Ordinance which prohibits the installation of new and use of pre-existing water wells for personal use in contaminated areas will help ensure protection of human health until site cleanup is complete.**

The preferred remedial actions selected for groundwater remediation for each GWU are as follows:

For GWU-1, Source Abatement and MNA, with a groundwater extraction and treatment contingency is KDHE's preferred remedy and may facilitate groundwater restoration within a reasonable timeframe although additional data are needed to fully support this determination. For this reason, a rigorous MNA assessment consistent with KDHE and EPA guidance, for a period not to exceed two years, is incorporated into the remedial design phase for GWU-1. If the data collected during the assessment indicate that MNA is not effective at reducing contaminant concentrations throughout the groundwater unit or does not preclude further contaminant migration, the contingency will be implemented. In addition, during the MNA assessment, additional sampling will be performed east of the East Fork of Chisholm Creek to determine the magnitude and extent of contamination in this area. Should the investigation find contamination in the area east of the Creek, enhanced anaerobic bioremediation will be implemented as a contingency to restore groundwater and preclude further contaminant migration. With consideration of

identified contingencies, this remedy is protective of human health and the environment and satisfies regulatory requirements.

For GWU-2, Source Abatement and Groundwater Extraction and Treatment, is KDHE's preferred remedy. Contaminated groundwater will be pumped to a new treatment plant where it will be treated by air stripping before being discharged to Chisholm Creek under a National Pollutant Discharge Elimination System permit. During the remedial design phase, a detailed groundwater investigation in the area east of Chisholm Creek will be conducted. Should the investigation find contamination in the area east of the Creek, enhanced anaerobic bioremediation will be used as a contingency to restore groundwater and preclude further contaminant migration. In addition, depending on the effectiveness of the proposed remedy during the initial operational period, additional extraction wells may be installed as a contingency. With consideration of identified contingencies, this remedy is protective of human health and the environment and satisfies regulatory requirements.

For GWU-3, Source Abatement and Groundwater Extraction and Treatment, is KDHE's preferred remedy. This remedy provides hydraulic containment at the southern NIC Site boundary and in-plume treatment for mass removal. In the event that surface water monitoring in Chisholm Creek shows contaminant levels attributable to NIC Site groundwater exceeding the designated uses concentration limits within the creek, additional contingency extraction wells will be installed to provide additional plume control. With consideration of identified contingencies, this remedy is protective of human health and the environment and satisfies regulatory requirements.

For GWU-4, Groundwater Extraction and Treatment is KDHE's preferred remedy. This remedy includes source abatement, and provides hydraulic containment of the GWU-4 plume at the southern NIC site boundary. Depending on future monitoring data, a contingency for an additional recovery well(s) may be implemented. With consideration of identified contingencies, this remedy is protective of human health and the environment and satisfies regulatory requirements.

The Final Corrective Action Decision does not identify KDHE's preferred remedy for GWU-5 and GWU-6. Separate decision documents for these GWUs will be developed upon completion of the FSs.

The total net present value cost for implementation of KDHE's preferred remedy for groundwater remediation is $29,200,076. This amount does not include costs associated with source control efforts, pre-design acquisition, or contingency implementation.

DECLARATION

The selected remedial actions are protective of human health and the environment; attain state, federal and local requirements that are applicable or relevant and appropriate to this corrective action; and, provide cost-effective performance. The remedial actions will prevent exposure to groundwater that is contaminated above acceptable levels; prevent

contaminant migration and reduce contaminant mobility; and restore groundwater to allow for its most beneficial uses at the North Industrial Corridor Site. In selecting and declaring this corrective action, KDHE believes implementation of the remedial actions will have a beneficial effect on heath and the environment.

Robert Moser
Secretary

3/28/2012
Date

Attachment: Final Corrective Action Decision