

Voluntary Cleanup and Property Redevelopment Program Manual



Kansas Department of Health and Environment
Division of Environment
Bureau of Environmental Remediation

June 30, 2011

To protect the health and environment of all Kansans by promoting responsible choices.

If you have general questions, please contact the Bureau of Environmental Remediation at the address shown below. The Voluntary Cleanup Application Form and other associated documents may be obtained by contacting KDHE's office or may be downloaded from the KDHE/Bureau of Environmental Remediation/Remedial Section website at:

<http://www.kdheks.gov/remedial/vcp/>

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Voluntary Cleanup and Property Redevelopment Program
<http://www.kdheks.gov/remedial/vcp/index.html>

KDHE's Identified Sites List
http://www.kdheks.gov/remedial/isl_disclaimer.htm

KDHE's Risk-based Standards for Kansas Manual
http://www.kdheks.gov/remedial/rsk_manual_page.htm

KDHE's Environmental Remediation Policies
<http://www.kdheks.gov/ber/policies.htm>

KDHE's Field Activities Notification Form
http://www.kdheks.gov/remedial/fieldactivities_notification.html

KDHE's State Cooperative Program
<http://www.kdheks.gov/remedial/scu/index.html>

KDHE's Brownfields Program
<http://www.kdheks.gov/brownfields/index.html>

KDHE's Environmental Use Control Program
<http://www.kdheks.gov/remedial/vcp/euc.html>

Kansas Agricultural Remediation Board
<http://www.karb.org>

US Environmental Protection Agency, Region VII
<http://www.epa.gov/aboutepa/region7.html>

KDHE Laboratory Accreditation (Certified Labs)
<http://www.kdheks.gov/envlab/index.html>

SW-846 Online (Analytical Methods Reference)
<http://www.epa.gov/epawaste/hazard/testmethods/index.htm>

Kansas State Board of Technical Professions (Licensing of Professional Engineers and Geologists)
<http://www.accesskansas.org/ksbtp/>

Contaminated Site Clean-up Information
<http://www.clu-in.org/>

Interstate Technology and Regulatory Council (ITRC)
<http://www.itrcweb.org/homepage.asp>

BER	Bureau of Environmental Remediation
BTA	Brownfields Targeted Assessment
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
EPA	U. S. Environmental Protection Agency
EUC	Environmental Use Control
EUCA	Environmental Use Control Agreement
HASP	Health and Safety Plan
KARB	Kansas Agricultural Remediation Board
KDHE	Kansas Department of Health and Environment
MOA	Memorandum of Agreement
OSHA	Occupational Health and Safety Administration
QAPP	Quality Assurance Project Plan
QA/QC	Quality Assurance/Quality Control
RCRA	Resource Conservation and Recovery Act
RSK	Risk-based Standards for Kansas
SOP	Standard Operating Procedure
VCI	Voluntary Cleanup Investigation
VCPRP	Voluntary Cleanup and Property Redevelopment Program

The Voluntary Cleanup and Property Redevelopment Program (VCPRP) was created in 1997 to implement the Voluntary Cleanup and Property Redevelopment Act. It is administered by the Kansas Department of Health and Environment (KDHE) Bureau of Environmental Remediation (BER). The program allows owners, developers, prospective purchasers, and other eligible parties to voluntarily address environmental issues associated with buying, selling, reusing and/or redeveloping contaminated properties. Properties eligible for the VCPRP are considered low to moderate priority that generally do not represent an immediate danger to human health or the environment. KDHE staff provides technical guidance and issues "No Further Action" determination letters once appropriate cleanup activities are completed.

Participation in the program is voluntary and the voluntary party may withdraw at any time provided that the property's condition, from a human health and environmental perspective, is no worse than before. Participants follow a clearly defined assessment and cleanup process which is streamlined and promotes property reuse, redevelopment, or improvement. Cleanup costs, time, and effort can be determined in advance. The VCPRP is designed to benefit owners, real estate purchasers, developers, and lending institutions while also benefiting the environment and public interest.

The Voluntary Cleanup and Property Redevelopment Act became law on July 1, 1997 (Kansas Statutes Annotated 65-34,161 through 65-34,174). Rules and regulations to implement the law were adopted on June 26, 1998 (Kansas Administrative Regulations 28-71-1 through 28-71-12). Copies of the statutes and regulations can be found in Appendices I and J.



Prospective buyers and lenders often require an environmental assessment before deciding to purchase a property. The VCPRP provides a way to identify and address contamination that preserves property values and promotes redevelopment. This solution benefits buyers, sellers, lenders, and communities.

"No Further Action" Determination Letter

- Provides some liability relief for known contamination.
- Can be offered to adjacent property owners if the contamination is determined to be migrating from an offsite source, and the source is also enrolled in an appropriate program.
- Federal liability relief assurance is provided through a Memorandum of Agreement (MOA) signed by KDHE and the Environmental Protection Agency (EPA) on March 2, 2001. A copy of the MOA can be found in Appendix H.



Application

Applicant submits a VCPRP application and a \$200 fee.



Voluntary Agreement

A signed voluntary agreement and an initial deposit of up to \$5000 is submitted.
KDHE determines if a Voluntary Investigation is needed.



Choosing a Consultant and Laboratory

Evaluating consultant and laboratory qualifications.



Voluntary Cleanup Investigation

Identify contamination sources.
Delineate contaminated areas.
Report reviewed and approved by KDHE.



Interim Remedial Measures

Interim cleanup actions can be taken during any phase of the VCPRP process to remove or contain a contamination source.



Voluntary Cleanup Proposal

Propose cleanup alternatives.
Proposal reviewed and approved by KDHE.



Voluntary Cleanup Plan

Public notice and participation.
Plan reviewed and approved by KDHE.



Voluntary Cleanup Implementation

Verification sampling.
Cleanup report reviewed and approved by KDHE.
Environmental Use Control implemented, if needed.



Project Closure

“No Further Action” determination letter issued.



Application

To apply for the VCPRP, submit a completed application package to the VCPRP Coordinator. The package should include:

- ☑ A completed application form (see Appendix C).
- ☑ A non-refundable \$200 application fee.
- ☑ All available supporting documentation, including environmental assessment reports and other documents requested by KDHE.

KDHE may also review its own files for any scientific or technical information applicable to the property or neighboring properties.

KDHE will review the application within 60 days after receiving the completed package, and will inform the applicant in writing whether the property is eligible for the VCPRP. If so, KDHE will include a standardized voluntary agreement for the applicant to sign and return.

Incomplete applications may be returned for revisions or corrections. It is important to complete the application package accurately the first time or upon the first revision. A second revision will not be reviewed without an additional non-refundable application fee of \$200.

After acceptance, the applicant is referred to as the "voluntary party."

Completed applications should be sent to:

VCPRP Coordinator
Kansas Department of Health
and Environment
Bureau of Environmental
Remediation
1000 SW Jackson, Suite 410
Topeka, Kansas 66612-1367

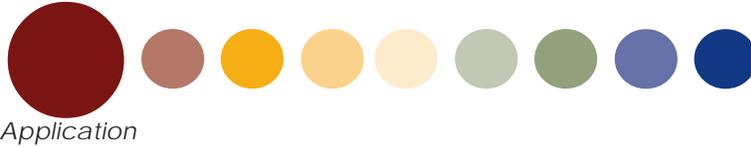


This property, impacted by an abandoned trailer with deteriorated containers of used oil, was referred to the VCPRP through a citizen complaint.



Properties with known or potential environmental conditions are referred to the VCPRP from many sources.

- Accidental spills of chemicals or materials.
- Due diligence assessments performed prior to property transactions.
- Assessments performed by the Kansas Brownfields Program.
- Sites referred to the program from other KDHE sections, such as a district office or another Bureau.
- Citizen concerns or complaints.



The primary reason for performing an environmental assessment is to determine whether significant contamination does or does not exist on a property. Environmental assessments are often required by the buyer or lender as “due diligence” in a real estate transaction because contamination may have been left by past operations or practices that left chemicals or waste materials. Environmental assessments are useful for providing preliminary information and must be submitted to KDHE along with the completed application package.

Assessments are usually performed in phases, each successive phase more detailed than the last.

Phase I Assessment

- Includes a property records search and inspection.
- Determines the likelihood of significant contamination.

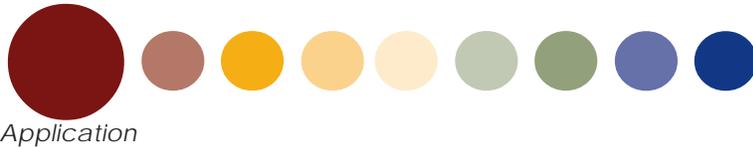
Phase II Assessment

- Collects and analyzes soil and water samples.
- Confirms the presence or absence of contamination.

Assessments submitted for consideration by the VCPRP must be prepared by a qualified environmental professional and conform to federal standards for “All Appropriate Inquiries.” Submitted assessments must include:

- A legal description and map identifying the property location, boundaries, and size.
- A physical description of the property and nearby areas, including any surface water bodies and groundwater aquifers.
- A list of water wells on or within a half-mile of the property, and how they are used.
- A history of how the property has been used over time and the current use of adjacent areas.
- Present and proposed uses of the property.
- Information concerning the nature and extent of any contamination, and releases of contaminants at or in the vicinity of the property.
- Any sampling results or other data with respect to soil, groundwater, or surface water.
- A description of potential human and environmental exposures to contamination based upon the property’s current or future use.

Environmental assessments performed before applying to the VCPRP must be submitted with the application package.



Eligible applicants include any person, corporation, non-profit, or unit of government that has title to, control of, or access to a property with threatened, suspected, or known environmental contamination.

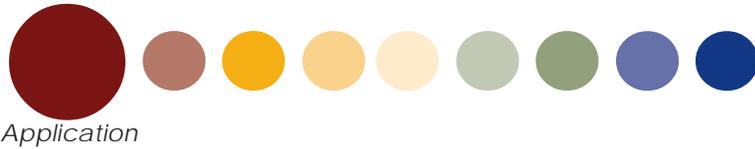
KDHE has 60 days after receiving the completed application package to inform the applicant in writing whether the property is eligible for the VCPRP. To determine eligibility, KDHE may review information in its own files about the property and surrounding properties, as well as the information submitted with the application package.

Properties that are eligible to participate in the VCPRP:

- Have levels of contamination that do not pose an imminent threat to human health or the environment.
- Are owned, controlled, or can be accessed by the voluntary party.
- Includes properties in which the source of the contamination is off-site, or the source or extent of contamination is not yet known.
- Are not eligible for reimbursement under a trust fund program.
- Includes properties that have been subject to a catastrophic release after the emergency response has been completed.
- May include residential properties affected by a release of hazardous material.

Properties that are NOT eligible to participate in the VCPRP may:

- Be listed or proposed for listing on the federal National Priorities List (Superfund).
- Be under an existing environmental enforcement action, order, or agreement with a local, state, or federal government agency.
- Have or should have a Resource, Conservation, and Recovery Act permit containing a corrective action component.
- Have been contaminated by oil and gas activities regulated by the Kansas Corporation Commission.
- Present an immediate and significant risk to human health and the environment, including risk to public and private drinking water supplies.



KDHE determines a property’s contamination classification by examining the information provided with the application, and also by conducting a regulatory review.

KDHE will inform the applicant of the property’s eligibility and contamination classification in writing. The classification system provides flexibility when dealing with properties with varying levels of contamination. Each classification level is subject to a defined investigative scope of work developed by KDHE. These scopes of work are provided in Appendix F.

KDHE may re-evaluate the classification at any time in response to information gathered during the Voluntary Cleanup process.

Class I

A property that has suspected or confirmed contamination, but is not a source of contamination.

A Class I property is typically impacted by contamination which originates from another property and is being addressed by an appropriate state response program. For example, a Phase I environmental assessment indicated groundwater contamination at a retail shopping center, but no on-site contamination sources were identified. The regulatory review identified known environmental sites in the area with contaminants similar to those impacting the subject property.



Class I Example, Above: Groundwater under this shopping center was impacted by contamination migrating from a nearby former chrome plating facility.

Class II

A property with suspected or confirmed soil contamination that is not migrating off the property, and without groundwater contamination.

A Class II property has soil contamination, typically from past operations on the property. An example would be a former zinc smelter where decades ago decaying factory structures and smelter waste was left behind when the industry closed. Groundwater is not impacted in Class II properties.



Class II Example, Below: This property is a former zinc smelter which contaminated the soil, but not the groundwater, with heavy metals.



Class III Example: Both soil and groundwater were contaminated by spilled automotive fluids at this former auto shop. The VCI confirmed the contamination had not migrated.

Class III

A property with suspected or confirmed soil and groundwater contamination that does not migrate off-property.

In a Class III property, soil and groundwater are both impacted by past operations at the property. For example, a due diligence assessment of an auto repair facility indicated past operations had left soil and groundwater contamination. The impacts were located in the central part of the property localized to the site .

Class IV

A property with suspected or confirmed soil and groundwater contamination both on and off the property.

A Class IV property has both soil and groundwater contamination; however, the contamination is also migrating off-site. When a diesel fuel pipeline located in a residential area was ruptured, not only were the soil and groundwater immediately adjacent to the rupture impacted, fuel also flowed into a small nearby creek through residential neighborhoods.



Class IV Example: Diesel fuel from this ruptured pipeline flowed into a creek and was carried off-site past a number of residences.



Application

The VCPRP coordinates with other federal and state programs to ensure the best outcome for each contaminated property. Upon reviewing the application, KDHE may direct the applicant to another, more appropriate program. For example, a site that is eligible for reimbursement through one of KDHE’s Trust Fund programs will be directed to that program; if it is worked through the VCPRP it will not be reimbursed.

The **Petroleum Storage Tank Release Trust Fund** provides financial assistance for facilities where contamination from underground and aboveground petroleum storage tanks has occurred. Information on eligible entities and how to apply is available at http://www.kdheks.gov/tanks/trust_fund/index.html.

The **Kansas Dry Cleaning Trust Fund** provides up to \$5,000,000 to remediate contamination released from a dry-cleaning facility. More information about this fund is available at http://www.kdheks.gov/dryclean/dryclean_trust_fund.htm.

The **Brownfields Program** provides funding and technical assistance to local governments, not-for-profits and other eligible parties to investigate properties prior to their redevelopment. Please read about the Brownfields Program in Appendix B and at <http://www.kdheks.gov/brownfields/index.html>.

The **Environmental Use Control (EUC) Program** applies institutional controls to properties where residual contamination may remain after remedial activities have been completed. The EUC Program is often used together with the VCPRP to manage contamination in ways that protect the property owner and the public. A detailed description of the EUC Program is in Appendix B, and more information is available at <http://www.kdheks.gov/remedial/vcp/euc.html>.

The **Kansas Agricultural Remediation Board (KARB)** may provide partial reimbursement to agricultural service facilities for investigation and remediation at eligible properties. KARB is also discussed in Appendix B. The website can be found at <http://www.karb.org/>.



The Voluntary Agreement is non-negotiable and must be signed by the applicant and the Secretary of KDHE before any work can be done under the VCPRP. The Voluntary Agreement is also non-binding, meaning that the voluntary party can terminate the agreement at any time, as long as the environmental conditions on the property are no worse than when the application was initially submitted.

The applicant must provide an initial deposit paid to KDHE before VCPRP work can begin. The amount of the deposit is determined by the contaminant classification. If the applicant enters a number of properties in the program, KDHE can provide some flexibility as to the total amount of the deposit; questions about grouped properties should be directed to the VCPRP Coordinator.

Initial Deposit by Class

- Class I: \$1,000
- Class II: \$3,000
- Class III: \$4,000
- Class IV: \$5,000

KDHE can set up billing for oversight costs, which involves an initial deposit and quarterly invoices. An applicant must have at least \$1,000 in the deposit account to be considered for quarterly billing. KDHE will refund the unused deposit balance within 60 days after mutual termination of the Voluntary Agreement.

The VCPRP is a “pay to use” program, meaning voluntary parties pay for KDHE’s oversight of program requirements. Oversight activities include:

- reviewing documents, studies, and test results
- necessary administrative decision making
- collecting confirmatory, duplicate soil and/or water samples
- visits to the property
- verification activities
- associated indirect costs

Indirect cost rates are based on departmental policy and are currently established at a rate of 22% for VCPRP oversight. Indirect rates are collected to cover departmental overhead costs and may be periodically subject to minor adjustments.



Voluntary Agreement

Once the Voluntary Agreement has been executed, KDHE will review the site information and determine if further action is needed. Staff may refer to information provided by the voluntary party, information in KDHE's files, site reconnaissance, and other information sources. One of four determinations will be made:

- A Voluntary Cleanup Investigation (VCI) is required to adequately characterize the contamination.
- There is enough investigative data and a Voluntary Cleanup Proposal/Plan should be developed to address known contamination.
- The property should be referred to another state or federal program to manage necessary cleanup.
- No further action is required.



An old stove manufacturing complex, with buildings dating from the early 20th century, was slated for redevelopment. Site assessments and a VCI identified metals and hydrocarbon contamination in the upper three feet of soil in the courtyard between the buildings. Here the contaminated soil is being excavated and replaced with clean dirt as part of the cleanup plan.





Choosing a Consultant and Laboratory



Choose trained and qualified environmental professionals with experience in the appropriate assessment and cleanup work to save time, money, and headaches.

Selecting a qualified environmental consultant is an important first step. Skills and qualifications can vary widely from one consultant to another. The consultant’s experience, capability, understanding of the project, and track record are key considerations.

KDHE can provide a comprehensive list of environmental consultants upon request. The voluntary party should carefully interview several consultants and ask each for an estimate of how much the work will cost before selecting one. The right consultant will save time, money, and stress.

Benefits of selecting a qualified and experienced consultant include:

- Saving time and money
- Satisfactorily completing projects the first time
- Reducing the chance of surprises
- Establishing better relationships with regulatory agencies
- Investigations and reports are completed on time
- The voluntary party, the consultant, and KDHE are satisfied with the final outcome

“Red flags” to watch out for.

- Cost estimates are significantly lower than those of competing firms
- Hard-sell approaches
- Minimizing or maximizing potential technical or legal problems
- Strong biases for or against certain cleanup remedies
- Not licensed in Kansas
- Lack of experience working with KDHE regulatory programs
- Conflicts of interest
- Overly optimistic timelines

Cost plus fixed fee contract. The most common type of contract. The consultant charges for salaries and expenses plus a negotiated fixed fee. This method works well for projects where the scope is unclear, extensive investigation is needed, or experimental processes are used.

Fixed price contract. The consultant will charge a specific sum for the entire project. This method is generally used for small projects or when the scope is clearly defined.

Whichever type of contract you choose, you should set up clear, specific criteria for comparing cost estimates.



*Choosing a Consultant and
Laboratory*

Step 1: Understand the Project

You should understand, to the best of your ability, the scope of your project and the regulatory and practical factors involved in completing it. VCPRP staff are always available to answer any questions about the project that will help you select your consultant.

Step 2: Create a List

Create a list of prospective consultants. You can do an internet search, get recommendations from other companies that have done similar work, or check the yellow pages for the nearest city. KDHE can also provide you with a comprehensive list of consultants. A consultant's webpage should tell you about the company's capabilities and experience. Contact a few consultants and ask them about:

- The type of environmental work they do
- Kinds of services offered
- Number and type of staff
- Years in business
- Number of projects completed in Kansas
- The largest project in the last five years
- Typical response time in the event of an emergency
- Confirmation of appropriate insurance and bondable status
- Estimated annual revenues
- Banking references
- Experience working with KDHE environmental programs





Choosing a Consultant and
Laboratory

Step 3: Request Proposals

Once you have a list of consultants that appear qualified and interested in your project, give them a brief written description of the property, its current and historical use, and the work that you think needs to be done. Request a proposal which includes:

- Possible procedures for investigation or cleanup of the property
- Amount of time needed for completion (not including time required for KDHE’s review)
- Cost estimate
- Itemized fee schedule
- Summary of experience applicable to the property, including the client’s name and address
- Names of staff that would be assigned to the project, including their current resumes

Step 4: Check References

Get references from companies that have worked with the consultant in the past or at present. Ask them questions like:

- Are the properties similar?
- Was the consultant knowledgeable about the investigation and cleanup?
- Did the consultant meet the stated deadlines?
- Did the consultant keep you updated on the work and all available investigative and cleanup options?
- Did you trust the consultant?
- Were any problems satisfactorily resolved?
- Did the consultant work effectively with KDHE staff, local officials, and you?
- Were you satisfied with the work?
- Did the final costs seem in line with the original estimate?





*Choosing a Consultant and
Laboratory*

Step 5: The Short List

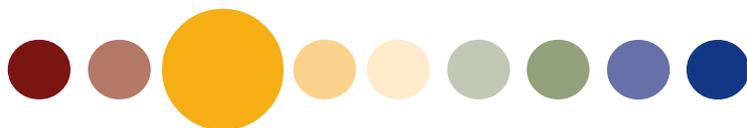
You should now have a short list of consultants to interview. The interviews should be used to discuss their proposals in detail and evaluate their qualifications in depth. Questions to consider include:

- Is the consulting company licensed by the Kansas State Board of Technical Professions?
- Will the person in charge of the project be a Kansas Licensed Professional Engineer or Geologist?
- Does the consultant have experience with your kind of project?
- Is the consultant's staff trained to use field instruments and procedures?
- Which procedures does the consultant conduct and which do they subcontract? (Ask for names of subcontractors and check on their experience.)
- Are subcontractor activities competitively bid?
- How will the consultant charge for subcontractor's management costs? (It should be by hourly rate or percentage of fees, not both.)
- Will the consultant use a KDHE certified laboratory?
- What projects has the consultant completed in Kansas?
- Does the consultant have established Standard Operating Procedures (SOPs) for sampling and other tasks?
- Do the consultant and the subcontractor have professional and environmental liability insurance?
- What is the consultant's current workload? Are current projects on schedule?
- Is the consultant's field staff trained in safety procedures as required by the Occupational Safety and Health Administration (OSHA)?
- Which specific employees will work on your project and do they have relevant experience?
- Does the consultant have references?

Step 6: Selection

The final step is to select the right consultant for your project based on all the information gathered in the previous steps. Making the right decision now will move the project forward and ultimately save you time and money.





Choosing a Consultant and
Laboratory



Quality environmental samples are expensive and time consuming to collect and need to be properly analyzed to be useful. Choose a laboratory with experience analyzing the type of samples collected during your project and certified by KDHE. The KDHE Laboratory Improvement Program Office maintains a list of National Environmental Laboratory Accreditation Conference accredited laboratories at <http://www.kdheks.gov/envlab/disclaimer.html>. Ask your consultant which laboratories they have worked with in the past. Larger consultants may already have a low-cost contract with one accredited laboratory and may include these costs in their proposal.

If you want to select a laboratory on your own, contact several accredited commercial laboratories and ask them:

- Can the laboratory analyze the media of concern (soil, groundwater) for the known or suspected contaminants?
- How many samples can the laboratory handle within the holding time limits? Will this work for the number of samples your project will collect?
- Can the consultant transport or ship the samples to the laboratory within the holding limits for the various samples to be collected?
- Does the laboratory have any special requirements for your samples and can the consultant collect, preserve, and transport samples to meet those requirements?
- Does the laboratory's reporting schedule meet the project schedule and data needs?
- What will the analyses cost?



Voluntary Cleanup Investigation

The purpose of a VCI is to validate existing environmental information for the property and provide additional information so that KDHE can properly evaluate both the contamination and the risk it poses to human health and the environment. The investigation provides all the necessary data to confirm the nature, source, and extent of existing contamination; determine the risk and identify receptors; and support cleanup planning. The steps involved in performing a VCI include:

- Selecting a qualified environmental consultant and certified laboratory.
- Creating a VCI work plan that meets with KDHE approval.
- Conducting sampling and analysis that support VCI objectives.
- Submitting a VCI report to KDHE documenting the investigation results.

In general, it is not necessary to repeat work already done for an environmental assessment that has been adequately performed. Rather, the VCI should supplement the existing data in ways that support appropriate decision making. In some cases, where the previous investigation was performed without KDHE oversight, KDHE may request some limited verification sampling to confirm the accuracy of the existing data.

Each contaminant class has a defined scope of work. The consultant chosen by the voluntary party should develop a VCI work plan based on the appropriate scope of work. Scope of work, work plan, and report formats are included in Appendix F. The VCI work plan must include a project schedule, a Quality Assurance Project Plan (QAPP), and a Health and Safety Plan (HASP). Qualified environmental consultants will most likely have standardized QAPPs and HASPs that can be modified to meet the needs of the project.

VCI Objectives

- Identify and investigate contaminant sources.
- Determine the vertical and horizontal extent of contamination for each impacted media.
- Identify human health and environmental receptors.
- Evaluate potential risks and impacts to those receptors.
- Maintain quality assurance and quality control standards.

The VCI **must** meet these objectives to be approved by KDHE.

One of the important tasks of a VCI is to determine the background levels of the contaminants of concern. Here a Geoprobe operator collects soil and groundwater samples from a location upgradient of a contaminated property in Coffeyville.





Voluntary Cleanup Investigation



Each property presents a unique challenge and deserves its own sampling and investigation plan. Some of the activities that may be performed during an investigation include:

Site visits familiarize technical personnel with the property setting, activities at neighboring properties, and can identify obvious concerns.

Surface soil sampling is done in cases where materials have been spilled or placed on the ground, or perhaps airborne contaminants have deposited there.



Monitoring wells are commonly installed at identified environmental sites. Taking groundwater samples from already existing monitoring wells near the property is a relatively inexpensive way to identify the presence of groundwater contamination and helps to determine if contamination is migrating onto or off of the property.

Groundwater and deep soil sampling is done with direct-push technology such as a Geoprobe. It allows the consultant to understand the site's geology such as depth to groundwater and bedrock, and may identify where wastes have been spilled or buried on the property in the past. Collecting samples by direct push technology is time and cost efficient.



Surface water and sediment sampling may be needed to determine whether contamination has impacted adjacent and neighboring bodies of water.

Radiation surveys are done if there is a concern that operations at the property may have involved using, handling, or storing radioactive materials.





Voluntary Cleanup Investigation



Top: Collecting soil samples for field screening during an excavation.

Upper Left: Waste sludge discovered during drilling activities.

Lower Right: The staining on this sampling equipment comes from a layer of petroleum floating at the top of the water table.

Bottom: Screening sediment samples.



Voluntary Cleanup Investigation

Quality Assurance/Quality Control (QA/QC) refers primarily to ensuring that environmental samples are collected and analyzed in a way that ensures the data is accurate and supports decision making. QA/QC failure results in costly mistakes and project delays. Thorough QA/QC planning and documentation, in the form of a QAPP, is required for all VCPRP work plans and reports.



The QAPP specifies which procedures are used for collecting, storing, and handling samples, duplicate samples, and trip blanks; selecting, using, and decontaminating equipment; and field documentation.

Carefully proofread your reports!

- Check for proper spelling, grammar, and clarity of language. Use plain language that can be easily understood by technical professionals.
- Avoid technical errors. Data tables should be consistent with lab reports; risk factor analysis should be supported by report data.

The Quality Assurance Project Plan

The EPA and the American Society for Testing Materials have guidance documents describing appropriate QA/QC procedures. Qualified environmental consultants should have a standard QAPP in place. This off-the-shelf QAPP may be modified for each project and should be included in the work plan. The QAPP includes sampling and chain-of-custody SOPs, identifies key personnel and organizations, lists appropriate analytical procedures, and describes laboratory QA/QC programs.

Quality Control and Reporting

Any investigation report must describe how laboratory results were validated and QA/QC objectives achieved. Laboratory QA/QC procedures include duplicates, trip blanks, field blanks, rinsate samples, and field spikes or standard samples run. For field analysis, full documentation of calibration, standards run, and other QA/QC SOPs for validating in-field analyses must be included in the report. Additionally, environmental data collected must be assessed with regard to meeting KDHE's decision-making needs.

Consultants should follow the VCPRP's reporting requirements. **KDHE will not approve proposals, plans, or reports that are not clearly understandable or do not include appropriate QA/QC.**



Voluntary Cleanup Investigation

Field Screening

In most cases, soil, water, and air are sampled. Because contamination is not evenly distributed, most sampling plans include biased sampling; that is, sampling areas where the site history and conditions make it likely contamination is located. Field sampling methods such as using mobile field laboratories, X-ray refraction devices, and field test kits are used to guide on-the-spot sampling decisions and reduce the number of samples sent to the laboratory. Laboratory analysis is used to confirm the accuracy of the field screening methods.

Sampling Considerations

- Sampling should adequately characterize all impacted media on the property and any contamination sources.
- Areas with known releases should be sampled, as should areas of observed contamination.
- Levels of contamination at specific targets, such as property boundaries, drinking water sources, or the location of human or environmental targets (residences, wetlands, etc.) should be measured so that appropriate risk factors may be determined.

Quality Sampling

Developing a site-specific sampling plan and associated QAPP requires knowing the kinds of releases that may have occurred and designing the plan to use the appropriate methodologies, field procedures documentation, sampling equipment, containers, and preservatives. Procedural quality checks include collecting field duplicates, field blanks, trip blanks, spiked samples, and field rinsate samples. Proper documentation is crucial. To minimize error, follow the appropriate SOPs.

Quality Control in the Laboratory

Approved environmental laboratories will already have QA/QC procedures. However, the voluntary party or their consultant must talk to the laboratory about project objectives to make sure the correct analyses are performed. Quantification limits must equal or be less than the target cleanup levels established by Tier 2 risk-based standards or Maximum Contaminant Levels.

How to Expedite the VCPRP Process

The voluntary party and KDHE share the same goal: to return the property to productive use as rapidly as possible while protecting human health and the environment. Each VCPRP project includes deadlines that move a project forward and support timely decision making. Poor QA/QC or reporting creates unnecessary bottlenecks that waste time and money.



Collecting sediment samples from a sump.



Voluntary Cleanup Investigation

Risk-based Standards for Kansas

The Risk-based Standards for Kansas (RSK) Manual establishes general cleanup objectives for both residential and non-residential land use settings. It was developed to provide for flexible and cost-effective cleanups without the need to perform expensive baseline risk assessments. Plausible exposure pathways are considered, including exposure to contamination in surface soil, consumption of contaminated groundwater, and the potential migration of contamination from soil to groundwater and/or indoor air. The RSK Manual provides a detailed explanation of how the guidance has been developed and how it can be used.

A Tiered Approach to Cleanup Goals

The RSK Manual has three methods of evaluating cleanup values:

- Tier 1 compares the concentration of a naturally occurring contaminant to its background concentration in the affected media.
- Tier 2 compares the concentration of a contaminant to the risk-based cleanup values in the Tier 2 Risk-based Summary Table found in Appendix A of the RSK Manual.
- Tier 3 involves collecting the necessary data, under KDHE direction, to replace default values in the Tier 2 equations with site-specific information.

There are a few things to keep in mind when referencing the RSK Manual:

- The important part of the RSK Manual is the **procedure** for calculating cleanup objectives. Appendix A of the RSK Manual is a table of precalculated Tier 2 cleanup objectives for more than 170 common contaminants. The table is provided as a convenience and does not contain all possible contaminants of concern. If a site's contaminant of concern is not in the table, its Tier 2 cleanup values must be calculated according to the approved procedure.

The RSK Manual

KDHE published the first RSK Manual in 1999 in response to K.S.A. 65-34,167, which provides for the development of risk-based cleanup standards, and K.A.R. 28-71-11, the regulation establishing a tiered-approach framework for developing risk-based cleanup objectives. While developed for the VCPRP, the RSK manual is used for all other state response programs in BER.

The most recent version of the RSK Manual can be downloaded from http://www.kdheks.gov/remedial/rsk_manual_page.htm.



- Tier 2 values are cleanup objectives, not delineation targets. KDHE expects that contaminant extent be determined to the lowest possible laboratory detection limits, which may or may not be the Tier 2 value.
- The VCPRP generally uses the Tier 2 Residential values for decision making.
- Tier 2 values are compound specific. They do not consider the cumulative risk to health if multiple contaminants are present.
- The RSK guidance also addresses vapor intrusion and indoor air exposure pathways.
- Tier 2 values for groundwater default to the federal drinking water standard, or Maximum Contaminant Level, specified by EPA.
- Most programs within BER have adopted the Tier 2 values as default cleanup objectives. Each state response program, however, may determine its own method for calculating site-specific cleanup objectives under Tier 3. Tier 3 cleanup objectives may be calculated by substituting site-specific parameters for the RSK Manual's default values or use modeling or other unique approaches approved on a project-specific basis.

Determining Cleanup Objectives

In some special cases, the cleanup goals established in the RSK Manual will not be the goals selected for the project. For example, in Kansas the default assumption is that all groundwater is considered potable and must meet the most stringent drinking water standards. In some areas, the groundwater is not considered potable, either because it contains high levels of naturally occurring compounds such as salt or sulfur, or because it does not provide enough water to be used as a potable water supply. In those few cases, applying drinking water standards is too conservative, and new cleanup goals, based on economic and technical considerations, may be established. KDHE has developed policies to determine such cases. A full list of these policies can be found online at <http://www.kdheks.gov/ber/policies.htm>.

Another case is if an EUC will be applied to the property. An EUC can result in a “No Further Action” determination even if contamination above Tier 2 RSK levels remains, provided the property owner has agreed to long-term care and maintenance of the property as defined in the EUC Agreement.



Interim Remedial Measures

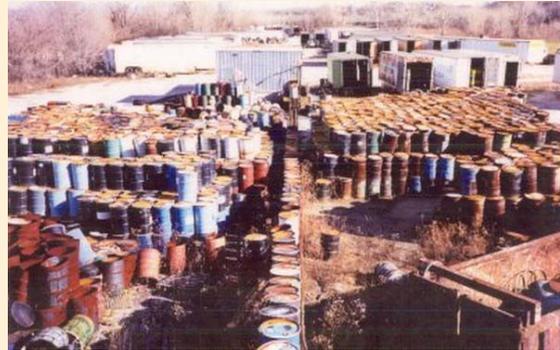
The VCPRP provides flexibility that allows voluntary parties to implement early measures that streamline the process and ultimately save time and money. Interim remedial measures commonly include source control actions such as soil excavation and waste removal. KDHE encourages interim remedial measures, because removing the source of contamination quickly and efficiently minimizes the impact to groundwater, surface water, and adjacent properties. The voluntary party can conduct interim remedial measures at any time during the VCPRP project. In some cases, interim remedial measures may be adequate and reduce contamination sufficiently to bring the project to completion. If an interim remedial measure is needed, the voluntary party should submit an Interim Remedial Measure Work Plan for KDHE's review and approval.

The Interim Remedial Measure Work Plan must include:

- A summary of available site information and sampling data
- A detailed description of the proposed interim remedial measure
- A discussion of the benefits the interim remedial measure provides
- Design specifications if needed, and other implementation details
- A cost estimate
- A detailed work schedule

After completing the interim remedial measure, the voluntary party must submit a report to KDHE documenting the action and results.

Waste Removal



A former chemical drum cleaning and recycling facility left a legacy of abandoned waste and contaminated soil.



The interim remedial measures taken involved inspecting, evaluating, and removing all of the drums and other materials from the property.



Interim Remedial Measures

Nitrate Presumptive Remedy

Some cleanup projects are very straightforward, and KDHE has standard guidance for performing some remedial measures. One example is the Nitrate Presumptive Remedy for properties impacted by fertilizer contamination.

In the Nitrate Presumptive Remedy, the nitrate-contaminated soil is delineated, excavated, and analyzed to determine how much fertilizer it contains. The voluntary party then calculates a spreading rate for the excavated soil, and applies it to cropland.

The advantages to using this approach include:

- It prevents the fertilizer from migrating to groundwater, where it can contaminate rural water supplies.
- The fertilizer gets used for its intended purpose, to nourish cropland.
- The voluntary party saves disposal fees, because the soil does not have to be taken to a landfill.
- The standardized remedy is easily customized for the needs of the project, saving the time and effort of creating a cleanup plan from scratch.

KDHE's guidance for land application and the Nitrate Presumptive Remedy can be found at http://www.kdheks.gov/remedial/scu/nitrate_contaminated_sites.htm.

For more information about this and similar cleanup strategies, contact your KDHE project manager.



Nitrate-contaminated soil is excavated and spread onto cropland.





Interim Remedial Measures

Pilot Studies

Pilot studies are small-scale remedial actions used to develop cleanup strategies for site-wide remediation. In general, pilot studies are conducted before submitting a Voluntary Cleanup Proposal. Performance monitoring indicates how well the remedy is working.



At this site, the voluntary party suggested addressing volatile organic compound contamination by injecting a sodium-hydroxide activated persulfate solution into the groundwater. Persulfate is a chemical oxidizer that reacts with organic contaminants to break them down into less harmful compounds.

Soil Excavation and Removal

For a site where a Phase II assessment or the VCI has identified soil contamination, an appropriate interim remedial measure may be to excavate the contaminated soil and dispose of it by a method approved by KDHE. Contaminated soils may be sent to a permitted landfill, landfarmed, or treated to enhance the natural breakdown of the contaminants. Excavating contaminated soils not only removes the source of contamination, but prevents additional impacts to groundwater or other media.



Excavation removes the source of contamination from a site. Remaining contamination in other media, such as groundwater, requires additional cleanup methods.



Interim Remedial Measure with Pilot Study

A chemical manufacturer discovered a storage tank was leaking chlorinated compounds into the environment. The property was enrolled in the VCPRP, and investigation was necessary to fully characterize the extent of the contamination. Meanwhile, a number of interim measures were taken to get a jump start on the cleanup plan.



Step 1: Remove the storage tank and excavate contaminated soil from around and under the tank, and from other locations on the property.

Step 2: Install monitoring wells at and around the property to delineate the extent of groundwater contamination and to track how well the pilot study and other cleanup actions are progressing.



Step 3: Perform a pilot study, with KDHE approval, by injecting a mixture containing food-grade vegetable oil and naturally-occurring bacteria into the groundwater plume. As the bacteria consume the vegetable oil, they create a chemical reaction that destroys the chlorinated compounds. Continue monitoring to evaluate contaminant reduction in the groundwater.





If KDHE determines that there is sufficient risk posed by the contamination and that cleanup is necessary, the voluntary party and their consultant will prepare a Voluntary Cleanup Proposal for KDHE review and approval. The sample Scope of Work in Appendix G shows the required format for this proposal.

KDHE will evaluate the Voluntary Cleanup Proposal according to nine criteria.

- Protects human health and the environment
- Attains Applicable or Relevant and Appropriate Requirements
- Long-term effectiveness and performance
- Reduction of toxicity, mobility, or volume through treatment
- Short-term effectiveness
- Implementability
- Cost
- State acceptance
- Community acceptance

The proposal should evaluate at least two cleanup strategies that address the contamination, are technically and economically feasible, and take current and future land use into consideration.

Voluntary Cleanup Proposal Objectives

- Protect human health and the environment for known or anticipated present and future land uses.
- Meet cleanup standards and guidelines determined by existing KDHE standards or through a KDHE-approved risk analysis.
- Evaluate at least two economically and technically practical cleanup alternatives other than “no action.”
- Describe and evaluate the preferred cleanup alternative.
- Provide a detailed schedule for implementing the Voluntary Cleanup Plan.

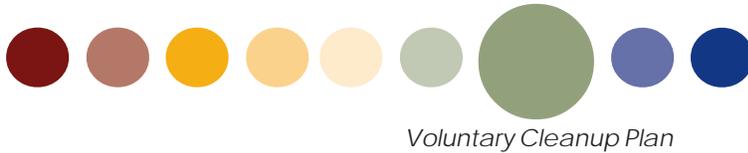
Applicable or Relevant and Appropriate Requirements

Applicable requirements are cleanup standards or controls, promulgated under state or federal law, specifically addressing a contaminant, action, location or other situation.

Relevant and appropriate requirements are cleanup standards which are not directly applicable under the law, but address very similar situations.

For example, the Maximum Contaminant Levels are established by the National Primary Drinking Water Regulations. These standards are **applicable** to public drinking water supplies, and **relevant and appropriate** for groundwater.

If a requirement is either applicable or relevant and appropriate, it must be followed.



After the Voluntary Cleanup Proposal is approved, the voluntary party and their consultant will prepare a Voluntary Cleanup Plan following the guidance in Appendix G. The Voluntary Cleanup Plan describes in detail each step of the chosen cleanup alternative, demonstrates a clear understanding of how these actions will address the contamination on and off the property, sets a schedule for implementing the cleanup, and provides contingencies if the cleanup alternative does not meet cleanup goals.



Future property development should be considered when developing a cleanup plan.

Voluntary Cleanup Plan Objectives

- Describe all tasks necessary for the preferred cleanup alternative.
- Create plans and specifications for the preferred cleanup alternative, including a project schedule.
- Describe all required easements and permits (federal, state, or local).
- Monitor the performance of the cleanup alternative.
- Demonstrate at the end of the project that cleanup objectives have been met.



Voluntary Cleanup Plan

Public participation is essential to reassure the community that the project protects public health and the environment. Before KDHE approves the Voluntary Cleanup Plan, KDHE will place a legal notice or advertisement in a local newspaper in general circulation in the vicinity of the contaminated property. This sample public notice can be modified for any project. Interim measures are not subject to public notice requirements.

Sometimes a VCPRP project elicits a great deal of public interest. Additional copies of the Voluntary Cleanup Plan can be made available in convenient places, such as a KDHE district office, the local public library, city offices, etc. The public may also request a public information meeting.

The public has at least 15 days after the date of publication to review the Voluntary Cleanup Plan and submit written comments. KDHE will respond to all comments in writing and, if warranted, modify the Voluntary Cleanup Plan. Once this is complete, KDHE will approve the Voluntary Cleanup Plan.

EXAMPLE PUBLIC NOTICE

The Kansas Department of Health and Environment (KDHE) is requesting public comment on the department's preferred cleanup alternative under the Kansas Voluntary Cleanup and Property Redevelopment Program to address environmental concerns at the Wicked Witch's Plant property located approximately four miles west of Emerald City, Kansas. A copy of the proposed Voluntary Cleanup Plan is available to anyone upon request.

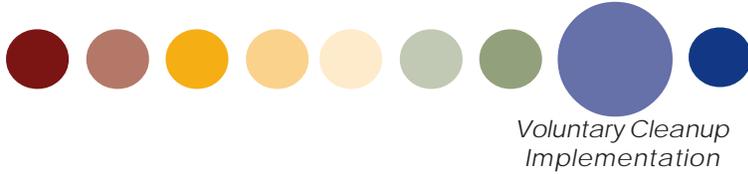
Written public comments on the Voluntary Cleanup Plan will be accepted by KDHE during a 15-day public comment period between May 1 and May 15, 2005. (If a public meeting is to be held, the date, time and place will be indicated. Meetings will generally be held in the county where the subject property is located.)

KDHE has not given final approval to the Voluntary Cleanup Plan for the Wicked Witch's Plant property. KDHE will consider all public comments received or postmarked prior to the comment deadline in developing a final Voluntary Cleanup Plan for the property. Copies of the proposed Voluntary Cleanup Plan may be obtained between 8:00 a.m. and 5:00 p.m. from:

Kansas Department of Health and Environment
Bureau of Environmental Remediation
1000 SW Jackson, Suite 410
Topeka, Kansas 66612-1367
CONTACT: VCPRP Coordinator
(785) 296-8064, FAX (785) 296-7030

Copies will also be available for the comment period during normal hours at the:

West County Public Library
123 West Yellow Brick Road
Ozburg, Kansas



The Voluntary Cleanup is that phase of the project when the actions specified by the Voluntary Cleanup Plan are performed. Because the VCPRP is a performance-based program, each project is evaluated by how well the Voluntary Cleanup has met the cleanup objectives, which will be determined through verification sampling. This sampling is usually conducted by both the voluntary party and KDHE. To pass the verification sampling, the levels of the contaminants of concern in the sampled media must be at or below the cleanup objectives.

If verification sampling confirms that the cleanup objectives have been achieved, KDHE may issue a "No Further Action" determination letter. If the cleanup objectives are not met, the voluntary party will have to continue cleanup activities or implement the contingencies provided in the Voluntary Cleanup Plan. These situations will be handled on a case-by-case basis.



Verification sampling ensures that the cleanup has been completed according to standards set in the Voluntary Cleanup Plan. To the left, a technician is using an X-ray fluorescence device to field-test for remaining metals in the soil. Below, samples are being taken before approving backfilling an excavation.





Initial response for this project included aerating the lake and placing contaminated soil into landfarming cells.



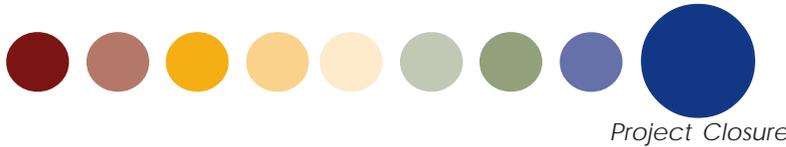
A pipeline release spilled approximately 3,200 barrels of unleaded gasoline which flowed into a nearby lake. The initial spill response contained the floating gasoline with booms, used skimmers and vacuum trucks to remove it from the lake, repaired the pipeline, and removed contaminated soil. The contaminated soil was taken to a landfarming cell, where it will be stored and periodically turned so that the gasoline can break down. Affected parts of the lake were aerated to speed the breakdown of the gasoline. However, there was extensive groundwater contamination.

As part of the Voluntary Cleanup Plan, the voluntary party installed more than 50 monitoring and extraction wells. They also installed a 225-foot biosparging trench. Biosparging is a cleanup strategy in which the consultant injects oxygen and nutrients into the contaminant plume to encourage naturally-occurring bacteria to break down the gasoline. The dual phase vacuum extraction system, pictured here, pumps water and gasoline out of the water table, separates the gasoline from the water, and then returns the clean water to the environment under a discharge permit.

Both dual phase vacuum extraction and biosparging are in-situ technologies, meaning the remaining contaminated soil and groundwater are not removed from the property for treatment. These systems will operate for several years until samples from the monitoring wells indicate that cleanup goals have been met.



The dual phase vacuum extraction treatment system.



Once all program requirements have been met, KDHE may issue a “No Further Action” determination letter, providing the voluntary party with assurance that no further action is required as long as conditions at the property do not change. This type of assurance from KDHE is designed to encourage property owners to clean up and redevelop contaminated properties.

A “No Further Action” determination indicates voluntary actions have been completed in accordance with the program’s standards and rules, and KDHE does not require further action at the property.

“No Further Action” determinations:

- May contain appropriate disclaimers, limitations, or conditional terms for the specific property.
- Apply only to identified conditions on the property.
- Are based upon the applicable statutes, rules, and regulations that exist at the time the project is completed.
- Provide relief from federal liability through KDHE’s Memorandum of Agreement with the EPA.

Generally, there are five situations or cases where KDHE may issue a “No Further Action” determination:

- 1) **No Contamination:** An environmental assessment or VCI reports that past and current uses of the property have not contaminated soils, surface water, or groundwater.
- 2) **Insignificant Contamination:** Contamination detected during an environmental assessment/VCI presents no significant risk and contaminant levels are below applicable federal or state standards.
- 3) **Off-Property Source of Contamination:** Contamination at the property originates exclusively from an off-property source and the source property is being addressed by state or federal agreements or regulations. The voluntary party may need to attach an EUC to the property to prevent activities, such as excavating or drilling wells, that would result in exposure to the off-property contamination.
- 4) **Approved Remediation:** Verification sampling confirms the property has been cleaned up to standards set in the Voluntary Cleanup Plan.
- 5) **Completed Remediation with Environmental Use Controls:** Contamination remaining at the property presents no significant risks based on current and future land use, and is not migrating off-site. An EUC has been placed on the property to prevent further exposure to the remaining contamination.



To close out a project, the voluntary party must record the “No Further Action” determination letter, with any required attachments, with the Register of Deeds in the county in which the property is located. The “No Further Action” determination becomes a permanent record for the property successors and assignees and is also retained as a permanent record by KDHE. After receiving an affidavit that the determination has been recorded, KDHE will issue a closure letter officially terminating the voluntary agreement. KDHE will refund any leftover deposit money to the voluntary party within 60 days.

VCPRP Success Story: Siemens Wind Turbine Manufacturing Plant, Hutchinson

When Siemens decided to expand their US facilities, they chose Hutchinson, Kansas, for their new wind turbine manufacturing facility. The property had previously been used exclusively for agriculture, but there was concern about potential future environmental liability from two nearby sites with known environmental contamination. Investigations conducted by Siemens confirmed that groundwater under the vacant property was contaminated.

The Siemens property was entered into the VCPRP in February 2009 with what was determined to be Class I contamination. KDHE reviewed the two nearby environmental sites, and determined they were both already being addressed through other state response programs. A site visit in April 2009 confirmed that the property itself was not a source of the identified contamination. KDHE issued a Class I “No Further Action” determination to Siemens. The “No Further Action” determination letter was the green light to move the project forward in Hutchinson.



The first new wind turbine nacelle was shipped from the Siemens factory in December 2010. The City of Hutchinson has 400 permanent, green-sector jobs and a bright future.

The new Siemens facility in Hutchinson, shortly after construction was completed in 2010. Photo provided courtesy Hutchinson/Reno County Chamber of Commerce.

Plans to build affordable housing for seniors were jeopardized when the developer's environmental assessments discovered the soil contained lead and arsenic above risk-based standards. The property had been used as an informal dump in the 1950's and 1960's, and some of the material placed there included waste sand from a local foundry.

The developer enrolled the property into the VCPRP. Further investigation determined that the heavy metals in the soil were not migrating to the groundwater, and the primary risk to the neighborhood would be ingestion or human contact with the contaminated soil.



The property, before (above) and after (below) redevelopment. Benefits to the community from this project include increased property values.

After a careful review of the original project blueprints, the voluntary party proposed to leave most of the contaminated soil in place, because the building, sidewalks, and parking lots would serve as an effective engineered cap. Landscaped areas were covered with 24 inches of clean topsoil to protect the residents. The proposal also included an EUC.

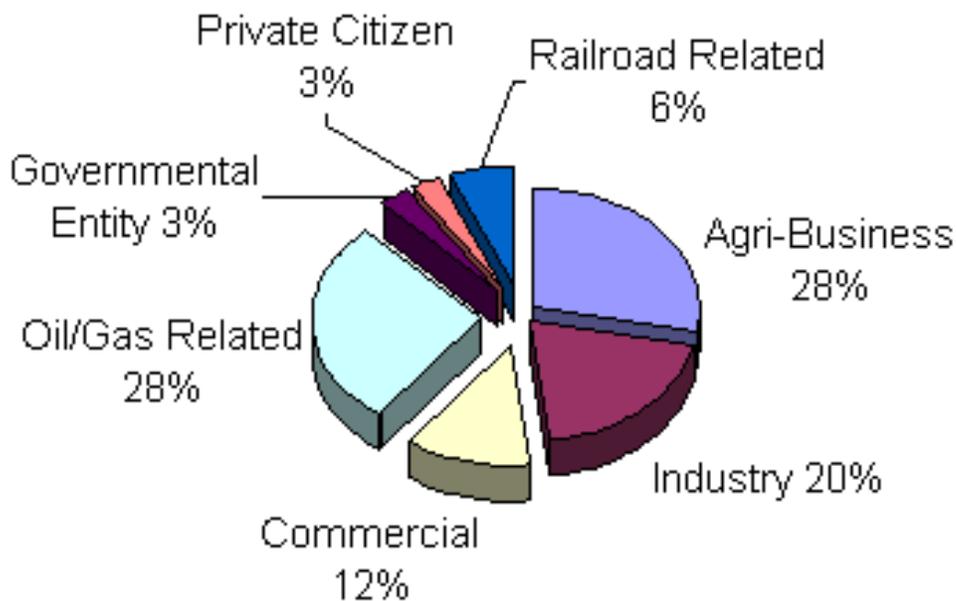
KDHE approved the Voluntary Cleanup Plan and the EUC. This cleanup strategy cost considerably less than excavating and disposing of all the contaminated soil while simultaneously preserving the property value. The property is now a three-story multi-unit apartment building for seniors.

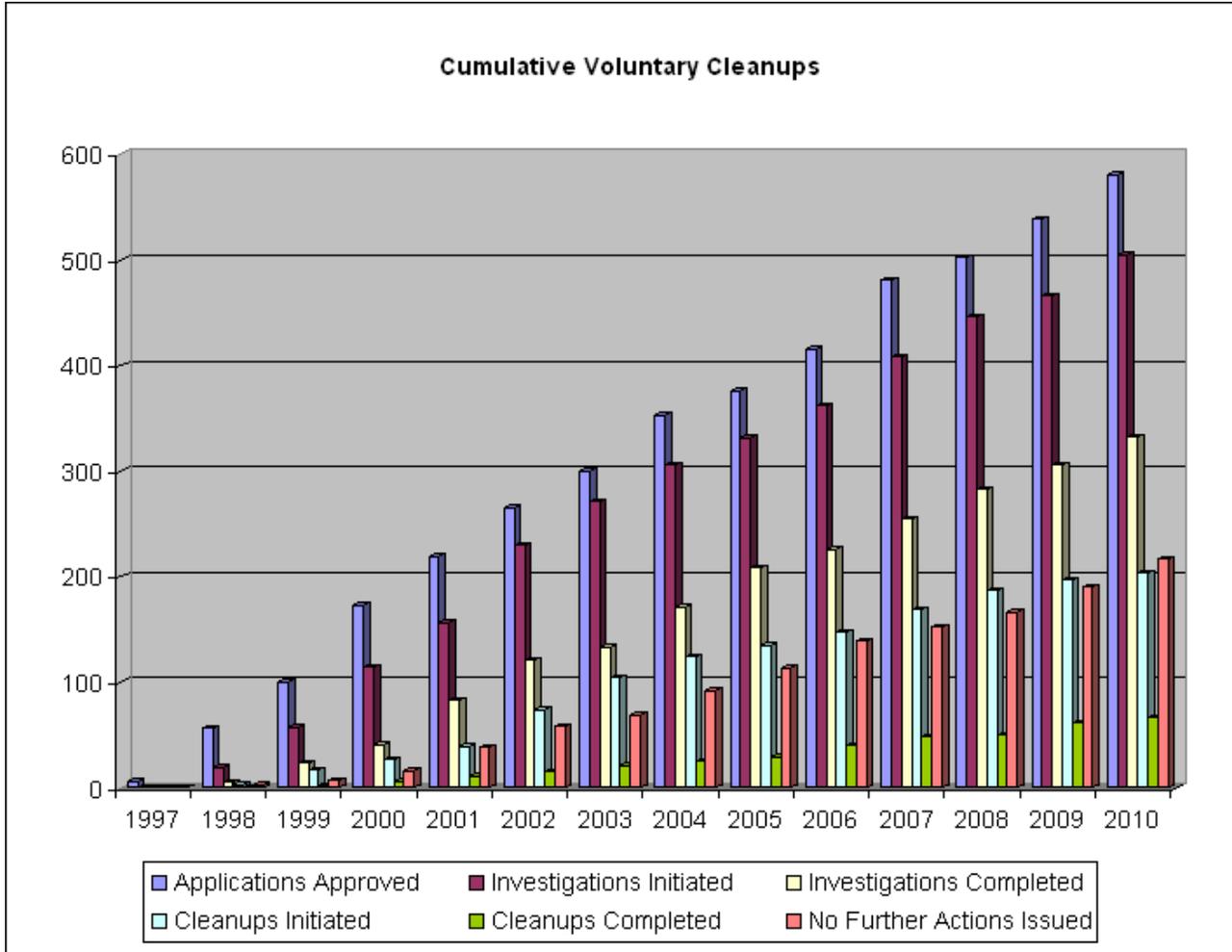


KDHE publishes an Annual Program Report for the VCPRP in the Kansas Register (http://www.kssos.org/pubs/pubs_kansas_register.asp). A copy of the annual report can also be obtained by contacting the VCPRP Coordinator.

KDHE received the first application to the VCPRP in September 1997. By the end of calendar year 2010, a total of 592 applications had been received and 581 approved. Applications involve many types of properties, including oil and gas, agri-business, industrial, commercial, and railroad-related. Some applications are received for properties owned or operated by governmental entities or private citizens. This figure provides a breakdown of the types of properties that have applied to the VCPRP as of December 2010.

Summary of VCPRP Applicant Categories





The VCPRP reached a milestone in 2010 by issuing the 200th “No Further Action” determination letter. Approximately 2068 acres of property have been cleaned up through the program and are now ready for continued reuse and/ or redevelopment. About 37% of participants in the VCPRP have received a “No Further Action” determination letter. The rest of the projects are still in some phase of investigation or cleanup. Many involve long-term groundwater cleanup initiatives that will take longer to complete. The VCPRP has been very popular and successful, historically receiving between twenty and fifty new applications per year. The figure above represents annual VCPRP activities from September 1997 to December 2010.

What is the Voluntary Cleanup and Property Redevelopment Program?

The VCPRP was established in 1997 to address contaminated properties that do not pose an immediate threat to human health and the environment. The program establishes a streamlined process to address these properties in an expedited manner, encouraging their redevelopment or enhancement. This practice promotes the use of established industrial tracts rather than building on pristine land. The program is voluntary and is designed to encourage industry to propose properties that need attention, addressing them in a timely manner through a local/state partnership. These properties and their owners benefit from an administrative process that may provide environmental liability relief in months, rather than years or decades, restoring a property's value and productive use.

Who can participate in the Kansas VCPRP?

Just about any person or entity with adequate access to or control of a property can enroll that property in the VCPRP. This includes property owners or purchasers, facility owners and operators, trustees, and local governments who acquired the property through abandonment, delinquency, or other circumstances.

Why should I consider the VCPRP?

Known or suspected contamination makes a property less attractive to purchasers and drives down property values. State and

federal cleanup programs typically concentrate on highly contaminated sites, and properties with low or moderate levels of contamination may never be addressed. The VCPRP removes uncertainty, cleans up the property, decreases potential liability, and supports property values.

What properties are eligible for the VCPRP?

Any Kansas property with known or suspected contamination, even if the source of contamination is an adjacent property, can participate unless it is:

- On or proposed for the National Priorities List, or Superfund.
- Already subject to a state, local, or federal environmental order or agreement.
- Required to have a Resource Conservation and Recovery Act permit with a corrective action component.
- Contaminated by an oil and gas production release specifically regulated by the Kansas Corporation Commission.
- An immediate threat to human health or the environment.
- A substantial threat to public or private drinking water wells.

If part of a large property is not eligible, the rest still may be. Contact the VCPRP Coordinator for an eligibility determination.

I want to sell my property. Can the VCPRP provide a buyer and their lending institution an evaluation of existing environmental conditions?

No. While your purchaser or their lender may require a “due diligence” site assessment, the VCPRP only becomes involved in a property when contamination is known to be present. However, in certain cases your property may be eligible for assessment through KDHE’s Brownfields Program.

When performing a “due diligence” assessment, you should use a qualified environmental consultant in order to reduce the chances of needing to repeat or verify the work when the property is later enrolled in the VCPRP.

How long after submitting an application until KDHE issues a “No Further Action” determination letter?

It depends on the level of contamination and the quality of work performed by the environmental consultant. For Class I properties, where off site contamination is already being addressed by a state or federal cleanup, resolution could be as soon as 90 days. That time increases as the level of investigation and cleanup effort needed increases. Some properties could require long-term monitoring for several years.

My property has been contaminated by a source located on another property. Can I get a “No Further Action” determination letter from KDHE?

Yes, provided the contamination is being addressed through KDHE or EPA programs and your property is not also a source for contamination.

I have already conducted a soil and/or groundwater investigation without KDHE’s oversight. Will the VCPRP require me to repeat the work?

If the investigation was performed by a qualified environmental professional and satisfies program criteria, it should not have to be repeated. However, KDHE may require limited verification sampling or additional investigation in order to fill data gaps.

What obligations does the Voluntary Agreement establish for the voluntary party and KDHE?

KDHE and the voluntary party agree to cooperate in investigation and cleanup. The voluntary party agrees to pay for the investigation, cleanup, and KDHE oversight. KDHE will not take any other environmental regulatory action with regards to the contamination in question and, once the project is completed, KDHE may issue a “No Further Action” determination letter, which will be recorded on the property deed.

How is the subject property identified in the VCPRP process? Can the subject property consist of only a portion of a larger property?

The property must be identified by legal description and a survey map prepared by a Kansas-licensed surveyor. A legal survey map is not necessary when you apply, but will be required before receiving an “No Further Action” determination; your project manager can provide guidance. Portions of a larger property may be considered if they meet all other eligibility requirements and the boundaries are surveyed.

How will cleanup goals for my property be determined?

Cleanup goals may be based on the standards published in the current edition of KDHE’s RSK Manual, or according to a site-specific risk analysis that satisfies KDHE guidance. KDHE will approve final cleanup requirements for the property based on an evaluation of the current and future property use.

If I sign a Voluntary Agreement, may I later leave the program?

Yes. You may leave the VCPRP at any time after notifying KDHE and paying all KDHE oversight costs due, as long as the property presents no greater threat to human health or the environment than when the agreement was signed. KDHE may then choose to address the contamination through another program.

Will I be admitting liability for environmental contamination if I apply to the VCPRP?

No. The Voluntary Agreement specifically states that the voluntary party admits no liability for contamination that may be at the property.

Can KDHE unilaterally terminate the Voluntary Agreement?

KDHE may terminate a Voluntary Agreement following appropriate notice if the voluntary party fails to comply with the agreement, fails to pay required oversight costs, or if the investigation discovers the contamination is a significant or immediate threat to human health or the environment.

I would like to clean up and redevelop my property, but I have no money. Will KDHE provide funds?

The VCPRP does not provide funding to investigate or clean up contaminated property. However, other programs exist that may be able to assist with funding for redevelopment if your property also meets those programs’ requirements.

If my property is cleaned up under the VCPRP, will I be protected if I or my lessee releases more contamination?

No. Completing a Voluntary Cleanup and receiving a “No Further Action” determination from KDHE only applies to the contamination addressed through the VCPRP, and the final decision to issue the “No Further Action” determination is based on data available at that time. Any releases and resulting contamination occurring after the “No Further Action” determination is issued are not included and will be handled as a separate issue. You may choose to reapply to the VCPRP.

Can KDHE or the EPA require further environmental action at my property once I receive a “No Further Action” determination?

Generally not for the contamination or conditions covered by the “No Further Action” determination. If environmental conditions at the property change or if new contamination is discovered, further actions may be necessary. The EPA has agreed to honor the environmental determinations made by KDHE under the VCPRP. A copy of the Memorandum of Agreement between KDHE and EPA can be found in Appendix H. However, if risk-based standards for the contaminants of concern later change, it might be necessary to re-evaluate.

What is the Kansas Agricultural Remediation Board?

KARB was created by the Kansas Agricultural Remediation Act, which authorizes KARB to reimburse qualifying parties for investigation and remediation costs. The property must be related to agriculture and the investigation and cleanup must be performed through KDHE programs such as the VCPRP. The remediation fund was created by assessing an annual fee on pesticide products, pesticide dealers, grain storage, fertilizer products, and custom blenders. More information about KARB can be found in Appendix B.

May I include contamination from underground storage tanks in my VCPRP activities?

You can, but KDHE recommends that all contamination from underground storage tanks be addressed under the Kansas Petroleum Storage Tank Release Trust Fund, if eligible.

I am applying to the VCPRP to address possible environmental contamination at my property. I would like to expedite activities at my property and work closely with KDHE throughout the process. Would an early meeting with KDHE to discuss the VCPRP process be a wise move on my part?

Yes, definitely! Once your Voluntary Agreement is executed (signed) by the Secretary of KDHE, you will receive a copy along with a letter that assigns a KDHE project manager. Immediately call your project manager and arrange for a meeting. If you already have a consultant, bring them along. Otherwise, you may wish to discuss your choice of a qualified environmental consultant with your project manager. Contact your project manager early and often to expedite the VCPRP process.

If your project has a short time line, it is helpful to let KDHE know this so that the project approvals and work can be performed as efficiently as possible.

Will KDHE help me select a qualified environmental professional?

KDHE obviously cannot recommend one consultant over another. KDHE will provide, upon your request, a list of environmental professionals who have worked for clients under various KDHE programs. Make your selection carefully. Make sure the consultant has experience in dealing with the specific environmental conditions at your property. KDHE project managers provide official oversight and cannot perform the services provided by consultants.

Kansas law requires that anyone offering services to the public as a geotechnical geologist (not oil field related) or engineer in Kansas be appropriately licensed by the Kansas Board of Technical Professions.

My property is in a small town that obtains its drinking water supply from the shallow aquifer. Will I be eligible for the VCPRP?

If contamination from your property is or threatening to impact active public or private drinking water wells, the property is not eligible for the VCPRP and must be addressed under the State Cooperative Program. If at the time of the application, the wells are inactive or the users have been connected to a permanent drinking water supply, the property may be eligible for the VCPRP.

My company has ten properties where our crude petroleum gathering pipe lines have leaked. We would like to resolve environmental issues at all of these properties through the VCPRP, but the initial deposits would represent a large cash outlay for our small company. Can you help us?

Yes. Four or more similar eligible properties located in the same general area of the state may be entered into the VCPRP simultaneously. The initial deposit may be established as \$1,000.00 per property, which will remain in your account as a cash balance provided you agree to pay KDHE oversight costs. The deposit may be refundable upon receiving a "No Further Action" determination for each property. Contact the VCPRP Coordinator to discuss applications for multiple properties.

What is an Environmental Use Control, how do EUCs differ from institutional controls, and how can it be used within the VCPRP?

In July 2003 KDHE established the EUC Program. EUCs, like institutional controls, involve restrictions on property use, such as prohibitions on installing drinking water wells, protection of engineered structures like caps protecting contamination left in place, and other similar mechanisms that prevent exposure to contamination. The property owner pays a fee to KDHE for continuing inspection, monitoring, and tracking. The EUC program is discussed further in Appendix B.

Kansas Brownfields Program

It is quite common to hear someone refer to a property as a Brownfield. However, the term is typically misunderstood and has become a catch-all for any property that is contaminated. By definition, a Brownfield is a property for which redevelopment, expansion, or reuse may be complicated by some sort of contamination or perceived contamination. It is important to understand what constitutes a Brownfield in Kansas and the resources and opportunities available to deal with them.

The Brownfields Program and VCPRP are considered complimentary, because they share the goal of getting properties back to sustainable use. In some cases, Brownfields Targeted Assessments (BTAs) complete all assessment requirements, promoting subsequent cleanup and closure through the VCPRP.

Eligibility for the Brownfields Program

The Brownfields Program typically works with city or county governments to assess properties. However, a privately owned property may be eligible for funding if the applicant is, or has a letter of support from, a local unit of government or a not-for-profit.

The Brownfields Program targets projects that have community benefit and support in terms of job creation, economic impact, green initiatives, or community need. BTAs have been used to build libraries, community buildings, fire stations, main street storefronts, and commercial real estate, all of which are key elements to rural community development and/or small start-up businesses.

Contaminated properties with a viable responsible party are not eligible for Brownfields funding.



Dilapidated buildings can be assessed for mold, lead paint, and asbestos through the Brownfields Program. When these problems are known, the developer can proceed safely with the renovation.

For more information on KDHE's Brownfields Program please contact:

Brownfields Coordinator
Kansas Department of Health and Environment
Bureau of Environmental Remediation
1000 SW Jackson, Suite 410
Topeka, Kansas 66612-1367
Phone: (785)296-1938
FAX: (785)296-7030
www.kdheks.gov/brownfields/index.html

Kansas Brownfields Program

Brownfields Targeted Assessments

The Kansas Brownfields Program is funded through an EPA grant and allows KDHE to provide BTAs to eligible applicants for projects that satisfy a community need or help create jobs. The BTAs provide an American Society of Testing and Materials 1527-05 Phase I environmental assessment “at no cost” to the project or community.

BTAs evaluate a property’s potential environmental liabilities according to due diligence standards known as “All Appropriate Inquiries.” The due diligence process, if completed properly, helps protect a potential purchaser from past liabilities. If due diligence is not properly completed then the potential liability for a purchaser greatly increases. KDHE BTAs are designed to meet all due diligence requirements.

A Phase I BTA includes (but is not limited to) a site visit, review of historical property use information, title searches, interviews, etc. A Phase I report is then provided to the property owner or municipality outlining recognized environmental concerns. A Phase II BTA includes media sampling and may be conducted if potential concerns are identified during the Phase I BTA.

Most environmental assessments only consider soil and/or groundwater contamination. However, KDHE BTAs can evaluate non-scope items such as asbestos, mold, and/or lead-based paint because these issues could adversely affect redevelopment costs. Furthermore, asbestos and lead identification may be required before demolition or reconstruction. In such circumstances, the BTAs become crucial components in fund leveraging for communities, businesses, and entrepreneurs.

Brownfields Technical Assistance to Communities

The Brownfields Program also provides:

- Technical assistance related to federal competitive grants.
- Determining appropriate environmental programs for specific properties.
- Cleanup options.
- Brownfields workshops around the state.
- Individual assistance to communities on specific redevelopment issues.

Kansas Brownfields Program Success Stories



Redbud Bike Trail

Part of the City of Wichita’s transportation strategy relies on creating an extensive network of bicycle/walking paths that connects the City’s residential and commercial districts. The Redbud Trail is one link in the network, constructed on a railbanked railway corridor. Kansas Brownfields Program funding was used to identify the extent of contamination along the trail route. The City enrolled the property in the VCPRP, which approved the BTA findings, allowing the City

to jump straight into project planning. The approved Voluntary Cleanup Plan combined cleanup activities with the intended construction work, at considerable savings to the City. An EUC prevents future park development from re-exposing the contamination.

City of Morrill Fire Station and Community Center

The City of Morrill purchased three properties, two of which had been abandoned for more than 20 years to redevelop into a combined fire station and community center. KDHE performed Phase I and Phase II BTAs. While there was contamination found, KDHE determined there was minimal risk to receptors. The new building is a great success, providing a place to store all the City’s fire fighting equipment and a gathering place for community activities. Brownfields funding was leveraged along with a Kansas Department of Commerce grant for this project.



Bitterman-Button Facility

The Junction City-Geary County Economic Development commission asked KDHE for a Phase I BTA at a former warehouse in Junction City. When they discovered no recognized environmental conditions, the City purchased and renovated the property. A bioscience and research company moved in, providing 18 jobs.

City of Atchison Riverfront Park

The City of Atchison applied to the Kansas Brownfields Program in order to redevelop former industrial sites into a riverfront park. Phase I and Phase II BTAs discovered only limited contamination. The Riverfront Park became a beautifully landscaped site for the City’s Lewis and Clark Bicentennial Commemorative, and hosts annual events and festivals. Riverfront Park anchors Atchison’s recreational and tourism development strategy.



Environmental Use Control Program

There are many contaminated properties where a complete cleanup is technically difficult or prohibitively expensive. The risk from these properties can be dramatically decreased or removed by using EUCs, institutional controls, or land use restrictions. The EUC Program was established in 2003 to provide another voluntary, cost-effective option for addressing contamination.

EUCs provide a way to prevent or reduce exposure to contamination by restricting what can be done with the property. Some activities that may be restricted by an EUC include: disturbing soil caps, covers, or berms; drilling water wells for domestic or other purposes; excavating on a property without proper notice; using the property outside of non-residential purposes; and allowing unrestricted access to a property. KDHE regularly inspects these properties to ensure that the property restrictions remain in place.

For additional information about the Environmental Use Control Program, please contact:

EUC Program Coordinator
Kansas Department of Health and Environment
Bureau of Environmental Remediation
1000 SW Jackson Street, Suite 410
Topeka, Kansas 66612-1367
Phone: (785) 291-3807
Fax: (785) 296-7030
<http://www.kdheks.gov/remedial/vcp/euc.html>



Above and to the left: before and after pictures of a former zinc smelter property subject to engineered controls with an EUC. In the above picture, contaminated soil is being consolidated into a disposal cell. In the picture to the left, the property has been reseeded with hardy grasses. With proper maintenance, the EUC will prevent human exposure to contamination for decades.

Environmental Use Control Program

Statute and Regulations

House Bill 2247, signed by the Governor on April 21, 2003, authorized EUCs for property contaminated above unrestricted use (i.e., residential) standards. KDHE coordinated with state and local government, military interests, agricultural and petroleum industries, major utilities, railroads, and environmental special interest groups when developing the bill. The bill was introduced during the 2003 Legislative session and was subsequently passed by the House and the Senate. The Environmental Use Control Act became law (K.S.A. 65-1,221 to 65-1,235) on July 1, 2003.

KDHE staff, with input from the stakeholder committee, developed regulations to define the application process, financial assurance, and long term care agreements. The regulations were finalized as K.A.R. 28-73-1 through 28-73-7 on April 7, 2006. On January 15, 2009, KDHE amended the definition of

eligible property in K.A.R. 28-73-1(c) and removed the language which prevented hazardous waste facilities from participating in the EUC Program. This amendment gives property owners more flexibility in addressing contamination, including expedited remediation, less expense, and increased protection of human health and the environment through the use of voluntary land use restrictions.

The EUC Act allows a property owner to protect human health and the environment by voluntarily establishing limits on the future use of a property when a cleanup leaves residual contamination above the Tier 2 residential RSK levels. Without the EUC, cleanup standards would require the much more stringent unrestricted residential standards. This saves the property owner time and money.

“Environmental Use Control” means an institutional or administrative control; a restriction, prohibition or control of one or more uses of, or activities on, a specific property, as requested by the property owner at the time of issuance; to insure future protection of public health and the environment when environmental contamination, which exceeds the department standards for unrestricted use, remains on the property following the appropriate assessment and/or remedial activities, as directed by the department pursuant to the secretary’s authority. For the purposes of this act, “environmental contamination” does not mean animal or process waste from a confined feeding facility as defined in K.S.A. 65-171d, and amendments thereto, livestock operations or the application of livestock waste for use as a plant nutrient. Any environmental use control created pursuant to this act runs with the property and is binding on the owner and subsequent owners, lessees, and other users of the land.

Environmental Use Control Program

Benefits

There are several long-term benefits from the EUC Program including:

- Increased protection of human health and the environment through tracking and enforcement of land use restrictions.
- Decreased liability for the landowner by preventing certain activities in the area of the cap.
- An EUC is cost effective, in that it allows properties to be cleaned up to non-residential standards based on predictions or determinations of future land use.
- Cleanup can be risk-based, rather than requiring an absolute approach.
- Previously contaminated property can now be redeveloped for beneficial industrial and commercial reuse.
- Redevelopment is streamlined by taking advantage of existing infrastructure such as streets, sewers, lighting, etc.
- Protection of utility and construction workers by requiring notification prior to work.
- Improvement of community image and economic vitality.
- Preservation of undeveloped greenfields by providing alternative properties for development.

EUC Program staff inspect properties enrolled in the program to make certain the conditions of the agreement are being met. This former oil refinery is subject to an institutional control that prohibits digging or disturbing the engineered cap. However, a pipeline company doing maintenance dug up a portion of the property. KDHE required the pipeline company to repair and restore the cap, protecting the community from the remaining contamination.



Environmental Use Control Program

How EUCs Work

An EUC runs with the property and is binding on all subsequent owners, lessees, and other users. Only KDHE can legally rescind an EUC. The property owner can ask for modifications to the terms of the EUC by conducting additional assessment or cleanup with KDHE's cooperation. If the property owner can demonstrate the original risk has been mitigated, KDHE can rescind or modify the EUC. In some cases, the EUC Agreement contains a commitment to reassess the property after a certain term of years has passed.

Applying to the EUC Program

An application for the EUC Program may be downloaded from www.kdheks.gov/remedial/vcp/download/eucapp.pdf or requested by phone from the EUC Coordinator. The application must be submitted by the property owner or the owner's authorized representative. The applicant should be notified within 60 days if the property is eligible.

Requirements for Eligible Properties

- The property is already enrolled in a KDHE program with oversight authority, such as the VCPRP or State Cooperative Program.
- The EUC is part of an overall cleanup plan that has also included or considered active remedial strategies.
- Cleanup objectives are based on non-residential land use, when protective structures are present and certain activities need to be prohibited.
- The property owner has given a notarized authorization for the EUC.



Heavy metals contaminated the soil at this former zinc smelter. Excavating tons of soil and disposing of it in a landfill would have been prohibitively expensive. Because the contamination was judged unlikely to migrate to groundwater, the decision was made to consolidate the contaminated soil into one area and construct an engineered cap of 22 inches of clay and topsoil. The surface was graded to prevent erosion and seeded with native grasses. The voluntary party signed an EUC Agreement to restrict future land use and protect the cap and has received a "No Further Action" determination.

Environmental Use Control Program

Categories

Category determinations are based on the size of the property, the toxicity and mobility of the residual contamination, and the necessary inspection schedule.

Category 1:

- Less than five acres in size
- Residual contamination has low toxicity and low mobility
- Protective structures require minimal maintenance
- Inspection frequency is once every five years
- Requires a one-time payment of \$2,000

Category 2:

- Any size property
- Residual contamination has moderate toxicity and moderate mobility
- Protective structures require limited maintenance
- More complicated and/or costly inspections
- Inspection frequency is not more than one inspection per year
- Requires a one-time payment of not more than \$10,000

Category 3:

- Any size property, especially large tracts
- Residual contamination has higher toxicity or mobility
- Protective structures require complicated or extensive maintenance or monitoring
- Frequent or complicated site inspections anticipated
- Inspection frequency is one or more inspections per year
- Cost is determined by the Long Term Care Agreement and will depend on the future property use and how well the protective structures are maintained

Contaminant mobility is highly variable from site to site, making it impossible to develop a template to cover all scenarios. KDHE will determine contaminant mobility on a case-by-case basis. Considerations include, but are not limited to, the physical state or phase of contamination, the physical-chemical properties of contamination, and the geology and hydrology of the property setting.

Environmental Use Control Program

Implementing the EUC

Once a property is approved for the EUC Program, KDHE develops an EUC Agreement (EUCA) that describes the property use restrictions and the necessary monitoring, maintenance, inspections, and funding. The property owner has 90 days to sign and notarize the executed EUCA, file a copy with the Register of Deeds office for the county where the property is located, and return the agreement and funding payment.

Inspections can be performed by KDHE or the property owner, as determined by the EUCA. If conditions or land use at the property are not being maintained, KDHE will look to the property owner to address the problem. Otherwise, KDHE can issue an order to correct the problem, rescind the EUC and require the property be cleaned up to residential standards, or take other enforcement actions as described in the EUCA.

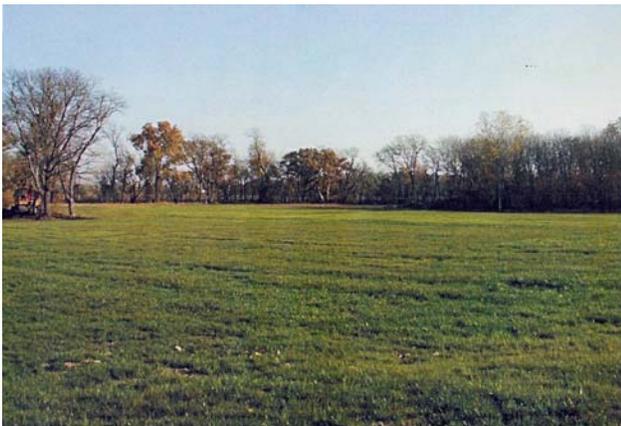


Left: This orphan site was heavily impacted by acidic sludge generated during asphalt refining in the early 1900's.

Right: The cleanup remedy involved stabilizing the acidic sludge with alkaline cement kiln dust to neutralize and immobilize the contamination.



Left: The EUC agreement includes long-term maintenance of the cap. The property can no longer be used for residential purposes, subsurface excavation, or for drilling water wells.



Kansas Agricultural Remediation Board Reimbursement Program

The KARB Program reimburses eligible participants for corrective actions performed under KDHE oversight at agriculture related sites. To be reimbursed, costs must be incurred after July 1, 1997, and submitted to KARB within two years of project completion. KARB meets quarterly and reviews all completed applications received at least 14 days prior. Applications are kept on file for a year, at which time the application can be resubmitted for assessment.

Kansas Administrative Regulations 125-1-1 through 125-1-9 define the application process, eligible sites, and eligible and ineligible costs. Eligible costs include consultant fees, sampling and analysis, and removing contaminated soil and groundwater. Ineligible costs include attorney's fees, loss of income, and the replacement costs of spilled agricultural chemicals.

The Remediation Reimbursement Fund is generated through fees on pesticide products, pesticide dealers, grain storage, fertilizer products, and custom blenders. Because there are more applicants to the program than funding will support, KARB must assess and prioritize reimbursements. Each application is scored by considering groundwater, soil, surface water, contaminant, and indoor air issues. For example, an agricultural facility with known groundwater contamination which threatens an active public water supply well located 1250 feet away will rank higher than a facility with only surface soil contamination and no impacts to the groundwater.



Incidental product spillage and poor materials handling practices that cause environmental contamination may have costly consequences. KARB may reimburse some investigation and cleanup costs, if they are conducted under KDHE oversight.



An application form and a set of regulations can be obtained by contacting the KARB Administrator or by accessing <http://www.karb.org>.

KARB Administrator
816 SW Tyler, Topeka, KS 66612
Phone: 785-440-0356
Fax: 785-234-2930

Kansas Agricultural Remediation Board Reimbursement Program

Reimbursement Determination

The legislature set a maximum reimbursement amount at the following levels:

- If an eligible party is assessed a fee, then that party can receive 90% of the total eligible corrective action costs between \$1,000 and \$100,000, plus 80% of the total eligible corrective action costs between \$100,000 and \$200,000. The total amount reimbursed shall not exceed \$200,000 within a five year period.
- If a party does not pay an assessment or is a pesticide dealer who has paid a \$5 assessment, then the party is eligible to receive 100% of their costs which are between \$1,000 and \$10,000.



Above: Restoration, such as grading and resurfacing after excavating contaminated soil, can be reimbursed under KARB.



KDHE encourages excavating fertilizer-contaminated soil and reusing it in a beneficial way in order to save disposal costs.



Voluntary Cleanup and Property Redevelopment Program Application and Instructions

The following VCPRP application and instructions are provided so that the applicant can print them and fill them out. An electronic copy is also available from the VCPRP website at http://www.kdheks.gov/remedial/vcp/download/vcp_application.pdf. Please feel free to contact the VCPRP Coordinator to ask any questions.

Completed applications should be sent to:

VCPRP Coordinator
Kansas Department of Health
and Environment
Bureau of Environmental Remediation
1000 SW Jackson, Suite 410
Topeka, Kansas 66612-1367



**KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
BUREAU OF ENVIRONMENTAL REMEDIATION**



**VOLUNTARY CLEANUP AND PROPERTY REDEVELOPMENT
PROGRAM**

—APPLICATION TO PARTICIPATE—

INTRODUCTION

Effective July 1, 1997, the State of Kansas issued new laws establishing the **Voluntary Cleanup and Property Redevelopment Act**, K.S.A. 65-34,161 *et seq.* The Voluntary Cleanup and Property Redevelopment Program, referred to as the “**VCPRP**”, has been developed by the Kansas Department of Health and Environment (KDHE) to implement K.S.A. 65-34,161 *et seq.* This application package (application form and instructions) provides the necessary direction for application to the VCPRP.

APPLICATION AND INFORMATION SUBMITTED

The completed application and information submitted with the application will be used by KDHE to determine an applying property’s eligibility for participation in the VCPRP. ***Please be sure to include a map with the application that clearly depicts the property boundaries.***

APPLICATION FEE

In accordance with K.S.A. 65-34,161 *et seq.*, a non-refundable application fee of \$200 must be submitted with the VCPRP Application Form. It is very important that this fee be submitted with the application; otherwise, the application will be returned to the applicant as incomplete.

*Make checks payable to: **Kansas Department of Health and Environment VCPRP***

WHERE TO SEND APPLICATION

Send completed application, supporting information, and the \$200 application fee to:

**VCPRP Coordinator
Kansas Department of Health and Environment
Bureau of Environmental Remediation
1000 SW Jackson, Suite 410
Topeka, Kansas 66612-1367**

KDHE REVIEW AND RESPONSE TO AN APPLICATION

KDHE has **60 days** from receipt of a complete application to determine a property’s eligibility for participation in the VCPRP. Incomplete applications may be returned to the applicant with specific identification of incomplete items. The applicant has 30 days to submit a revised and/or completed application to KDHE. If the application is complete upon resubmittal, KDHE will finish its review and provide the eligibility determination to the applicant. If the application is still not complete upon resubmittal, KDHE will deny and return the application to the applicant; if the applicant still wishes to participate in the VCPRP, the applicant will be required to reapply and include another \$200 application fee. **It is very important to ensure an application is completed in accordance with the instructions the first time!**

QUESTIONS ON ELIGIBILITY AND/OR COMPLETING THE APPLICATION

Call the VCPRP Coordinator at (785)296-8064.

APPLICATION INSTRUCTIONS

SECTION I

PROPERTY INFORMATION

Name	Provide a name for the property. The name may be based on an owner's name, current or historical operations, or the general location of the property.
Property Location	Provide a street address of the property. Also include the legal description of the property and/or a tax lot number, if one exists, which identifies the property. Tax lot numbers may be obtained from the city or county tax appraiser's office. Include a map that clearly depicts the property boundaries.
Historical Use	Provide a complete and specific description of the historical use of the property. An example would be: <i>agricultural, farmed land (until 1978); industrial, producing wood furniture (1978 to 1990); industrial, machine shop and metal plating (1990 to 1994); industrial, automotive parts fabrication (1994 to 1996).</i>
Current Use	Describe current activities at the property. An example: <i>"No current activities. Last operation at facility ceased in 1996."</i>
Future Use	If known, describe the intended future use of the property.
Surrounding Land Use	Check all boxes describing the land use in the area surrounding and immediately adjacent to the property.

SECTION II

APPLICANT INFORMATION

Applicant Name	Provide the name of the person(s) making application to the VCPRP.
Organization/Title	If the applicant is representing an organization, trust, company, or another individual, indicate the name of the organization and the applicant's title as representative.
Contact Information	Provide the applicant's mailing address and direct telephone number; include a fax number if available.
Applicant's Interest	Check all boxes that describe the applicant's interest in or relation to the property.
Owner Information	As stated on the application form, if the applicant is not the owner of the property, identify the property owner and provide the requested information.

SECTION III

NATURE OF POTENTIAL CONTAMINATION

Chemical Products/Wastes On Site	Check box(es) to indicate the general category(s) of chemical products and/or wastes handled, stored or disposed on the property. Check boxes for all categories applicable to the property regardless of whether a category of chemical is considered a potential source for contamination. Check the "Other" box and list any other chemical products or wastes for which descriptors are not provided.
Media Potentially Contaminated	Check the appropriate boxes to indicate the environmental media potentially contaminated at the property; also check a box to indicate whether contamination of a given medium is confirmed or suspected. An example would be a property in an area where shallow ground water is known to be present and there are no nearby surface water courses or drainages; a spill of solvent onto the ground is confirmed.
Source of Contaminants	Check the appropriate boxes to indicate the known or suspected sources for the contamination at the property.
Description of Problem	Provide a brief description of the contamination problem at the property. The description should provide a clear basis for why the subject property is proposed to be addressed through the VCPRP.

APPLICATION INSTRUCTIONS

SECTION III NATURE OF POTENTIAL CONTAMINATION (Continued):

Listing of Contaminant Compounds	Provide a list of contaminants detected at the property, with the maximum concentrations detected, and identify the media in which each contaminant was detected. Attach additional sheets for the list, if necessary, and include laboratory reports for sampling conducted at the property.
Investigative Work Conducted	Check the appropriate box(es) to indicate if environmental investigations have been conducted at the property. If some investigation has been done, check the box(es) indicating the level of investigation conducted to date. Provide the name of the entity that conducted the investigative work.

IMPORTANT! Copies of investigative reports, assessments, analytical results, and/or associated information must be submitted to KDHE with the VCPRP Application Form. If environmental investigations have been conducted, the application will be considered incomplete unless the investigative reports and/or associated information are provided with the application (see Misc. Instructions).

SECTION IV ELIGIBILITY INFORMATION

Please check the appropriate box to answer each of the questions listed in this section.

CERCLA Investigation	Indicate if any investigations have been conducted relative to the property under the auspices of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), also referred to as Superfund. These investigations are usually conducted by the United States Environmental Protection Agency (EPA), its contractors, or the State of Kansas.
CERCLA/NPL Listing	Indicate if the property, or any portion of the property, has ever been listed or proposed for listing on the National Priorities List (NPL) established under CERCLA. Contaminated sites that have been listed on the NPL are usually referred to as "Superfund Sites".
Enforcement Action	Indicate if the property is currently subject to an enforcement action issued pursuant to city, county, state, or federal environmental laws. Enforcement actions are generally interpreted as orders or civil lawsuits issued by governmental entities requiring action be taken to remedy an issue of non-compliance with environmental laws.
Environmental Orders/Agreements	Indicate if the property is currently subject to an environmental order or agreement (e.g., Consent Order/Agreement, Interim Agreement, Letter Agreement, etc.) with a city, county, state, or federal governmental agency. This particular question does not pertain to permits issued by governmental entities to conduct regulated activities at a property or facility.
RCRA Permit	Indicate if the property has, or has ever had, a RCRA Permit or RCRA Interim Status. If the answer is yes, please provide the requested information including: 1) type of permit, such as a permit for treatment, storage, and/or disposal (active or post closure); 2) EPA Identification Number; 3) the date the permit was issued; and 4) the expiration date of the permit.
Waste Generator	Indicate if there are any past or current activities conducted at the property that required classification as an EPA or Kansas Hazardous Waste Generator. If a facility or operation on the property was or is classified as a hazardous waste generator, enter the applicable identification number where indicated.
Oil & Gas Activities	Indicate whether oil and gas production activities regulated by the Kansas Corporation Commission have been conducted at the property.
Immediate Risk	Respond by indicating if, to the best of your knowledge, contamination at the property poses an immediate risk of harm to human health or the environment.
Potential Impact to Drinking Water Supplies	Indicate if contamination at the property has the potential to impact, or already has impacted, public or private drinking water wells or surface water supply sources such as supply intakes on lakes or streams.

APPLICATION INSTRUCTIONS

MISCELLANEOUS INSTRUCTIONS AND INFORMATION

Please note the following additional information and clarification for submitting the VCPRP application:

- 1) Section II, Applicant Information. If the applicant is not the owner of the property described in Section I, documentation is required with the application verifying that the applicant has access to or control of the property. Documentation can include lease agreements, contracts, or other legal documents indicating the applicant has access to or control of the property, or simply written confirmation from the owner that the applicant has access for purposes of conducting VCPRP activities.
- 2) Section III, Nature of Potential Contamination. As stated in Section III, copies of all investigative reports and sampling data must be submitted with the application. This would strictly apply to sites/properties that are newly identified to KDHE. Regarding existing sites/properties for which reports and sampling data are currently on file with KDHE, the applicant can resubmit the reports and data, or simply attach a listing of documents (document title, date, prepared by, etc.) KDHE is to reference when reviewing the application to determine eligibility.
- 3) Site Maps/Legal Maps. As stated in Section I, a map that clearly identifies property boundaries must be included with the application. KDHE recommends the site map include the entire property, or specific portion intended to be addressed through the VCPRP as KDHE's No Further Action (NFA) determination will only be issued for the property (or specific portion) identified in the application. In addition, KDHE will require that a legal map of the property be submitted prior to issuing a NFA determination. A legal map is considered to be a map, plat, etc., that depicts the legal boundaries of the property for which the NFA will be issued, such as a map prepared by a Registered Land Surveyor. It is not necessary to conduct a legal survey for the purposes of submitting an application; however, the legal map will be required prior to KDHE's issuance of the NFA determination.
- 4) Refund of Remaining Deposit Balance. KDHE must be provided a Federal Tax I.D. number, or a Social Security Number for an individual, prior to refunding the remaining deposit balance upon mutual termination of a Voluntary Agreement. This information is not necessary for the application process, but will be necessary should a refund be required in the future.



**KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
BUREAU OF ENVIRONMENTAL REMEDIATION**
Application to Participate
**VOLUNTARY CLEANUP AND PROPERTY REDEVELOPMENT
PROGRAM**



Application Form Instructions: Please type or print legibly. Incomplete applications and/or applications not accompanied by the required \$200 may be returned to the applicant. If any of the information requested is not applicable, enter "NA" in the blank. **VCPRP Application Form Page 1 of 3**

SECTION I PROPERTY INFORMATION

Property Name (facility or owner name) _____

Property Address _____

City (or Township) _____ County _____ Zip Code _____

Legal Description:

Township _____ South Range _____ (E/W) SectionQuarter(s) _____

Tax Lot # _____ Property Size (in acres) _____

*** Please include a map that clearly depicts the property boundaries (see instructions).**

Briefly describe the historical use of property with corresponding years of operation _____

Current use of property: _____

Future use of property (if known): _____

Land use surrounding property (check most applicable description or combination of descriptions):

Residential Industrial Commercial Agricultural Other (explain) _____

SECTION II APPLICANT INFORMATION

Applicant Name _____ Title _____

Organization _____

Mailing Address _____

City _____ State _____ Zip Code _____

Telephone (___) _____ Fax (___) _____

Applicant's interest in or relation to property (check all that apply):

- Owner of property
- Operates facility on property
- Previous owner of property
- Previously operated facility on property
- Prospective owner of property
- Prospective facility owner or operator on property
- Disposed of contaminants on property
- Legal entity controlling property
- Acquired by default (bankruptcy, tax delinquency, abandonment, or other circumstances)
- Other _____

If Applicant is not the owner of the property, provide the following information:

Owner's Name _____ Organization _____

Owner's Mailing Address _____

City _____ State _____ Zip Code _____

Telephone (___) _____ Fax (___) _____

Kansas Department of Health and Environment
 Bureau of Environmental Remediation
Voluntary Cleanup and Property Redevelopment Program
Application to Participate
VCPRP Application Form Page 2 of 3

SECTION III NATURE OF POTENTIAL CONTAMINATION

Chemical products/ wastes present, used, or stored at the property (check all that you are aware of):

- | | | |
|--|--|---|
| <input type="checkbox"/> Solvents/degreasers | <input type="checkbox"/> Pesticides (herbicides, insecticides, etc.) | <input type="checkbox"/> Metals |
| <input type="checkbox"/> Petroleum products | <input type="checkbox"/> Inorganics (salt, soda ash, etc.) | <input type="checkbox"/> PCBs |
| <input type="checkbox"/> Acids/bases | <input type="checkbox"/> Fertilizer | <input type="checkbox"/> Other (list) _____ |
| <input type="checkbox"/> Paint/paint wastes | <input type="checkbox"/> Sludge | _____ |

Media potentially contaminated (check all that apply and indicate if contamination is confirmed or suspected):

- | | | |
|--|------------------------------------|------------------------------------|
| <input type="checkbox"/> Surface Soil | <input type="checkbox"/> Confirmed | <input type="checkbox"/> Suspected |
| <input type="checkbox"/> Subsurface Soil | <input type="checkbox"/> Confirmed | <input type="checkbox"/> Suspected |
| <input type="checkbox"/> Ground Water | <input type="checkbox"/> Confirmed | <input type="checkbox"/> Suspected |
| <input type="checkbox"/> Surface Water | <input type="checkbox"/> Confirmed | <input type="checkbox"/> Suspected |

Known or suspected source(s) of contaminants (check all that apply):

- | | | |
|--|---|--|
| <input type="checkbox"/> Surface spill or discharge | <input type="checkbox"/> Underground tank/piping | <input type="checkbox"/> Lagoons or ponds |
| <input type="checkbox"/> Dumping or burial of waste | <input type="checkbox"/> Above ground tank/piping | <input type="checkbox"/> Seepage Pit or dry well |
| <input type="checkbox"/> Septic tank/lateral field | <input type="checkbox"/> Pipeline release | <input type="checkbox"/> Source not known |
| <input type="checkbox"/> Drums or other storage containers | <input type="checkbox"/> Adjacent property | <input type="checkbox"/> Other (list) _____ |

Briefly describe the contamination problem on the property: _____

List the contaminants, maximum concentrations (if known), and media impacted (if known):

<u>Contaminant(s)</u>	<u>Maximum Concentration (state, or circle units)</u>	<u>Media</u>
_____		(ppb/ppm)

(attach additional sheets if necessary)

Investigative work conducted at the property:

- | | | |
|--|---------------------------------------|-----------------------------|
| Has investigative work been conducted at the property? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Has an environmental audit been conducted? | Phase I <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| | Phase II <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Have other investigations/sampling been conducted? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Are water wells or monitoring wells located on the property? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

Who conducted the investigation? _____

(Copies of all investigative reports and sampling data must be attached and submitted with application)

Kansas Department of Health and Environment
 Bureau of Environmental Remediation
Voluntary Cleanup and Property Redevelopment Program
Application to Participate
VCPRP Application Form Page 3 of 3

SECTION IV ELIGIBILITY INFORMATION

- Yes No Unknown Has a CERCLA investigation been conducted on the property?
- Yes No Unknown Has the property ever been listed, or proposed for listing, on the National Priorities List of Superfund sites established under CERCLA?
- Yes No Unknown Is the property, owner, operator, etc., currently subject to enforcement action issued pursuant to city, county, state, or federal environmental laws?
- Yes No Unknown Is the property currently the subject of environmental orders or agreements with city, county, state, or federal governmental agencies?
- Yes No Unknown Does the property have, or has the property ever had, a RCRA Permit or RCRA Interim Status? If so, provide the following information:

Type (Permit)	Identification Number	Date Issued	Expiration Date

- Yes No Unknown Are or were there activities conducted at the property requiring classification as an EPA or Kansas Hazardous Waste Generator? Provide the Hazardous Waste Generator Identification Number: I.D.# _____
- Yes No Unknown Have activities that are regulated by the Kansas Corporation Commission been conducted at the property?
- Yes No Unknown Does contamination at the property pose an immediate risk of harm to human health or the environment?
- Yes No Unknown Does contamination at the property threaten or impact public or private drinking water wells or surface water used for drinking water supply?

SECTION V APPLICATION TO PARTICIPATE TERMS/APPLICATION SIGNATURE

The undersigned requests technical oversight, guidance and/or assistance from the Kansas Department of Health and Environment (KDHE)/Bureau of Environmental Remediation (BER) with investigation and cleanup of contamination at the property for which this application is being made. A nonrefundable application fee of \$200 is enclosed to cover processing and application review costs incurred by KDHE.

BER shall determine, and notify the undersigned accordingly, if the subject property is eligible for the Voluntary Cleanup and Property Redevelopment Program (VCPRP). If the subject property is determined eligible to participate in the VCPRP, the undersigned shall sign and submit to BER a Voluntary Agreement within 30 days of receiving the Voluntary Agreement from BER. Execution of this application form does not constitute a Voluntary Agreement, and the undersigned shall not be bound to proceed with the voluntary action. By completing and signing this application, the undersigned does not admit or assume liability for investigation or cleanup of the property. The undersigned may terminate this Application for Participation at any time by notifying BER.

The application, attachments and \$200 nonrefundable fee (made payable to the Kansas Department of Health and Environment) should be submitted to:

Voluntary Cleanup Coordinator,
 Remedial Section
 Kansas Department of Health and Environment
 Bureau of Environmental Remediation
 1000 SW Jackson, Suite 410
 Topeka, Kansas 66612-1367

Name: (print or type) _____
Signature _____

Title: _____
Date: _____

STATE OF KANSAS
DEPARTMENT OF HEALTH AND ENVIRONMENT
VOLUNTARY AGREEMENT

APPLICANT NAME
PROPERTY LOCATION

I. This Voluntary Agreement is entered into by **Applicant Name** ("Applicant") and the Kansas Department of Health and Environment ("Department") pursuant to The Voluntary Cleanup and Property Redevelopment Act; Kansas Statutes Annotated Chapter 65-34,161, et seq. The terms of this Voluntary Agreement are not negotiable.

II. In entering into this Voluntary Agreement, the mutual objectives of the Department and the Applicant are to insure that the public health, welfare and the environment at or near the Property are protected from any release or threat of release of contaminants. The Applicant explicitly denies any and all legal liability pertaining to the Property or derived there from under any federal or state statute, regulation(s) or ordinance(s) or common law.

III. The Department and Applicant mutually **AGREE** to the following:

A. The Applicant shall conduct a Voluntary Cleanup Investigation ("VCI"), that meets the objectives of the Department's Scope of Work. The Department may determine that information from existing investigations may satisfy such objectives, therefore, further investigation may not be required by the Department.

B. If the Department determines that further investigation is necessary the Applicant shall:

1. submit a draft VCI Work Plan including an implementation schedule for the review of the Department within ninety (90) days from the date of this Voluntary Agreement. The Department will review the work plan and either provide written comments for revision or written approval.

2. upon approval of the Department, implement the approved VCI Work Plan.

3. document the results of the investigation in a VCI Report. The report shall be submitted to the Department for review. The Department will review the report and either provide written comments for revision or written approval.

C. The Applicant shall provide Property access to the Department, its employees and contractors throughout the period of this Agreement for the purposes of oversight, including split sampling, and verification.

D. The Department shall make a determination as to any further required actions based on the results of the VCI Report. If no further action is determined by the Department, the Department will issue a "No Further Action Determination."

E. If remediation or monitoring is determined necessary by the Department, the Applicant shall be requested by the Department to:

1. submit to the Department for review and approval a Voluntary Cleanup Remediation Proposal ("VCRP") including an implementation schedule for review by the Department within ninety (90) days from the determination and notification to the Applicant that remediation and/or monitoring is necessary. The VCRP shall be developed by the Applicant based on a Scope of Work provided by the Department.

2. if the Department approves the VCRP, a Voluntary Cleanup Plan shall be submitted by the Applicant. The Voluntary Cleanup Plan will conform to the Department's Scope of Work.

F. If the Department accepts the Voluntary Cleanup Plan, the Department shall publish a notice of the Department's determination.

G. The Department will review the Voluntary Cleanup Plan and public comments, if any, to determine written revisions or written approval of the plan.

H. Following the public comment period and approval of the Voluntary Cleanup Plan, the Applicant will implement the plan within six (6) months and complete the plan within twenty-four (24) months, not including long term operation, maintenance, and monitoring of the system beyond the twenty-four (24) months if required.

I. Upon receipt of written assurance that the Voluntary Cleanup Plan has been completed by the Applicant, the Department and Applicant will conduct verification monitoring to confirm that the Property has been addressed as described in the Voluntary Cleanup Plan.

J. Applicant shall notify the Department at least seven (7) days before conducting any well drilling, installation of equipment, or sampling. At the request of either party, the party collecting samples shall provide or allow the other party or its authorized representatives to take split samples of all samples collected pursuant to this Voluntary Agreement.

IV. The Department may request the Applicant to perform additional tasks not mentioned in, but consistent with the scope and intent of this Voluntary Agreement to protect public health and the environment.

V. By entering into this Voluntary Agreement, Applicant does not admit any liability with respect to the Property, and nothing in this Voluntary Agreement shall be construed as an admission as to any issue of law or fact related to the Property.

VI. The Applicant shall, pursuant to the provisions of the Act, reimburse the Department for response and oversight costs. In the event that such costs are not paid by the Applicant, the Department will not continue work under this Agreement until reimbursement has occurred.

VII. The Department agrees that the activities being undertaken by the Applicant for this Property constitute the only response actions which the Department is undertaking or is causing to be undertaken for the Property. However this shall not preclude the Department from undertaking or causing to be undertaken any response actions that may be necessary to study conditions at or near the Property which present actual or potential threats to the public health or welfare or the environment.

VIII. Neither the State of Kansas, the Department, the Applicant, nor any agent thereof shall be liable for any injuries or damage to persons or property from acts or omissions of the others, their employees, contractors, agents, receivers, trustees, successors or assigns in carrying out activities required of the parties to this Voluntary Agreement. Neither the State of Kansas, nor any agency thereof shall be considered a party to any contract entered into by the Applicant in carrying out activities pursuant to this Voluntary Agreement.

IX. This Voluntary Agreement shall be effective as of the date signed by the Secretary of the Kansas Department of Health and Environment.

X. The provisions of this Voluntary Agreement shall be deemed satisfied thirty (30) days after completion of the requirements of Article III and the payment or refund of response and oversight costs incurred by the Department in accordance with Article VI. The Department shall use its best efforts to issue to the Applicant a certification that the responsibilities under this Voluntary Agreement have been completed and successfully discharged within thirty (30) days. Such certification shall be in the form of a "No Further Action Determination."

XI. The Applicant may terminate this Agreement prior to its completion provided that, from a human health and environmental perspective, the Property is in no worse condition at the time of termination than when the Applicant initiated activities under this Agreement.

XII. The terms and provisions of this Agreement shall be construed pursuant to the laws of the State of Kansas.

IN WITNESS WHEREOF, the Department and the Applicant have executed this Voluntary Agreement through their duly authorized representatives on the respective dates written hereunder.

By: (signature)

Secretary
Kansas Department of Health
and Environment

Printed Name

Title

Date

Organization

Date

Contaminants Identified at Property Determined to Be
Present at Insignificant Levels

Date @

Voluntary Party @
Address @

RE: No Further Action Determination for Subject Property

Name of Voluntary Party:
Legal Description of Property:
Property Location:

Voluntary Agreement No. _____

Dear (Name):

The Kansas Department of Health and Environment (KDHE) has completed its review of the available documents as of (date) for the subject property. Based on the information presented in the documents, (contaminant) in soil and/or groundwater was identified at the subject property. The attached determination summary identifies the nature and status of the contamination detected.

KDHE’s evaluation of the available documents for the subject property indicates that (describe contaminants tested) contamination impacting the subject property is present at levels that do not exceed the KDHE approved risk-based cleanup levels. KDHE has determined that contamination at the subject property does not pose a significant risk to human health or the environment. Therefore, pursuant to Kansas Statutes Annotated, 65-34,161 et seq., KDHE declares that No Further Action is necessary at the subject property. This No Further Action determination is issued to (Voluntary Party) and extends to successors and assigns of the subject property. This determination is conditioned upon (Voluntary Party) recording in the office of the Register of Deeds in and for (name) County, KDHE’s determination summary describing the contamination remaining at the subject property, the enclosed legal map showing property boundaries and this letter containing KDHE’s No Further Action determination. **An affidavit (form enclosed) indicating that the enclosures have been attached to the property deed must be returned to KDHE prior to termination of the voluntary agreement.**

KDHE’s No Further Action determination applies only to the subject property as identified on the attached map and is based exclusively on information provided to KDHE through (date). This determination pertains only to the identified known conditions on the subject property and does not account for activities that may be conducted at the subject property which could cause future releases of contaminants.

If you have any questions concerning KDHE’s determination for No Further Action, please contact the Project Manager, (Name) at (telephone number) or legal counsel, (Name) at (telephone number).

Sincerely,

Secretary,
Kansas Department of Health and Environment

Attachments: KDHE “No Further Action” Determination Summary
 Legal map showing property boundaries
 Affidavit form

Contaminants Identified at Property Cleaned Up to
Levels That Meet Established Remedial Standards

Date @

Voluntary Party @
Address @

RE: No Further Action Determination for Subject Property

Name of Voluntary Party:
Legal Description of Property:
Property Location:

Voluntary Agreement No. _____

Dear (Name):

The Kansas Department of Health and Environment (KDHE) has completed its review of the available documents as of (date) for the subject property. Based on the information presented in the documents, (contaminant) in soil and/or ground water was identified at the subject property. The attached determination summary identifies the nature and status of the contamination detected.

The KDHE has evaluated the available documents for the subject property, completed verification sampling and has determined that (contaminant) impacting the subject property has been addressed in accordance with the KDHE approved Voluntary Cleanup Plan. The KDHE hereby provides official notice that all requirements established by the Voluntary Cleanup and Property Redevelopment Program related to contamination at the subject property have been satisfactorily addressed. Therefore, pursuant to Kansas Statutes Annotated, 65-34,161 et seq., KDHE declares that No Further Action is necessary at the subject property. This No Further Action determination is issued to (Voluntary Party) and extends to its successors and assigns of the subject property. This determination is conditioned upon (Voluntary Party) recording in the office of the Register of Deeds in and for (name) County, KDHE’s determination summary describing any contamination that may be remaining at the subject property, the enclosed legal map showing property boundaries and this letter containing KDHE’s No Further Action determination. **An affidavit (form enclosed) indicating that the enclosures have been attached to the property deed must be returned to KDHE prior to termination of the voluntary agreement.**

KDHE’s No Further Action determination applies only to the subject property as identified on the attached map and is based exclusively on information provided to KDHE through (date). This determination pertains only to the identified known conditions on the subject property and does not account for activities that may be conducted at the subject property which could cause future releases of contaminants.

If you have any questions concerning KDHE’s determination for No Further Action, please contact the Project Manager, (Name) at (telephone number) or legal counsel, (Name) at (telephone number).

Sincerely,

Secretary,
Kansas Department of Health and Environment

Attachments: KDHE “No Further Action” Determination Summary
 Legal map showing property boundaries
 Affidavit form

Contaminants Identified at Property Addressed in
Accordance With the Cleanup Plan and Includes
Specified Contingencies

Date @

Voluntary Party @
Address @

RE: No Further Action Determination for Subject Property

Name of Voluntary Party:
Legal Description of Property:
Property Location:

Voluntary Agreement No. _____

Dear (Name):

The Kansas Department of Health and Environment (KDHE) has completed its review of the available documents as of (date) for the subject property. Based on the information presented in the documents, (contaminant) in soil and/or ground water was identified at the subject property. The attached determination summary identifies the nature and status of the contamination detected.

The KDHE has evaluated the available documents for the subject property, completed verification sampling and has determined that (contaminant) impacting the subject property has been addressed in accordance with the KDHE approved Voluntary Cleanup Plan. The KDHE hereby provides official notice that all requirements established by the Voluntary Cleanup and Property Redevelopment Program related to contamination at the subject property have been satisfactorily addressed. Therefore, pursuant to Kansas Statutes Annotated, 65-34,161 et seq., KDHE declares that no further affirmative remedial action is necessary at the subject property with the following conditions, if required: (identify contingent conditions; i.e. environmental use controls, long term monitoring, etc.). This No Further Action determination, including specified conditions, is issued to (Voluntary Party) and extends to its successors and assigns of the subject property. This determination is conditioned upon (Voluntary Party) recording in the office of the Register of Deeds in and for (name) County, KDHE’s determination summary describing any contamination that may be remaining at the subject property, the enclosed legal map showing property boundaries and this letter containing KDHE’s No Further Action determination. **An affidavit (form enclosed) indicating that the enclosures have been attached to the property deed must be returned to KDHE prior to termination of the voluntary agreement.**

KDHE’s No Further Action determination applies only to the subject property as identified on the attached map and is based exclusively on information provided to KDHE through (date). This determination pertains only to the identified known conditions on the subject property and does not account for activities that may be conducted at the subject property which could cause future releases of contaminants.

If you have any questions concerning KDHE’s determination for No Further Action, please contact the Project Manager, (Name) at (telephone number) or legal counsel, (Name) at (telephone number).

Sincerely,

Secretary
Kansas Department of Health and Environment

Attachments: KDHE “No Further Action” Determination Summary
 Legal map showing property boundaries
 Affidavit form

Contaminants Identified at Property Cleaned Up
Determined to Emanate from an Off-Site Source

Date @

Voluntary Party @

Address @

RE: No Further Action Determination for Subject Property

Name of Voluntary Party:

Legal Description of Property:

Property Location:

Voluntary Agreement No. _____

Dear (Name):

The Kansas Department of Health and Environment (KDHE) has completed its review of the available documents as of (date) for the subject property. Based on the information presented in the documents, (contaminant) in soil and/or ground water was identified at the subject property. The attached determination summary identifies the nature and status of the contamination detected.

KDHE's evaluation of the available documents for the subject property indicates that (describe contaminants tested) contamination impacting the subject property is associated with a release from an off-site source. The responsible party for the off-site source of contamination is currently under an agreement with KDHE, (agreement name and number), to address the extent of contamination impacting the subject property. Therefore, pursuant to Kansas Statutes Annotated, 65-34,169 (b)(1), KDHE declares that No Further Action is necessary at the subject property. This No Further Action determination is issued to (Voluntary Party) and extends to successors and assigns who are not otherwise responsible parties. This determination is conditioned upon the owner of the subject property placing an Environmental Use Control Agreement on the property containing conditions to protect human health and the environment from exposure to the contamination at the subject property and the agreement of (Voluntary Party) and successive property owners, to fully cooperate and allow reasonable access to the subject property for any future investigation or remedial action that may be taken in accordance with (agreement name and number). This determination is also conditioned upon (Voluntary Party) recording in the office of the Register of Deeds in and for (name) County, KDHE determination summary describing the contamination remaining at the subject property, the enclosed legal map showing property boundaries and this letter containing KDHE's No Further Action determination. **An affidavit (form enclosed) indicating that the enclosures have been attached to the property deed must be returned to KDHE prior to termination of the voluntary agreement.**

KDHE's No Further Action determination applies only to the subject property as identified on the attached map and is based exclusively on information provided to KDHE through (date). This determination pertains only to the identified known conditions on the subject property and does not account for activities that may be conducted at the subject property which could cause future releases of contaminants.

If you have any questions concerning KDHE's determination for No Further Action, please contact the Project Manager, (Name) at (telephone number) or legal counsel, (Name) at (telephone number).

Sincerely,

Secretary

Kansas Department of Health and Environment

- Attachments: KDHE "No Further Action" Determination Summary
- Legal map showing property boundaries
- Affidavit form

No Contamination Impacting Property

Date @

Voluntary Party @
Address @

RE: No Further Action Determination for Subject Property

Name of Voluntary Party:
Legal Description of Property:
Property Location:

Voluntary Agreement No. _____

Dear (Name):

The Kansas Department of Health and Environment (KDHE) has completed its review of the available documents as of (date) for the subject property. Based on the information presented in the documents, (contaminant) in soil and/or ground water was identified at the subject property. The attached determination summary identifies the nature and status of the contamination detected.

The KDHE has evaluated the available documents for the subject property and has determined that there is no (describe contaminants tested) contamination impacting the subject property. Therefore, pursuant to Kansas Statutes Annotated, K.S.A. 65-34,161 et seq., KDHE declares that No Further Action is necessary at the subject property. This No Further Action determination is issued to (Voluntary Party) and extends to its successors and assigns of the subject property. This determination is conditioned upon (Voluntary Party) recording in the office of the Register of Deeds in and for (name) County, KDHE’s determination summary presenting investigation results and subsequent conclusions regarding potential contaminant impact at the subject property, the enclosed legal map showing property boundaries and this letter containing KDHE’s No Further Action determination. **An affidavit (form enclosed) indicating that the enclosures have been attached to the property deed must be returned to KDHE prior to termination of the voluntary agreement.**

KDHE’s No Further Action determination applies only to the subject property as identified on the attached map and is based exclusively on information provided to KDHE through (date). This determination pertains only to the identified known conditions on the subject property and does not account for activities that may be conducted at the subject property which could cause future releases of contaminants.

If you have any questions concerning KDHE’s determination for No Further Action, please contact the Project Manager, (Name) at (telephone number) or legal counsel, (Name) at (telephone number).

Sincerely,

Secretary,
Kansas Department of Health and Environment

Attachments: KDHE “No Further Action” Determination Summary
 Legal map showing property boundaries
 Affidavit form

VCI Scope of Work

Introduction

KDHE determines the class of contamination at a property based on information contained in the VCPRP Application to Participate and in supporting documents (for details, see Section 1, subsection 1.4). Designation of Class I Contamination at a property generally means that KDHE has preliminarily determined that suspected or confirmed contamination exists at the property and the property does not appear to be a source for the contamination. In some cases, a property with Class I Contamination may be located adjacent to a property with a known source for the contamination. Alternately, a property may have confirmed contamination for which the source location is unknown and the nature of the contamination may not be consistent with the known or assumed current and historical use of the property.

Class II Contamination is generally defined as suspected or confirmed soil contamination on the property and there is no known or suspected groundwater contamination. Class III Contamination is generally defined as suspected or confirmed soil and groundwater contamination on the property and the contamination is contained within the property boundaries. Class IV Contamination is generally defined as suspected or confirmed soil and groundwater contamination on the property and beyond the property boundaries (i.e., off-site migration).

Voluntary Cleanup Investigation Work Plan

If KDHE determines that existing environmental investigations do not adequately characterize contamination at a property, a Voluntary Cleanup Investigation (VCI) may be required. Performance of a VCI will involve three processes:

- development of a VCI Work Plan.
- implementation of the KDHE-approved VCI Work Plan.
- reporting the investigative results in a VCI Report.

A VCI Work Plan describing the proposed investigative activities at a property must be prepared and submitted to KDHE for approval prior to beginning the investigation. The VCI Work Plan must include a detailed schedule of activities which specifically identifies the dates and time frames for performing and completing the VCI. Refer to the recommended VCI Work Plan and VCI Report content and format guidance provided later in this section.

Suggested Scopes of Work for a VCI are given below for each class of contamination. If KDHE determines that a VCI will be required at a property, an appropriate choice from these Scopes of Work may be used to tailor a VCI Work Plan suitable to adequately characterize contamination.

VCI Scope of Work

Class I Contamination

Considering the primary objective of obtaining KDHE’s determination for “No Further Action” at a property, actions to address Class I Contamination properties may vary considerably. Required actions may range from the voluntary party conducting investigative activities, as necessary, to verify that the property falls into the Class I Contamination category, to KDHE simply reviewing existing file information on an adjacent property with a known source.

Because of the potential variability in the nature of work that may be required for Class I Contamination properties, KDHE can not provide a standardized task-specific scope of work. The important fact to note is that an investigation may be required to verify the contamination class. If an investigation is required, the scope and tasks for the investigation will be determined jointly by the voluntary party and KDHE, and the final scope for the investigation will be very specific to evaluating the contamination class. A work plan, investigative report, quality assurance/quality control requirements, verification sampling, and notification requirements as required for Voluntary Cleanup Investigations will be necessary for any investigations conducted to verify a Class I Contamination designation.

The general objectives for a property with Class I Contamination include:

- Identify the contaminants suspected or confirmed at the property and the media impacted.
- Determine the potential for the subject property to be a source for the contaminants identified. This could include identification of known sources on adjacent properties; documentation of historical activities conducted at the subject property; and documentation of chemical products and compounds used, handled, stored, etc., at the subject property.
- Conduct investigations as necessary to verify whether a source for contamination is present on the property. As previously stated, an investigation may or may not be necessary; the necessity for a VCI will be determined on a case by case basis.

Class I Contamination

A property that has suspected or confirmed contamination, but is not a source of contamination.

Class II Contamination

A property with suspected or confirmed soil contamination that is not migrating off the property, and no groundwater contamination.

Class III Contamination

A property with suspected or confirmed soil and groundwater contamination that does not migrate off-property.

Class IV Contamination

A property with suspected or confirmed soil and groundwater contamination both on and off the property.

VCI Scope of Work

No Further Action Determinations for Class I Contamination Properties

In accordance with K.S.A. 65-34, 169 (b)(1), KDHE may consider issuing a “No Further Action” determination for a property impacted by contamination, but is not the source for the contamination, provided the source is being addressed under an agreement or order executed between KDHE or EPA and another party.

When all of these requirements are met, KDHE can issue a “No Further Action” determination for the Class I Contamination property. If an off-site source property is found to be causing the contamination at the subject property and the source property is not being addressed under an agreement or order, the “No Further Action” determination cannot be issued until an agreement or order is executed to address the source.

In summary, KDHE’s listing of general requirements for a Class I Contamination property to obtain a “No Further Action” determination includes:

- The owner and/or operator of the subject property shall submit a completed application to KDHE, including environmental assessments and investigative reports.
- KDHE determines that the contamination on the subject property resulted from an off-site property source.
- KDHE determines that there is no source of contamination on the subject property, including soil contamination.
- KDHE determines that the likely source of contamination exists nearby and its location may allow contamination to migrate onto the subject property.
- The owner and/or operator of the subject property documents that the past and current use of the property could not have contributed to the contamination of soil, surface water, or groundwater.
- The owner and/or operator of the subject property agrees to fully cooperate and allow reasonable access for the investigation and cleanup of the contamination from the source property.
- If contamination from an off-property source has migrated on or under the subject property and is above RSK levels, the current property owner must place an EUC agreement on the property.

VCI Scope of Work

Class II, Class III, and Class IV Contamination

If KDHE determines that previous environmental investigations at a property with Class II, Class III, or Class IV Contamination have not fully characterized the contamination, a VCI will be required. The Scope of Work expected for the VCI Work Plan and VCI Report will be of increasing complexity and completeness for higher classes of contamination. KDHE's approval of the VCI Report will be based on the voluntary party's report satisfying the following objectives.

- Source areas must be adequately characterized as to the type and nature of the source of contamination, cause of the release, estimated quantity of the release, and whether the release is active or inactive.
- The vertical and horizontal extent of contamination on or from the property must be characterized (including migration mechanisms).
- There must be adequate characterization of chemical and physical properties, mobility and persistence in the environment, and their important fate and transport mechanisms including pathways for air intrusion into property structures.
- Identify any human or environmental targets that may be affected by the contamination.
- Evaluate potential risk of contamination to human health and the environment.

VCI Tasks for Class II, Class III, and Class IV Contamination

This scope of work provides the specific guidance for completing a VCI for each class of contamination. If voluntary parties or their consultants have any questions about the appropriate Scope of Work for a property, they should contact KDHE for clarification before preparing the VCI Work Plan.

VCI Scope of Work

Task 1: Source Area(s) Characterization

All Classes: Define the vertical and horizontal extent and degree of contamination for all source areas. This task may include characterization to identify all source areas and/or eliminate suspected source areas.

Task 2: Extent of Contamination in Soil and/or Groundwater

All Classes: Define the vertical and horizontal extent of contamination in soil emanating from each source area identified and determine background concentrations for targeted contaminants.

Class III, IV: Define the vertical and horizontal extent, including intrusion of vapors into structures, of contamination in groundwater emanating from each source area identified. If free-phase product is present at the property, the horizontal and vertical extent of the product must also be determined. Determine background concentrations for targeted contaminants.

Class IV: If contamination extends beyond property boundaries, the vertical and horizontal extent of impact must be delineated. The other properties impacted must also be identified as to their use and ownership.

Task 3: Vadose Zone Physical Characteristics

All Classes: Define physical characteristics of the vadose zone. Note that this information may be necessary in evaluating contaminant fate and transport (including vapors) in soil as well as appropriate remedial technologies.

Task 4: Aquifer Characteristics

Class II: Not applicable.

Class III, IV: Determine the basic physical characteristics of the aquifer to ascertain contaminant fate and transport mechanisms, migration potential, and evaluate remediation technologies and approaches.

Class IV: Conduct a site-specific hydrogeologic assessment to determine the physical properties of the aquifer including groundwater flow direction, velocity, horizontal and vertical gradients and hydraulic conductivities, boundary conditions, storage characteristics, etc. This hydrogeologic information will be used to ascertain contaminant fate and transport mechanisms and migration potential, and evaluate remediation technologies and approaches.

VCI Scope of Work

Task 5: Human or Environmental Targets/Risk

All Classes: Identify any human and/or environmental targets (receptors) that are or may be affected by the contamination. Evaluate the potential risk to human health and the environment posed by the contamination. The identification of receptors and evaluation of risk should consider all applicable exposure pathways and exposure routes including indoor air intrusion. Provide specific information documenting receptors such as locations, names and addresses, the mechanism of potential exposure, etc.

Class IV: Inventory public and/or private water supply wells within a minimum of one mile downgradient of the property; locate human populations (names and addresses); identify surface water bodies; and delineate any sensitive ecosystems, such as habitat for endangered species, that may have been or may be impacted by contamination from the property.

Task 6: Land Use Determination

All Classes: Determine the current and future land use on and surrounding the property. This information will be used to determine appropriate cleanup levels and remedial approaches.

Additional information relevant to preparation of a VCI Work Plan may be found in various Bureau of Environmental Policies available at: <http://www.kdheks.gov/ber/policies.htm>.

VCI Scope of Work

Implementation of the VCI

The voluntary party can implement the VCI once KDHE approves the VCI Work Plan. Voluntary parties should encourage their consultants to implement the approved work plan as quickly as possible. The KDHE project manager must be notified at least seven days in advance of field work so that KDHE can be present for general oversight and to collect split samples.

KDHE’s initial contamination classification is based on the best information available at the time. If information obtained during the VCI indicates that the soil and/or groundwater contamination at the property has migrated off-site, or that groundwater contamination is not present and would not be expected to occur, **notify the KDHE project manager immediately!** KDHE will review the additional information with the voluntary party to determine if the contamination classification for the property should be adjusted; only the KDHE project manager can adjust the contamination classification. If a contamination classification is adjusted to a lower level, less investigative work may be required. If the contamination classification is increased, the KDHE project manager can help revise the work plan to eliminate duplicative reporting, saving time and potentially costs, and generally expediting the VCI process.

VCI Report

The voluntary party must submit a VCI Report to KDHE for review, comment, and approval. The report will document the results of the investigation and provide other information needed to make appropriate decisions regarding closure, monitoring, or cleanup. The VCI Report must be submitted to KDHE in accordance with the schedule included in the VCI Work Plan. Refer to the following VCI Report guidance for content and formatting requirements.

VCI Scope of Work

VCI Miscellaneous Information

Phased Investigations

The VCPRP allows for phasing VCI activities in specific cases. Phasing investigations, especially for properties with little existing investigative information, can be more efficient and cost effective. For example, a property in a setting with shallow groundwater and unconsolidated sediments would appear amenable to direct-push sampling for both soil and groundwater. Using field analytical methods, it may be possible to satisfy most investigative objectives in an initial mobilization, gathering the data necessary to establish an efficient monitoring well network in the event groundwater contamination is confirmed. There are many other scenarios where phasing an investigation makes sense and would likely be allowed. It would be appropriate to discuss potential options with the VCPRP project manager under this scenario.

For phased investigations, the VCI Work Plan must present a comprehensive strategy, describing how information collected in the first phase will be used to guide subsequent phases towards VCI completion. Details for subsequent phases may be more general in the initial proposal. Rather than preparing a comprehensive VCI report following each phase, a data submittal with proposals for work to be conducted in the subsequent phase will suffice. Additional work plans can be abbreviated and reference the initial work plan for procedural information, as appropriate. Keep in mind the intent of the VCPRP is to provide for a more expedient investigation process; **an unnecessary numbers of phases leading to prolonged investigation will not be allowed.**

Delineation of the Extent of Contamination

The Risk-based Standards for Kansas (RSK) Manual is a Bureau-wide guidance for establishing site-specific human health-risk based cleanup objectives for soil, groundwater, and indoor air. The RSK Manual is updated periodically and the values listed apply until revised. Therefore, frequent reference to the current RSK Manual during the all phases of the VCPRP is appropriate. The current version is available on-line at http://www.kdheks.gov/remedial/rsk_manual_page.htm.

KDHE considers the risk-based Tier 2 values to be cleanup objectives. They are not to be confused with delineation objectives. To the degree feasible, KDHE expects that the extent of contamination (in any media) be delineated to the lowest laboratory analytical detection limits possible so that it can be clearly demonstrated where the contamination is and isn't.

Through following standard investigative procedures, the extent of contamination is usually defined well enough to determine if remediation is necessary and what form that remediation should take. There will be cases where additional sampling locations are considered necessary to complete delineation. The project manager's professional judgment will determine whether to require additional sampling, and includes considerations such as the ability to extrapolate a "zero edge" based on some control locations with no detectable contaminants, the existence of well defined concentration gradients, physical restrictions to or level of effort for installation of sampling points, potential receptors and exposure pathways in the immediate vicinity, etc.

VCI Work Plan Format

While an investigation should target complete delineation, it is not always possible. In those cases, KDHE can demonstrate flexibility based on site-specific circumstances in cases where reasonable attempts to achieve the targeted objective have been made.

KDHE requires complete delineation as opposed to delineating to RSK levels for the following reasons:

- RSK Tier 2 values listed in Appendix A are compound-specific and do not factor in the cumulative risk for multiple contaminants, if present. It is possible that an unacceptable risk occurs when there are multiple compounds present, with each compound being below its RSK level.
- **RSK values are subject to change** and RSK values for unique compounds not currently listed in the RSK Manual may be calculated by KDHE and/or independent sources in the future.
- The public has an expectation that KDHE will confirm the location of and distribution of contamination when identified. KDHE must be in a position to confidently state that we know where contamination is and is not present.
- The environment is inherently more complex than we can sometimes appreciate; therefore, most environmental work constitutes an oversimplification of a more heterogeneous environment. Delineating to non-detect provides additional assurance that trends observed in limited data sets reflect genuine declines and not localized variations.

For naturally occurring contaminants, delineation to background concentrations is typically expected. Some additional sampling might be required to establish background concentrations for a given setting. KDHE policy on sampling for background levels of naturally occurring contaminants can be found at: http://www.kdheks.gov/ber/policies/BER_RS_038.pdf.

Communication with VCPRP Coordinator and Project Managers

Candid and open communication with VCPRP staff cannot be overemphasized. The VCPRP strongly encourages voluntary parties to be directly involved, along with their consultants, in discussions concerning investigation strategies. They should meet with the VCPRP project manager at the beginning of the project and as often as necessary thereafter to expedite completion of the investigative activities needed. VCPRP staff can facilitate a complete understanding of investigative objectives, share experiences in terms of successful investigative techniques, and identify investigative options that may not have been considered. Regulatory guidance is often revised, providing new investigation options for a voluntary party that may not have been previously considered.

VCI Work Plan and Report Formats

VCI Work Plan Format

General: This guidance presents the recommended content and format for VCI Work Plans for environmental investigations at a property. **Please note that this guidance is comprehensive and does not segregate work plan content or format based on the varied contamination classification levels.** Many of the content items are common for all contamination classification levels; this guidance should be used and adapted as appropriate for the specific property and contamination classification being addressed. Please note also that the format guidance for the VCI Report requests some information from sources other than the VCI.

1.0 Introduction and Work Plan Rationale

- 1.1 VCI Objectives/Rationale—Provide a general overview of the objectives and rationale for conducting the VCI.
- 1.2 Data Needs and Objectives—Identify the types of data needed to achieve the VCI objectives. Provide discussion of the specific objectives for the various types of data by indicating how the data will allow VCI objectives to be achieved.
- 1.3 Work Plan Approach—Describe how the general work plan strategy has been developed and how proposed investigative activities will achieve the objectives of the VCI.

2.0 VCI Tasks

- 2.1 Proposed Field Investigation—Describe the proposed investigative activities relative to items 2.1.1 through 2.1.8 below. **Address only activities applicable to the contamination classification for the property as defined by the Scope of Work.**
 - 2.1.1 Source Area(s) Characterization—Describe how the vertical and horizontal extent and degree of contamination for all source areas (soil, groundwater, surface water, sediments, air, etc.) will be investigated.
 - 2.1.2 Extent of Contamination in Soil—Describe how the vertical and horizontal extent of soil contamination emanating from each source area will be investigated.
 - 2.1.3 Extent of Contamination in Groundwater—Define how the vertical and horizontal extent of groundwater contamination emanating from each source area will be investigated.
 - 2.1.4 Vadose Zone Physical Characteristics—Describe how physical characteristics of the vadose zone will be investigated.

VCI Work Plan and Report Formats

- 2.1.5 Aquifer Characteristics—Describe the aquifer parameters that will be investigated during the VCI such as transmissivity, vertical and horizontal hydraulic conductivity, storativity, specific yield, boundary conditions, etc. Describe how the aquifer parameters are to be determined.
- 2.1.6 Investigative Derived Wastes—Describe how all investigative derived wastes are to be handled, treated, analyzed, and disposed of.
- 2.1.7 Regulatory Involvement—Describe all areas of the proposed investigation where local, state, and/or federal regulatory authority will apply, such as well drilling, soil boring plugging, drilling permits, etc.
- 2.1.8 Permitting—Identify all state, local, or federal permits necessary for conducting the investigation.
- 2.2 Sampling Strategy—Describe the sampling strategy and objectives for the VCI; this discussion should be associated with items 2.2.1 through 2.2.4 below.
- 2.2.1 Sampling Objectives—Describe the objectives of sampling efforts relative to the intended use of the data.
- 2.2.2 Sampling Locations and Frequency—This section should define what, when, where, how, and why samples will be collected. This would include samples for field screening and samples for laboratory analysis relative to all media being sampled.
- 2.2.3 Sampling Equipment and Procedures—Provide step-by-step instructions indicating how each sample will be collected. The instructions should also identify all equipment to be used for sample collection and decontamination procedures.
- 2.2.4 Sample Handling and Analysis—This should consist of a table that identifies sample preservation methods, types of sampling containers, shipping procedures and requirements, holding times, field screening analytical methods, and laboratory analytical methods.
- 2.3 Vadose Zone Contaminant Transport Modeling—If vadose zone modeling is proposed, identify the proposed model and the data necessary for input parameters. Describe in detail the nature of field testing that will be conducted to determine model input parameters. All modeling must be conducted in accordance with BER's policy "Minimum Standards for Model Use", BER-RS-007 available at: http://www.kdheks.gov/ber/policies/BER_RS_007.pdf.
- 2.4 Groundwater Flow and Contaminant Transport Modeling—If groundwater flow and contaminant transport modeling is proposed, describe in detail the proposed model(s) and the required model input parameters. Describe in detail any testing

VCI Work Plan and Report Formats

proposed to determine model input parameters. All modeling must be conducted in accordance with the aforementioned BER Policy BER-RS-007.

- 2.5 Identify Potential Receptors—Inventory public and/or private water supply wells within one mile downgradient of the property, locate human populations (names and addresses); identify surface water bodies, and delineate any sensitive ecosystems, such as habitat for endangered species, that have been or may be impacted by contamination from the property.
- 2.6 Land Use Determination—Determine the current and future land use on and surrounding the property.
- 2.7 Other—Describe in detail other proposed investigative techniques.

3.0 Schedule

Provide a detailed schedule of proposed VCI activities which specifically identifies the dates and time frames for implementing and completing the VCI, including initiation of field work and submittal of VCI Report.

4.0 References

Provide a comprehensive listing of resources referenced in preparing the VCI Work Plan.

5.0 Tables

Provide tables of information and data as appropriate for quick reference within the VCI Work Plan. Tabulated data such as field screening data, laboratory analytical data, water level data, well completion data, etc., from previous investigations should be included.

6.0 Figures

At a minimum the following figures must be included within the VCI Work Plan (note—all figures must be to scale):

- 6.1 A figure based on a USGS 7.5' topographic quadrangle map depicting the property location.
- 6.2 A site map that depicts the entire property, clearly depicts property boundaries, and includes buildings and other pertinent features on the property and surrounding properties including potential source areas and potentially impacted receptors.
- 6.3 A figure that depicts proposed sampling locations for the VCI.
- 6.4 Any figures from previous investigation reports, such as potentiometric maps or figures depicting known source areas and the known extent of contamination.

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7.0 Appendix A—Quality Assurance Project Plan

A Quality Assurance Project Plan (QAPP) must be developed to describe the policy, organization, functional activities, and quality control and quality assurance protocols necessary to achieve the level of data quality required for its intended use. The QAPP must define the following information:

- 7.1 Key Personnel—Identify key personnel or organizations necessary for implementing each activity during the VCI, along with their responsibilities.
- 7.2 Quality Assurance Objectives for Data— Identify the degree of accuracy of sample analysis and how this degree of accuracy will be achieved. Also include within this section the numbers of, frequency, and types of QA/QC samples such as trip blanks, field blanks, equipment blanks, and replicates to be collected.
- 7.3 Sample Custody—Describe how Chain of Custody will be maintained for samples collected for laboratory analysis.
- 7.4 Analytical Procedures—Indicate what specific laboratory methods will be used to analyze samples.
- 7.5 Laboratory QA/QC—Describe the internal QA/QC program to which the laboratory conducting the analyses will adhere. Be sure to identify the laboratory that will be used.
- 7.6 Data Validation and Reporting—Describe how laboratory results will be validated to determine whether QA/QC protocols have been met. A summary of the data validation process, including discussion of the results from analysis of replicates, laboratory or method blanks, matrix spikes and matrix spike duplicates, trip blanks, field blanks, equipment (rinsate) blanks, and other QA/QC samples will be required in the VCI Report. The VCI Work Plan should indicate how data validation will be conducted and that the results from data validation will be provided in the VCI Report.

8.0 Appendix B

A Site Health and Safety Plan consistent with OSHA requirements must be included with the VCI Work Plan. A site specific map indicating the shortest direct route to the nearest hospital is an OSHA requirement. Please note that KDHE does not approve Health and Safety Plans.

VCI Work Plan and Report Formats

VCI Report Format

General: This guidance presents the recommended content and format for VCI Reports. **Please note that this guidance is comprehensive and does not segregate work plan content or format based on the varied contamination classification levels.** Many of the content items are common for all contamination classification levels; this guidance should be used and adapted as appropriate for the specific property and contamination classification being addressed. Please note also that the report format requests information that may be found in sources other than the VCI, such as property records, scientific publications, previous investigations, etc.

1.0 Executive Summary

Provide a preliminary summary of the VCI results.

2.0 Introduction

- 2.1 The introduction should provide a description of the specific objectives developed for the VCI prior to its initiation, include additional objectives established during the implementation of the VCI, and document whether the objectives were achieved or not achieved and why.
- 2.2 Property Background—*If this information was provided in a VCI Work Plan, reference it accordingly.*
 - 2.2.1 Property Location and Demographics—Describe the property location; include a legal description, street address, city, county, and general demographic information concerning the property area. Discuss population density, zoning, and predominant land usage in the vicinity of the property.
 - 2.2.2 Property History—Provide a brief history of the property including operations, ownership, and past property activities until the time of application to the VCPRP.
 - 2.2.3 Previous Investigations—Summarize results and conclusions from previous investigations conducted for the property (list the titles of all investigation reports that have been prepared). Also provide the dates of the current and previous investigations.

VCI Work Plan and Report Formats

3.0 Investigative Activities

Describe in detail all investigative activities conducted as part of the VCI relative to the tasks outlined in the VCI Scope of Work for the property. Categories of information that may need to be specifically addressed (**as applicable to the property's contamination classification**) include:

- Contaminant source areas
- Impacted soil and groundwater
- Impacted surface water and sediments
- Property geology and hydrogeology
- Property soil and vadose zone characteristics
- Property groundwater/aquifer characteristics
- Vadose zone transport, groundwater flow, and groundwater contamination transport modeling
- Human/target population surveys
- Area water well surveys
- Ecological target surveys
- Land use surveys

4.0 Property Physical Characteristics

Provide a detailed description of results obtained from investigative activities conducted during the VCI. Results should relate to each of the applicable categories listed in Section 3.0 above.

5.0 Nature and Extent of Contamination

Present the results of the characterization for the media investigated at the property. Describe in detail the horizontal and vertical extent of contamination identified for each medium characterized during the VCI. Provide reference to specific analytical results obtained during the VCI. Media that might be addressed during the VCI include:

- Sources and source areas
- Soils and vadose zone
- Air
- Groundwater
- Surface water and sediments

VCI Work Plan and Report Formats

6.0 Contaminant Fate and Transport

- 6.1 Potential Migration Routes—Describe the potential routes of contaminant migration (i.e., air, soil, groundwater, surface water, etc.).
- 6.2 Contaminant Characteristics—Describe the physical, chemical, and biological properties of contaminants at the property and provide specifics concerning behavior of these contaminants in the property setting.
- 6.3 Contaminant Migration
 - 6.3.1 Discuss factors affecting contaminant migration for the media of importance (e.g., sorption onto soils, solubility in water, movement of groundwater, etc.).
 - 6.3.2 If modeling has been used, discuss modeling methods and results.

7.0 Identification of Potential Receptors and Land Use

- 7.1 Receptors—Identify any receptors which have been impacted or could potentially be impacted by the contamination. Receptors may include water supply wells, human populations, surface water bodies, sensitive ecosystems such as habitat for endangered species, etc.
- 7.2 Potential Risk—Describe the potential threat to impacted or potentially impacted receptors. Include discussion concerning the toxicity of the contaminant(s) as related to the threat or risk posed, how the receptor has been or may be exposed to the contaminant, and other detail to fully identify the risk posed by the contamination.
- 7.3 Land Use—Describe current and future land use of the property and surrounding properties.

8.0 Summary and Conclusions

- 8.1 Provide a summary of the VCI results addressing primarily:
 - 8.1.1 The nature and extent of contamination
 - 8.1.2 Contaminant fate and transport
 - 8.1.3 Identified receptors/risk
- 8.2 Provide conclusions as derived from the VCI. Also address:
 - 8.2.1 Data limitations
 - 8.2.2 Recommendations for additional investigative work

VCI Work Plan and Report Formats

9.0 Tables

Certain data collected during the VCI must be presented in tables in the VCI Report. Tabulation of specific data must be done **as applicable for the work conducted during the VCI**. Required tables include, but are not limited to:

- 9.1 Soil Quality Field Screening—Provide field screening results for soil as derived from a soil gas survey, surface soil sampling, soil borings, and/or monitoring well borings. More than one table may be required to include the following types of information: 1) sample location identification and sample collection method; 2) date sample was collected and screened; 3) sample interval depth; and 4) results from field screening (concentration and units).
- 9.2 Soil Sample Laboratory Analytical Results—The table should include: 1) sample location identification and sample collection method; 2) date sample was collected; 3) sample depth; 4) target compounds; and 5) concentrations of compounds detected.
- 9.3 Groundwater Screening (Groundwater Survey)—Include the following information: 1) sample location identification and sample collection method; 2) date sample was collected and screened; 3) sample collection depth; and 4) compounds and concentrations (and units) detected during screening.
- 9.4 Well Completion Information—Include the following information: 1) well identification; 2) ground surface elevation; 3) top of casing/measuring point elevation; 4) screen length; 5) top and bottom of screen elevations; 6) total depth of well; 7) static water level elevation; and 8) date of static water level measurement.
- 9.5 Well Purging Data—Provide the following data collected during purging of wells for sampling: 1) date purged; 2) volumes purged; and 3) parameter measurement values (temperature, pH, conductivity, dissolved O₂, etc.—successive parameter measurements should demonstrate stabilization prior to sample collection).
- 9.6 Groundwater Analytical Results—Provide the following information: 1) well identification and sample collection method; 2) date sampled; 3) target compounds; 4) concentrations of contaminants detected; 5) analytical method and detection limits for each compound; and 6) appropriate data validation qualifiers.
- 9.7 Unsaturated and/or Saturated Zone Hydrogeological Testing Results—Tabulate the results from vadose zone and/or aquifer testing.

VCI Work Plan and Report Formats

10.0 Figures

The following figures should be included in the VCI Report **as applicable to work conducted as part of the VCI**.

- 10.1 A figure based on a USGS 7.5' topographic quadrangle depicting the property location.
- 10.2 A Site Map, to scale, that depicts the entire property, property boundaries, buildings and other pertinent features on the property, surrounding properties, potential source areas, and potentially impacted receptors.
- 10.3 A sampling location map that depicts the locations of monitoring wells, soil borings, soil gas and groundwater survey probe locations, surface soil sampling locations, etc. It may be necessary to prepare separate maps for sampling locations to keep the map legible; e.g., separate maps for monitoring well locations versus groundwater survey probe locations.
- 10.4 Potentiometric surface map—control points must be labeled and data such as static water level elevations at control points must be depicted on the map.
- 10.5 Geologic cross sections (as applicable)—at least two cross sections should be prepared that depict the geology of the property. The cross sections should be oriented longitudinally and transversely with respect to the orientation of soil and/or groundwater contaminant plumes. The potentiometric surface should be depicted on the cross section.
- 10.6 Soil contamination extent maps—either isocontoured soil analytical data or the general extent of soil contamination should be indicated.
- 10.7 Groundwater contamination isoconcentration maps—these maps should depict the extent and degree of groundwater contamination in each aquifer or aquifer subunit present (i.e. upper and lower zones). It may be necessary to prepare an isocontour map for each contaminant, suite of contaminants, and/or total contamination.
- 10.8 Separate phase product isopach map—if separate phase product is encountered, a map depicting product extent and thickness must be provided.

VCI Work Plan and Report Formats

11.0 Appendices

Appendices containing the following material, **as applicable to work conducted during the VCI**, must be included in the VCI Report. Appendices that contain other pertinent material should be developed and included as necessary.

- 11.1 Soil boring and monitoring well construction logs.
- 11.2 Soil gas or groundwater survey analytical reports and QA/QC results.
- 11.3 Laboratory analytical reports for soil sample analysis.
- 11.4 Laboratory analytical reports for groundwater analysis.
- 11.5 Data validation and usability summary.
- 11.6 Vadose zone or aquifer testing data and parameter estimation calculations.
- 11.7 Vadose zone or groundwater flow modeling data and results.
- 11.8 Pertinent correspondence such as communications with regulatory agencies relative to permitting, waste characterization and disposal, etc.
- 11.9 Photographs—preferred by KDHE although not specifically required, photographs of property features, investigative activities, etc., are useful in providing additional documentation for the VCI report.

Voluntary Cleanup Scopes of Work

The Voluntary Cleanup Decision

KDHE will use the information contained in the approved VCI Report to support a No Further Action determination or to determine that a voluntary cleanup of the property will be necessary. A voluntary cleanup will be expected when the analytical data contained in the VCI Report indicates that contamination at a property exceeds chemical- and media-specific risk-based cleanup levels as established by KDHE in the RSK Manual. KDHE may also determine that conditions at the property are in violation of other applicable federal, state, and local laws and/or regulations. Voluntary cleanup will be required by KDHE to protect human health and the environment if the established cleanup standards are exceeded. A No Further Action determination may be issued by KDHE if analytical data indicates that the established cleanup standards have been met.

Voluntary cleanups may be as simple as monitoring or establishing institutional controls (Environmental Use Controls) or they may involve actual cleanup such as soil removal, groundwater treatment systems, in situ treatment, etc. The scopes of work for a voluntary cleanup presented in this section provide general guidance to voluntary parties and their consultants in preparing necessary documentation for a Voluntary Cleanup Proposal. Additionally, documentation of QA/QC and health and safety planning will be required for the Voluntary Cleanup Plan. The voluntary party may elect to conduct a property-specific risk analysis concurrent with preparing a Voluntary Cleanup Plan to support the selected cleanup alternative and/or to justify the property-specific cleanup levels proposed in the cleanup plan. The voluntary

party must obtain KDHE’s approval before initiating a property-specific risk analysis.

The Voluntary Cleanup Proposal

If KDHE determines that a voluntary cleanup will be required, KDHE will notify the voluntary party. The voluntary party will then submit a Voluntary Cleanup Proposal to KDHE following the scope of work contained in this section. The Voluntary Cleanup Proposal must compare at least two alternatives, not including a “no action” alternative. The proposal must document the expected ability of each cleanup alternative to obtain the degree of cleanup and control of contaminants necessary to meet applicable cleanup levels. The Voluntary Cleanup Proposal must also select one of the proposed remedial alternatives as the preferred alternative and provide a full description and evaluation of the preferred alternative.

The Voluntary Cleanup Plan

KDHE will review the Voluntary Cleanup Proposal and determine if the preferred alternative is acceptable. Following KDHE’s approval of the Voluntary Cleanup Proposal, the voluntary party will prepare a Voluntary Cleanup Plan following the scope of work contained in this section. Should pre-design work be necessary at a property, the voluntary party should submit an appropriate work plan to KDHE for approval before proceeding and complete that work before submitting the Voluntary Cleanup Plan. Once an acceptable Voluntary Cleanup Plan has been submitted, the public will be formally notified and any comments received from the public must be considered before final approval is provided by KDHE. At KDHE’s discretion, the

Voluntary Cleanup Scopes of Work

Voluntary Cleanup Plan may be altered to incorporate appropriate and substantive comments and issues raised by the public.

The Voluntary Cleanup Plan will essentially be a work plan for cleanup and/or monitoring at a property. The complexity of the plan will vary with each property. The plan may be as simple as a long-term monitoring plan or as complex as a detailed engineering design for an aggressive remediation system. The primary objectives of a Voluntary Cleanup Plan are:

- Describe all tasks necessary to implement the selected voluntary cleanup alternative.
- Provide detailed design plans and specifications for the full implementation of the cleanup, as well as an operation and maintenance manual.
- Identify and obtain all necessary easements and permits required for implementation of the cleanup.
- Summarize the risk-based cleanup levels selected for the property.
- Include a plan to monitor the effectiveness of the cleanup during implementation and operation.
- Include a verification sampling plan.

The primary objectives of monitoring are to:

- Provide continuous evaluation of property conditions including hydrogeologic conditions, fluctuations of contaminant levels in the various environmental media, etc.

- Evaluate the progress of ongoing remediation efforts.
- Establish compliance with cleanup levels at the conclusion of cleanup.
- Identify post-remedy changes in contaminant levels.
- Provide a basis to justify issuance of a No Further Action determination.

Verification Sampling

When the voluntary party and their consultant believe that cleanup levels contained in the Voluntary Cleanup Plan have been achieved, they must notify the KDHE project manager and request verification sampling (see Section 16 for details). Verification sampling is carried out jointly by KDHE and the voluntary party's consultant. If all contaminated media at the property meet the accepted risk-based cleanup levels, KDHE will request the voluntary party to have their consultant prepare a Voluntary Cleanup Report.

Voluntary Cleanup Scopes of Work

The Voluntary Cleanup Report

A Voluntary Cleanup Report will be submitted to KDHE when the cleanup levels contained in the Voluntary Cleanup Plan have been attained. In some cases, such as a property where the voluntary cleanup consists only of excavation and treatment or disposal of contaminated soil, the pre-established cleanup levels can be readily achieved, at which time the cleanup would be considered complete. Verification sampling is required before backfilling with clean or treated soil. In groundwater cleanups, KDHE may require groundwater monitoring for an additional period of time to verify achievement of cleanup levels once the cleanup level is initially reached.

Generally, the Voluntary Cleanup Report must demonstrate that one or more of the applicable criteria listed below have been achieved:

Groundwater and Surface Water Criteria:

1. Analytical results from indicator sampling locations, as contained in the KDHE-approved Voluntary Cleanup Plan, indicate concentrations of contaminants are below established cleanup objectives and have been maintained for four consecutive, equally time-sequenced sampling episodes conducted under KDHE oversight over a period of not less than two years; *or*
2. Analytical results from indicator sampling locations, as specified in the KDHE-approved Voluntary Cleanup Plan, do not exceed background levels for four consecutive, equally time-sequenced sampling episodes conducted under KDHE oversight over a period of not less than two years.

Soil Criteria:

1. Analytical results do not exceed the pre-established soil cleanup levels for discrete sampling of the soil at locations and depths as specified in the KDHE-approved Voluntary Cleanup Plan; *or*
2. Analytical results do not exceed background levels for discrete sampling of the soil at locations and depths specified in the KDHE-approved Voluntary Cleanup Plan.

Background levels are defined for the purpose of the VCPRP to include concentrations of contaminants that are at:

- Naturally occurring levels, which are ambient concentrations of chemicals present in the environment that have not been influenced by humans.
- Anthropogenic levels, which are concentrations of chemicals that are present in the environment due to human-made non-property sources.

Voluntary Cleanup Scopes of Work

Special Considerations:

1. In some instances, it may not be feasible to entirely remove soil contamination at a property. The voluntary party may still be able to petition KDHE for a No Further Action determination if the property can be demonstrated to meet the following conditions:
 - An effort must be made to isolate the contamination from future leaching or surficial exposure, as through capping, stabilization, or an Environmental Use Control Agreement.
 - The voluntary party must demonstrate that no continuing sources of contamination exist at the property.
 - The voluntary party must have conducted no less than two years of groundwater (or surface water, as appropriate) monitoring after completing the soil remedy to verify that the remaining soil contamination has not impacted groundwater or surface water and is not likely to do so in the future.
2. If the above criteria do not apply to a property, the voluntary party may still petition for a No Further Action determination by providing appropriate justification and a concise description of all special circumstances for the subject property.

Once the criteria listed above for completion of the voluntary cleanup have been achieved, the voluntary party must submit the Voluntary Cleanup Report to KDHE for review and approval. The cleanup report will contain adequate documentation to verify that the cleanup objectives have been achieved. A suggested format for a Voluntary Cleanup Report is included in this section.

KDHE will review the Voluntary Cleanup Report and will notify the voluntary party by letter of the outcome of the review. Additional information may be requested by KDHE prior to final approval of the Voluntary Cleanup Report. KDHE expects the report to be brief and concise, referencing the Voluntary Cleanup Plan, Voluntary Cleanup Investigation Report, and monitoring reports to the extent practical. The Voluntary Cleanup Report will enable KDHE to determine that the cleanup has been completed and that verification sampling is now appropriate prior to final closure of the property.

Voluntary Cleanup Proposal Scope of Work

Introduction

This Scope of Work provides guidance for preparing a Voluntary Cleanup Proposal in accordance with K.A.R. 28-71-9(d). The objectives of the Voluntary Cleanup Proposal are to describe cleanup alternatives and the voluntary party's process and rationale used to select a cleanup alternative that will meet the following objectives:

- Be protective of human health and the environment for documented present and future land uses.
- Meet all applicable state standards and guidelines for cleanup or meet risk-based cleanup goals calculated through an approved property-specific risk analysis.
- Evaluate remedial alternatives that are proven reliable and economically and technically feasible.

The Voluntary Cleanup Proposal must compare a minimum of two alternatives, not including the "no action" alternative, document the ability of each remedial alternative to attain the degree of cleanup and control of contaminants required, and provide a full description and evaluation of the voluntary party's preferred remedial alternative. In developing the Voluntary Cleanup Proposal and comparing cleanup alternatives, the voluntary party may select one of three available approaches to determine required cleanup levels as outlined in K.A.R. 28-71-11(c)

1. KDHE-approved methods to determine background levels.
2. Risk-based cleanup levels established by KDHE.
3. A property-specific risk analysis employing KDHE-approved formulas, exposure parameters, and land use scenarios.

Guidance for the above mentioned methods of determining cleanup levels are contained in the Risk-based Standards for Kansas Manual available on the Internet. The approach selected and resulting cleanup levels determined for the property must be approved by KDHE.

Voluntary Cleanup Proposal Scope of Work

Selecting Cleanup Alternatives for Evaluation

The process for comparing cleanup alternatives in the Voluntary Cleanup Proposal should include the following:

- Develop an initial list of remedial alternatives and technologies that are applicable to the contaminants, the impacted media, and the potential exposure pathway(s), and that have the potential to meet the cleanup levels required for the property.
- Establish screening criteria, generally including effectiveness, implementability, cost, and other pertinent criteria, and applying the criteria to the initial list of remedial alternatives and technologies to derive a minimum of two cleanup alternatives that will be retained for further detailed evaluation.
- Conduct a detailed evaluation based on prescribed criteria (discussed below).
- Propose a cleanup alternative which will meet established cleanup levels and is the most appropriate based on the evaluation process.

The initial screening of alternatives is recommended if various plausible cleanup options exist. Initial screening may not be useful in some instances where available cleanup options are limited. If multiple media are impacted by contamination (for example surface soil, subsurface soil, and groundwater), media-specific remedial alternatives may need to be evaluated and then combined into multiple-media remedial alternatives for more detailed evaluation. For additional guidance and considerations on development of cleanup alternatives, refer to K.A.R. 28-71-11(a) through (g).

Evaluating Remedial Alternatives

Once at least two cleanup alternatives (not including the “no action” alternative) have been selected, the next step involves evaluating and comparing them to document the why the preferred alternative should be selected. The criteria used for the detailed evaluation include:

- **Overall protection of human health environment**—This criterion considers meeting cleanup levels for various impacted media, eliminating or mitigating direct or indirect risk exposure pathways, considers current and potential future land use scenarios, and considers short- and long-term protection.
- **Compliance with federal, state, and/or local laws, regulations, and rules**—All aspects of the remedial alternative must adhere to any applicable laws, rules, or regulations. These types of requirements are referred to in federal guidance as “Applicable or Relevant and Appropriate Requirements” (ARARs). A listing of some common ARARs may be obtained from KDHE upon request.

Voluntary Cleanup Proposal Scope of Work

- **Long-term and short-term effectiveness**—Each alternative should be evaluated on its effectiveness in protecting human health and the environment. Short-term effectiveness refers to the effectiveness during the period of construction, implementation, and active cleanup; long-term refers to effectiveness after the cleanup is complete. When considering effectiveness, emphasis should be directed toward the reductions in contaminant toxicity, mobility, and volume that each alternative will achieve.
- **Implementability**—Refers to the feasibility of implementing a cleanup action considering technical and administrative requirements. Technical considerations include feasibility of constructing, operating, and maintaining cleanup systems and meeting technology-specific regulations. Administrative considerations generally include the ability to obtain approvals from regulatory entities such as discharge permits, disposal authorizations, etc.
- **Cost**—The cost of implementing each cleanup alternative must be estimated for comparison. Costs to consider include capital costs (direct - construction, equipment, etc.; indirect - engineering, permit fees, start-up costs), future operation and maintenance (O&M) costs, monitoring costs, and other associated costs. If the remedial alternatives provide varying overall cleanup time frames, the future costing should account for the alternative-specific cleanup time frame.
- **Community acceptance**—Anticipated issues or concerns the public may have regarding each remedial alternative must be considered. The VCPRP process requires public notification and invites public comment on the Voluntary Cleanup Plan (which follows the approved Voluntary Cleanup Proposal). Considerations for community acceptance of cleanup alternatives should be taken into account throughout the cleanup alternative development process.

Selecting a Preferred Remedial Alternative

Following the cleanup alternative development and evaluation process, the voluntary party will select and propose a preferred cleanup alternative to KDHE. The preferred remedial alternative will be described in the Voluntary Cleanup Proposal with documentation of the alternative selection and evaluation process.

This scope of work presents the recommended content and format for the Voluntary Cleanup Plan. **Please note that this guidance is comprehensive and does not segregate work plan content or format based on the varied contamination classification levels or the type of cleanup.** Since many of the content items are common for all contamination classification levels and the primary difference between classification levels relates to the affected environmental media, this guidance should be used and adapted as appropriate for the specific conditions at the property being addressed.

Voluntary Cleanup Plan Scope of Work

1.0 Introduction

- 1.1 Property Background/History—Provide a very brief overview of the property background and investigative history including information such as the property location (city, county, legal description, street address, etc.), what the property is used for and what it has been used for in the past, and other pertinent information about the property. The Voluntary Cleanup Investigation may be referenced in lieu of repeating the information in the Voluntary Cleanup Plan.
- 1.2 Objectives—Provide a concise overview of the objectives of the Voluntary Cleanup Plan, the conceptual remedial approach for the property, and how the remedial approach is intended to accomplish the objectives of the cleanup with specific reference provided to contaminants and sources, contaminated media, migration pathways, exposure pathways, and applicable cleanup levels. The Voluntary Cleanup Proposal may be referenced in lieu of repeating the information in the Voluntary Cleanup Plan.

2.0 Cleanup Tasks

This section of the Voluntary Cleanup Plan describes the procedures for implementing remediation or monitoring. Include detail sufficient to meet KDHE's information needs for approval of the plan. Voluntary parties must adapt the required content outlined in this guidance to the specific conditions at their property.

- 2.1 Definition of Cleanup—This section will define the proposed voluntary cleanup. Specifics on the nature, extent, and concentrations of contamination to be cleaned up should be included, as well as a description of the general nature of the remediation to be implemented and cleanup goals to be achieved. Reference to an approved Voluntary Cleanup Investigation Report or Voluntary Cleanup Proposal may be made in lieu of repeating the information in the Voluntary Cleanup Plan.
 - 2.1.1 Soil Contamination—Discuss the vertical and horizontal extent and degree of contamination with reference to appropriate figures.
 - 2.1.2 Groundwater Contamination—Discuss the vertical and horizontal extent and degree of contamination with reference to appropriate figures.
 - 2.1.3 Cleanup Objectives—***This is the most important part of a Voluntary Cleanup Plan.*** In this section, the voluntary party will present the rationale for deciding which of the contaminants described in 2.1.1 and 2.1.2 will need to be cleaned up and the specific cleanup level for each contaminant. Cleanup objectives will be risk-based and the voluntary party will use the RSK Manual to determine the cleanup objectives. Basically, there are three levels or Tiers for determining cleanup objectives:

Voluntary Cleanup Plan Scope of Work

- Tier 1 cleanup objectives are determined only for contaminants that are naturally occurring in the environment. In these cases, a voluntary party may choose to clean up a property to background levels for appropriate contaminants. Methods for determining background levels are included in the RSK Manual.
- Tier 2 cleanup objectives consist of specific levels of each contaminant, in soil and/or water, that may remain at a property after cleanup in non-residential and residential land use settings. These values are based on risk to human health and the environment and are tabulated in the RSK Manual. KDHE anticipates that using the pre-established contaminant levels in Table A of that manual will be the most common method for setting cleanup objectives for anthropogenic contaminants.
- Tier 3 cleanup objectives are based on a property-specific risk analysis performed by the voluntary party in consultation with the VCPRP project manager. Performing a Tier 3 analysis will require considerably more information than either the Tier 1 or Tier 2 methods. Tier 3 evaluations must be performed with KDHE oversight.

2.1.4 Cleanup Approach—Discuss the remedial approach to be used for each area of contamination discussed in 2.1.1 and 2.1.2 in order to reach the cleanup objectives selected in 2.1.3. The remedial approach will vary significantly between properties and this overview will need to be tailored to the specific property. Listed below are some common remedial actions and approaches.

2.1.4.1 Soil Remediation/Excavation

- Describe the area extent and depth to be excavated and portray those areas on figures.
- Describe contaminated soil handling and disposal procedures.
- Describe any on-property treatment, land farming, stockpile areas, treatment piles, etc., including treatment facilities/methods.
- Describe backfilling and regrading to be performed, including origin and analytical testing of replacement soil.

2.1.4.2 Soil Remediation/In-situ Treatment

- Provide descriptions, maps, and cross-sections showing the number and location of wells, designed radius of influence, cleanup levels to be achieved, etc.
- Provide the rationale behind proposed well construction designs and provide an illustration of a typical proposed well construction.

Voluntary Cleanup Plan Scope of Work

- Describe the overall system for injection or extraction, including rates and volumes.
- Describe the nature and purpose of any injectate other than ambient air.
- Describe and illustrate system components, including blowers, pumps, and off-gas treatments.
- Describe target cleanup goals, time frames, and effluent concentrations.

2.1.4.3 Groundwater Remediation

- Describe and illustrate treatment processes, and the number and location, purpose, and construction of wells.
- Describe the nature and purpose of any proposed injectate.
- Describe major treatment system components and illustrate the hydrogeology of the system, including injection or withdrawal rates and expected capture zones or areas of influence of the wells.
- Discuss cleanup goals, performance expectations, and time frames.
- Discuss effluent concentrations and the proposed handling, treatment, and disposal of effluent.

2.1.4.4 Other Cleanup Methods

- Provide a detailed description of the remedial process and technology.
- Discuss the remedial objectives for the property and demonstrate that the chosen process will achieve the objectives.
- Discuss past results of the remedial process at other properties where it has been successfully employed.
- Describe the monitoring required to determine progress and effectiveness of the proposed process.

2.1.5 Permitting/Regulatory Involvement—Describe all applicable permitting requirements for the proposed remedial project and all local, state, and federal regulatory requirements. Typical permits may include air discharge permits, solid waste disposal authorizations, ground or surface water appropriation permits, underground injection control permits for injection or

Voluntary Cleanup Plan Scope of Work

reinjection, National Pollutant Discharge Elimination System permits for discharge to surface water, local permits for discharge to sanitary sewers, etc. Other requirements to be identified in this section include local building, plumbing, and electrical permits for the project; necessary easements and/or variances; and access agreements.

2.1.6 Remediation System Plans and Specifications—If the remedial approach will involve mechanical systems such as soil venting systems, groundwater recovery wells, treatment systems, etc., plans and specifications for the mechanical systems must be included in or accompany the Voluntary Cleanup Plan. Engineering drawings and specifications must be submitted to KDHE for review and comment prior to soliciting bids. Project documents must contain sufficient information to allow KDHE reviewers to determine if the proposed system(s) will function as intended and achieve remedial objectives. A Kansas-registered Professional Engineer must seal engineering designs.

2.1.6.1 Maps—Plans must include an appropriate property base map, maps and cross-sections showing the vertical and horizontal extent of contamination, and maps portraying the physical relationship of the mechanical systems, wells, etc., to the contamination. Figures provided in previous sections of the plan may be referenced.

2.1.6.2 Equipment Specifications—Provide manufacturers' cut sheets with performance data for major equipment items.

2.1.6.3 Process and Instrumentation Diagram (P&ID)—A P&ID must be provided depicting flow rates, system interlocks, major system components, control valving and metering, etc.

2.1.6.4 Wiring Diagram—An electrical wiring one-line or ladder diagram must be provided. A table must be included on the drawing to provide the following information about motors, motor starters, circuit breakers, etc.:

- The type of power supply (phase, cycles, voltage, and amperage capacity).
- Circuit breaker or fuse ratings, motor control sizes, controls, wire sizes, and load for each branch of the circuit.
- Interlocks, meters, remote controls, modems, computers or control logic systems, and safety or alarm systems.

2.1.6.5 Property Layout—A diagram must be provided to depict piping sizes and locations, well locations and construction, discharge locations, and all other pertinent remedial system property features.

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- 2.1.6.6 Building Plans—Elevation and plan views of any equipment buildings to be constructed at the property must also be provided.
- 2.1.6.7 System Design Criteria—Engineering design information must be provided. This type of information includes, but is not limited to:
- Calculations of head loss for piping (rationale for piping size selection),
 - System head loss calculations and rationale for the selection of pumps, blowers, motors, and other major system components,
 - Emissions and/or effluent estimation calculations.
 - Specific system operational parameters (e.g., air-to-water ratios for strippers, allowable flow rates, breakthrough times, pressure capacities, ASME code stamp requirements for GAC vessels, required construction materials for all pertinent equipment, recommended or required instrumentation for equipment, pretreatment requirements, etc.).
- 2.1.6.8 Operation and Maintenance (O&M)—The Voluntary Cleanup Plan must clearly indicate that an O&M manual will be prepared and submitted and must include a description of the manual’s proposed content. The O&M manual will not need to be submitted to KDHE with the Voluntary Cleanup Plan, but should be submitted after system installation and startup in accordance with the schedule provided in the Voluntary Cleanup Plan. The manual should describe all operational procedures and maintenance requirements for any remedial system(s) installed, including detail on what O&M is required for the system, the frequency for O&M tasks, and who will be conducting those tasks.
- 2.1.6.9 Startup Report—A final Startup Report must be submitted within 60 days following startup of the remedial system(s). The voluntary party may submit the Startup Report and the O&M manual together, in accordance with the schedule provided in the Voluntary Cleanup Plan. The Startup Report is to serve as official notice to KDHE that the system has been installed and active remediation has commenced, and that the system is operating as designed.

If remedial systems were installed as designed, a statement to that effect will be required. If “As-Built” drawings are prepared, these should be submitted also. Any major modifications to the design upon system installation should be described in detail with supporting drawings, diagrams, and specifications as well as rationale for the changes. The Startup Report may also serve as the initial monitoring

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report, in which case the content listed in Section 2.1.6 should be included. Suggested content for the Startup Report is listed below:

- The date startup actually occurred.
- A description of any “fine tuning” conducted on the system and the resulting operational parameters that were identified.
- A discussion of any modifications that were made to remedial systems upon installation along with the rationale for the modifications.
- A description of any problems that occurred during construction of the remedial system(s) or upon startup.
- A tabulation of system monitoring data such as influent, effluent, and emissions analyses.
- Groundwater potentiometric surface maps, if applicable, which will demonstrate the capture radius of recovery wells.
- Documentation that all necessary permits were obtained, including copies of the permits.
- A discussion of the actual system operation and effectiveness as compared to the predicted performance of the remedial design.
- Boring logs, well construction diagrams, laboratory reports for analytical work, chain-of-custody forms, etc.
- A discussion of volumes and final handling methods for wastes generated during remedial system implementation.
- A general summary of the implementation and an assessment of whether the remedial approach will achieve the remedial objectives.

2.1.7 Monitoring Requirements/Plans—The monitoring requirements listed within this section generally pertain to property monitoring in lieu of remediation, monitoring during remediation, and post-remedial verification monitoring. These monitoring requirements will pertain to monitoring groundwater conditions and quality, and possibly other media such as soil vapor extracted via a remedial system. The voluntary party may have to adapt these requirements to develop an acceptable monitoring plan for their property.

A monitoring plan must be developed as a section of the Voluntary Cleanup Plan. The monitoring plan describes a strategy for achieving property-specific monitoring objectives. After monitoring has been conducted for some time,

Voluntary Cleanup Plan Scope of Work

it may be appropriate to either increase or decrease monitoring points, frequencies, or analytes. The monitoring plan should, at a minimum, address the elements listed below:

- 2.1.7.1 Monitoring Objectives—An identification of the monitoring objectives for the specific property.
- 2.1.7.2 Monitoring Points—The points of the system to be monitored should be documented. This includes wells and/or remedial system operational parameters to be sampled.
- 2.1.7.3 Monitoring Schedule—Monitoring should be conducted often enough to achieve monitoring objectives. Monitoring schedules may vary for different groupings of sampling points at a property, for instance, system operation parameters might be sampled monthly while groundwater wells are sampled only quarterly. A rationale for each monitoring schedule should be included.
- 2.1.7.4 Monitoring Parameters—Identify what will be monitored.
 - Static water levels relative to mean sea level datum.
 - Contaminants analyzed.
 - Anticipated levels of contaminants in media at sampling points.
 - Operational parameters for the remedial system(s) and their ramifications for system modifications.
- 2.1.7.5 Standard Operating Procedures (SOPs)—Sampling for monitoring should be carried out using SOPs in accordance with the QAPP. A strategy for maintaining the efficacy and representativeness of the monitoring program should be included as well as laboratory analytical methods to be used.
- 2.1.7.6 Monitoring Reports—A monitoring report must be submitted after each monitoring event reporting results and evaluating the effectiveness of the remediation and/or monitoring system. The proposed format and content for monitoring reports should be provided in this section of the Voluntary Cleanup Plan. Each monitoring report should contain the following information, as appropriate:
 - A discussion of the monitoring event, which should include property conditions, date and time, problems, deviations from approved procedures, and a general description of monitoring work conducted.

Voluntary Cleanup Plan Scope of Work

- Tabulated data such as static water levels, purging parameters, analytical results, and remedial system operational parameters, including the most recent data as well as all historical data for comparison.
- Groundwater potentiometric surface maps.
- Contaminant concentration isopleth maps.
- Supporting documentation such as laboratory reports and chain-of-custody forms.
- A summary of monitoring results, a discussion of the effectiveness of remedial efforts by comparison of recent and past data, a discussion of any changes in contaminant concentrations or distribution, and other information to demonstrate compliance with the established monitoring objectives.

2.1.8 Investigative Derived Wastes and Other Wastes—The voluntary cleanup plan must address how wastes generated from installation and operation of remedial systems will be characterized, treated, or disposed of.

3.0 Schedule

Provide a detailed schedule of proposed voluntary cleanup activities which specifically identifies the dates and time frames for implementing and completing the significant tasks of the cleanup.

4.0 References

Provide a comprehensive listing of resources referenced for preparation of the Voluntary Cleanup Plan.

5.0 Tables

Provide tables of information and data for quick reference within the Voluntary Cleanup Plan. Tabulated data such as field screening data, laboratory analytical data, water level data, and well completion data should be included.

6.0 Figures

At a minimum, the following figures must be included in the Voluntary Cleanup Plan. All figures must have a scale.

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- A figure based on a USGS 7.5' topographic quadrangle map depicting the property location.
- A property map that depicts the entire property, buildings, and pertinent property features, surrounding properties, source areas, and potentially impacted receptors.
- Any figures from previous investigation reports such as potentiometric surface maps or figures depicting known source areas and known extent of contamination.
- Any figures necessary to illustrate remedial approaches, such as a figure depicting areas to be excavated accompanied by a figure to depict verification sampling locations, etc.

7.0 Appendix A - Quality Assurance Project Plan

A QAPP must be developed to describe the policy, organization, functional activities, and QA/QC protocols necessary to ensure data quality. If KDHE approved the Voluntary Cleanup Investigation Work Plan and its required QAPP, reference to the VCI Work Plan QAPP, as appropriate, is acceptable. The QAPP must contain the following information:

- 7.1 Key Personnel—Key personnel or organizations that are necessary for each activity during the voluntary cleanup, along with their responsibilities, must be identified. This information may be presented in a table.
- 7.2 Quality Assurance Objectives for Data—Identify the degree of accuracy of sample analysis and how this degree of accuracy will be achieved. Also identify the numbers and types of QA/QC samples such as trip blanks, equipment blanks, and replicates and the frequency at which they will be collected.
- 7.3 Sample Custody—Describe how chain-of-custody will be maintained for samples collected for laboratory analysis.
- 7.4 Analytical Procedures—Specify laboratory methods to be used for analysis of samples.
- 7.5 Laboratory QA/QC—Provide a description of the laboratory's internal QA/QC program.
- 7.6 Data Validation and Reporting—A description of how laboratory results will be validated should be included, summarizing how data is reviewed after being received from the laboratory to determine whether QA/QC protocol goals have been met. The data validation summary must include sufficient detail to allow KDHE to verify that data has been properly validated. The summary must address the data validation process, including discussion of results from analysis of replicates,

Voluntary Cleanup Plan Scope of Work

laboratory or method blanks, matrix spikes and matrix spike duplicates, trip blanks, field blanks, equipment (rinse) blanks, and any other QA/QC samples. The discussion should identify how deviations in the QA/QC sample results may affect the usability or interpretation of project sample results.

8.0 Appendix B - Field Sampling Plan

The Field Sampling Plan should describe field activity, remediation program sampling, or monitoring sampling in detail and should consist of the following sections.

- 8.1 Sampling Objectives—Describe the specific objectives of each sampling effort relative to the intended use of the data; e.g., for field screening of soil samples collected while drilling, indicate the objective of the soil sampling and how the field screening data will be used. Alternatively, field screening as part of an excavation remedial effort might be conducted to determine when verification samples should be collected.
- 8.2 Sampling Locations and Frequency—Define what, when, and where samples will be collected. This should include samples for field screening and samples for laboratory analysis relative to all media being sampled.
- 8.3 Sampling Equipment and Procedures—Define how samples will be collected. This should contain or refer to sampling SOPs, or otherwise describe the sampling process. Any equipment used should be identified and described. Sampling QA/QC procedures such as decontamination methods should be described.
- 8.4 Sample Handling and Analysis—Describe sample handling tools, containers, preservation methods, shipping requirements, holding times, and chain-of-custody procedures.

9.0 Appendix C - Health and Safety Plan

A Site Health and Safety Plan consistent with OSHA requirements must be included with the Voluntary Cleanup Plan. This can be similar to the Health and Safety Plan required for the Voluntary Cleanup Investigation Work Plan.

Voluntary Cleanup Report Scope of Work

1.0 Introduction

- 1.1 Property Information—Briefly summarize information about the property, including the property name, location, and general history relative to the VCPRP, including dates of voluntary actions such as submission and approval or execution of the agreements, cleanup investigations, cleanup plans, etc. Present a brief discussion of why cleanup or monitoring was necessary for the property, including the identification of contaminants of concern, concentrations, actual or potential receptors, etc.
- 1.2 Cleanup Objectives—Summarize the cleanup objectives selected in the Voluntary Cleanup Plan as approved by KDHE.

2.0 Documentation/Completion of Cleanup

The information provided by the Voluntary Cleanup Report should clearly demonstrate that the voluntary cleanup objectives have been met and justify proceeding to the verification sampling stage of final closure. Reference should be made to previous VCPRP documents, when appropriate. When analytical data is included to support termination of the cleanup effort, the results of all sampling in the time period required for monitoring in the Voluntary Cleanup Plan should be included; i.e., if three years of quarterly sampling were required, include all three years of data in this document.

- 2.2 Soil Contamination—Provide an overview of cleanup activities implemented to address soil contamination. Analytical data, including both field screening and laboratory results, should be tabulated and included in the “Tables” section. Supporting figures should be referenced in the text and provided in the “Figures” section. The type of information to be provided in this section includes, but is not limited to:
 - Total volumes of soil excavated, treated, and/or disposed of.
 - Reference to a figure showing locations of soil excavation.
 - A discussion of field screening and/or laboratory analytical results from sampling which verify that cleanup levels were achieved, or any other analytical work conducted as part of the remedial implementation.
 - A discussion of results from implementation of other types of soil remediation, such as soil venting, bio-venting, etc.
 - Analytical results which demonstrate cleanup levels have been achieved, such as samples from confirmatory soil borings conducted after soil venting is considered complete, etc.
 - Other information as appropriate for the implemented remediation to verify that cleanup levels have been achieved.

Voluntary Cleanup Report Scope of Work

2.3 Ground/Surface Water Contamination—Information requested in this section should be provided for any voluntary cleanup where groundwater or surface water monitoring was conducted, or where monitoring was conducted in lieu of remediation. The information to be submitted includes, but is not limited to:

- Total volumes of water diverted, treated, and/or disposed of.
- Reference to a figure showing monitoring locations.
- A discussion of field screening and/or laboratory analytical results from sampling which demonstrate that cleanup levels were achieved, or any other analytical work conducted as part of the cleanup implementation.
- A discussion of the property setting and physical characteristics (such as hydrogeology, groundwater flow direction, etc.) which when considered with the analytical data, support that cleanup objectives have been achieved.
- Volumes of contaminants removed during the remediation.
- Other information necessary for KDHE to verify that cleanup levels have been achieved.

3.0 Summary and Conclusions

Provide a summary of the overall voluntary cleanup effort and a brief statement of conclusions. The summary should clearly demonstrate why a No Further Action determination should be made for this property.

4.0 Tables

Provide tables of information, such as field screening and/or laboratory data, as appropriate, to demonstrate that cleanup objectives have been achieved.

5.0 Figures

Figures should be included to illustrate key issues relative to the voluntary cleanup. Potential figures to be included are:

- A figure based on a USGS 7.5' topographic quadrangle depicting the property location.
- A property map that depicts the entire property, buildings, and pertinent property features, surrounding properties, source areas, and potentially impacted receptors.

Voluntary Cleanup Report Scope of Work

- Figures to depict remediation related features such as areas excavated, actual locations of verification sampling, etc.
- Figures to depict post-remedial property conditions such as contaminant concentrations isopleths, water table maps, etc.
- Any figures necessary to illustrate other key aspects of the property-specific voluntary remediation or monitoring.

6.0 Appendices

Attach appendices to the Voluntary Cleanup Report to provide specific information about the cleanup, as necessary. Appendices to be provided include;

- An appendix containing laboratory reports and QA/QC information - this would pertain to analyses for which such supporting documentation has not been previously provided. Examples would include supporting documentation for verification sampling conducted as part of contaminated soil excavation, treatment, and/or disposal, or the latest round of groundwater sampling, etc.
- Although not required, photographs of key activities conducted during the voluntary cleanup could provide additional support for a No Further Action determination.

**SUPERFUND MEMORANDUM OF AGREEMENT
BETWEEN THE
KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
AND THE
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION VII
VOLUNTARY CLEANUP AND PROPERTY REDEVELOPMENT PROGRAM
AND
STATE COOPERATIVE PROGRAM**

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I. PURPOSE

The Kansas Department of Health and Environment (KDHE) and Region VII of the United States Environmental Protection Agency (Region VII), enter into this Superfund Memorandum of Agreement (MOA) for the purposes of acknowledging the adequacy of the Kansas Voluntary Cleanup and Property Redevelopment Program (VCPRP) and the Kansas State Cooperative Program (SCP), defining the roles and responsibilities of Region VII and KDHE, and clarifying the division of responsibilities with respect to sites addressed under the authority of the VCPRP and SCP.

II. BACKGROUND

Region VII and KDHE agree that the revitalization of contaminated properties, or properties perceived to be contaminated, (often called "Brownfields") will provide a significant benefit to the environment and economies of the local communities of the state of Kansas. To the extent possible, Region VII and KDHE seek to simplify the revitalization of industrial and commercial properties by addressing the existing regulatory impediments to the cleanup, financing, transfer, and appropriate use of these properties.

Both agencies will work in a cooperative and coordinated effort to ensure that successful implementation of this effort is accomplished and pledge to employ their authorities and resources in a complimentary and non-duplicative manner.

III. SELECTION OF SITES

- A. VCPRP sites included under this MOA must meet the eligibility requirements under K.S.A. §§ 65-34, 161 through 174 of the Kansas Voluntary Cleanup and Property Redevelopment Act. Region VII and KDHE agree to exclude from this MOA the following categories of VCPRP sites:
 - 1. Sites that are listed on, or are proposed for listing, on the National Priorities List (NPL);

2. Sites where a site investigation has been completed by Region VII or KDHE pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. §§ 9601, et seq., (CERCLA) and it has been determined by Region VII that the site should be scored using the Hazard Ranking System Package for potential listing on the National Priorities List (NPL).
 3. Sites with facilities that are RCRA-permitted facilities or facilities which have had, have, or should have interim status under the Resource Conservation and Recovery Act, 42 U.S.C. § 6901, et seq. (RCRA); and
 4. Sites which are subject to existing state or federal orders or agreements for cleanup, or sites that warrant enforcement action by Region VII or KDHE pursuant to RCRA or CERCLA or pursuant to Kansas laws.
- B. SCP sites included under this MOA must meet the eligibility requirements of the Kansas State Cooperative Program as implemented by KDHE pursuant to K.S.A. §§ 65- 3452 through 3455. Region VII and KDHE agree to exclude from this MOA the following categories of SCP sites:
1. All SCP sites not listed in Attachment A to this MOA;
 2. Sites that are listed on, or are proposed for listing, on the NPL, and sites where Region VII has submitted a HRS ranking package to HQ; unless such sites are listed on Attachment A to this MOA;
 3. Sites with facilities that are permitted facilities or facilities which have had, have, or should have interim status under the Resource Conservation and Recovery Act, 42 U.S.C. § 6901, et seq. (RCRA); and
 4. Sites which are subject to existing federal orders or agreements for cleanup, or sites that warrant enforcement action by Region VII or KDHE pursuant to RCRA or CERCLA or pursuant to Kansas laws.

Region VII and KDHE may annually, or at such other times as needed, update the Attachment A list by mutual, written agreement. Updates may add or delete SCP sites. Added sites may include, but are not limited to, VCPRP sites that after enrollment have become ineligible for the VCPRP in accordance with K.S.A. §§ 65-34, 161 through 174 or pursuant to Section III,A,2 of this MOA. Deleted Attachment A sites shall include any site that Region VII notifies KDHE has failed to meet any one or more of the conditions set forth below in Section V.B. of this MOA, or meets any one or more of the conditions set forth below in Section VIII.A. of this MOA.

IV. PROGRAM GOALS

- A. Region VII and KDHE seek to protect human health and the environment by encouraging the voluntary and/or cooperative investigation and cleanup of properties in Kansas by implementing the following strategic goals:
 - 1. Promoting appropriate investigations and cleanups by groups or individuals participating in the VCPRP or the SCP;
 - 2. Developing partnerships between Region VII, KDHE, other state and local government agencies, interest groups, citizen and community groups, and the private sector;
 - 3. Providing available environmental and regulatory information to property owners, prospective purchasers, lenders, public and private developers, citizens, municipalities, counties, and elected officials to allow for informed decision-making;
 - 4. Providing meaningful public involvement activities to ensure that the public is informed of and involved in planning for response actions related to the VCPRP and the SCP. For the VCPRP, these public involvement activities are described in K.S.A. § 65-34,168 (e), and regulations in K.A.R. 28-72-12; and for SCP sites under KDHE’s agency policy #BER RS-002, Public Information Program;
 - 5. Promoting cost-effective investigation and cleanup activities of contaminated media which protect human health and the environment and are consistent with projected future uses at the sites and applicable Federal and State law and local land use regulations; and
 - 6. Promoting long-term reliability of cleanup measures for the sites.

- B. To accomplish these goals, Region VII will support KDHE in further developing and expanding the use of the VCPRP and SCP. Region VII recognizes the VCPRP and SCP as instrumental in developing and implementing successful strategies to help promote voluntary investigation, cleanup and revitalization of properties. KDHE will continue to support efforts to promote and implement the Region VII Brownfields initiatives. KDHE and Region VII recognize each other as key partners in the ongoing success of the VCPRP and SCP.

V. IMPLEMENTATION

- A. KDHE and Region VII will work in a coordinated effort to avoid duplication of effort at sites, and to ensure that site cleanups progress in a timely fashion. KDHE will report to Region VII the status of the VCPRP and SCP as described in Section VII of this MOA.

- B. KDHE intends under this MOA that investigations and cleanups of properties are performed under either the VCPRP or the SCP. The SCP is an enforcement based cleanup program for sites that do not meet the eligibility criteria of the VCPRP. KDHE and Region VII agree that for SCP sites the following conditions apply:
 - 1. The KDHE has responsibility, with minimal Region VII involvement, to provide for a timely and CERCLA-protective cleanup and to support the public’s right of participation in the decision-making process. Region VII will work with KDHE to determine the appropriate level of oversight that Region VII should exercise at each site covered by this MOA;

 - 2. The quality of the response actions conducted for sites in the SCP will be substantially similar to a responses required under CERCLA. The KDHE should generally select a remedy which provides a level of protectiveness comparable to relevant and appropriate federal requirements for the site; and

 - 3. Any cleanups conducted by private parties under the SCP shall be conducted under enforceable agreements between those parties and KDHE pursuant to K.S.A. §§ 65-3452 through 3455.

- C. Region VII personnel have visited KDHE’s office to review and evaluate the adequacy of KDHE’s VCPRP and SCP programs based on EPA HQ’s Six Baseline Criteria for Voluntary Cleanup Programs as described in the November 14, 1996 Memorandum, Interim Approach to Regional Relations with State Voluntary Cleanup Programs. Based on such review and further discussions between Region VII and KDHE, Region VII has determined that both the VCPRP and SCP are adequate. Specifically, the VCPRP and SCP:
 - 1. Provide opportunities for meaningful community involvement;

 - 2. Ensure that voluntary response actions are protective of human health and the environment;

 - 3. Have adequate resources to ensure that voluntary response actions are conducted in an appropriate and timely manner, and that both technical assistance and streamlined procedures, where appropriate, are available from KDHE;

4. Provide mechanisms for the written approval of the response action plans and a certification or similar documentation indicating that the response actions are complete;
 5. Provide adequate oversight to ensure that voluntary response actions are conducted in a manner to assure protection of human health and the environment, as described above; and
 6. Show capability, through enforcement or other authorities, of ensuring completion of response actions if the party(ies) conducting the response action fail(s) or refuse(s) to complete the necessary response actions, including operation and maintenance or long-term monitoring activities.
- D. Region VII and KDHE will provide technical assistance to local and state government agencies in order to facilitate the revitalization of contaminated or potentially contaminated properties in Kansas.
- E. When a site has been cleaned up according to the practices and procedures of the VCPRP, KDHE may issue a written No Further Action determination pursuant to K.S.A. 65-34,169. When a site has been cleaned up according to the practices and procedures of the SCP, KDHE may reclassify the site as resolved on KDHE’s Identified Sites List.

VI. PROTECTIVENESS

KDHE, through the VCPRP or the SCP shall ensure that voluntary response actions are protective of public health, welfare, and the environment. KDHE, through the VCPRP or SCP, shall determine whether mitigation of exposure of human and ecological receptors to contaminated media is warranted, consistent with applicable Federal and State law. Cleanup standards that are protective of human health and the environment will be determined by KDHE, for sites in the VCPRP or SCP, consistent with the current and projected future uses of the site. Mitigation of exposure to contaminated media shall be conducted cost-effectively, consistent with the current and projected future uses at the site, and consistent with applicable Federal and State law. Long-term reliability shall also be a goal when selecting response actions.

VII. REPORTING

On a quarterly basis, KDHE will report to Region VII the following:

1. Number and names of sites participating in the VCPRP and SCP and the status of those sites;
2. Number and names of sites entering the VCPRP and SCP;

3. Sites having received a KDHE written no further action determination or reclassified as resolved on KDHE's Identified Sites List; and
4. Notifications of VCPRP and SCP non-completions, defaults, or terminations from the VCPRP and SCP programs, including any voluntary or responsible party who has demonstrated a pattern of uncorrected noncompliance.
5. Any substantive changes in either the VCPRP or SCP law, regulations, or policies, including but not limited to changes in cleanup standards, eligibility criteria, or public involvement.

VIII. ROLES

- A. Region VII does not anticipate taking federal removal or remedial action at sites being addressed under the VCPRP or SCP which are covered by this MOA unless:
 1. Region VII determines that the site may present an imminent and substantial endangerment to public health, welfare, or the environment; or
 2. An emergency situation arises requiring federal action; or
 3. The VCPRP or SCP applicant fails or refuses to comply with the approved cleanup plan in a timely manner, unless KDHE takes the lead and resolves the issue in a timely manner to ensure protectiveness at the site; or
 4. After cleanup has been implemented or completed, the site or facility fails to maintain engineering controls, land use designation and institutional controls as identified in KDHE's Voluntary Cleanup Plan, or no further action determination in the VCPRP, or in the KDHE State Cooperative Program Corrective Action Decision document, unless KDHE takes the lead and resolves the issue in a timely manner to ensure protectiveness at the site.
- B. When a site has been cleaned up according to the practices and procedures of the VCP and/or SCP and KDHE has issued a No Further Action Letter under the VCPRP or federal removal or reclassified the site as resolved under the SCP, Region VII does not anticipate taking federal removal or remedial action at the site except as stated in Section VIII. A.
- C. Notwithstanding any other provision of this MOA, nothing herein affects or limits Region VII's or KDHE's authority or ability to undertake any enforcement action authorized by law. Region VII and KDHE retain any and all rights or authorities that they respectively have, including, but not limited to legal, equitable, or administrative rights. This specifically includes Region VII's and KDHE's authority to conduct, direct, oversee, and/or require environmental response actions in connection with any facility or site which participates in the VCPRP or SCP.

- D. If, following the issuance of the No Further Action determination by KDHE, or reclassification to resolve a site from KDHE's Identified Sites List, conditions at a site including those previously unknown to KDHE or Region VII indicate that the response action undertaken pursuant to the VCPRP or SCP does not protect human health and the environment, Region VII and KDHE retain the right to take the response action necessary to protect public health, welfare, and the environment.
- E. This MOA does not expand or limit the rights of any party.

IX. TERM

Region VII enters into this agreement based upon a review of Kansas' currently existing policies, guides, laws and regulations. Region VII or KDHE upon notice and consultation with the other party may amend this MOA or may terminate its participation in this MOA in the event that either party determines this to be appropriate based upon changes to the Kansas program or its implementation.

This MOA is effective upon signature by the parties below, and will remain effective until KDHE or Region VII terminates the MOA by providing written notice of such termination to the other party. Termination shall be effective 30 days after receipt of such notice by the other party. The MOA may be modified by mutual consent of the parties. WHEREFORE, Region VII and KDHE agree and consent to this MOA:

For the Kansas Department of Health and the Environment:

[Signature]

Date: 2-13-01

For the Environmental Protection Agency, Region VII:

[Signature]

Date: 3/2/01

65-34,161. Title and application.

This act shall be known and may be cited as the voluntary cleanup and property redevelopment act and shall apply to real property where environmental cleanup may be needed.

65-34,162. Definitions.

As used in this act:

(a) "Contaminant" means such alteration of the physical, chemical or biological properties of any soils and waters of the state as will or is likely to create a nuisance or render such soils or waters potentially harmful, or injurious to public health, safety or welfare, or to the plant, animal or aquatic life of the state.

(b) "Department" means the department of health and environment.

(c) "Secretary" means the secretary of health and environment.

65-34,163. Rules and regulations.

The secretary may adopt rules and regulations necessary to define, administer and enforce the provisions of this act.

65-34,164. Voluntary application; application of other laws; eligible property.

(a) The program established in this act shall be voluntary and may be initiated by submission of an application to the department for properties where investigation and remediation may be necessary to protect human health or the environment based upon the current or

proposed future use or redevelopment of the property.

(b) Property which may be eligible for reimbursement from trust funds established in the Kansas storage tank act, K.S.A. 65-34,100 et seq., and amendments thereto, or the Kansas drycleaner environmental response act, K.S.A. 65-34,141 et seq., and amendments thereto, shall meet all of the requirements of the respective act.

(c) The provisions of this act shall not apply to:

(1) Property that is listed or proposed for listing on the national priorities list of superfund sites established under the comprehensive environmental response, compensation, and liability act (CERCLA), 42 U.S.C.A. 9601 et seq.;

(2) property the contaminated portion of which is the subject of:

(A) Enforcement action issued pursuant to city, county, state or federal environmental laws; or

(B) environmental orders or agreements with city, county, state or federal governmental agencies;

(3) a facility which has or should have a permit pursuant to the resource, conservation and recovery act (RCRA), 42 U.S.C.A. 6901 et seq., which contains a corrective action component;

(4) oil and gas activities regulated by the state corporation commission;

(5) property that presents an immediate and significant risk of harm to human health or the environment; or

(6) property that the department determines to be a substantial threat to public or private drinking water wells.

65-34,165. Application; fee; action on; agreement; deposit; access to property; termination of agreement; fund, use and disposition of.

(a) Each application or reapplication for participation in the voluntary program shall be accompanied by a nonrefundable application fee of \$200 to cover processing costs.

(b) The department shall review and approve or deny all applications.

(c) The department shall notify the applicant in writing, whether the application is approved or denied. If the application is denied, the notification shall state the reason for the denial.

(d) Following departmental approval of an application, a voluntary agreement in accordance with this act must be executed between the participant and the department. The department shall not commence oversight and review activities until the voluntary agreement is executed.

(e) As part of the voluntary agreement, the department shall require the applicant to post a deposit not to exceed \$5,000. The deposit shall be used to cover all direct and indirect costs of the department in administration of the program, including but is not limited to providing technical review, oversight and guidance in relation to the property covered in the application. If the costs of the department exceed the initial deposit, an additional amount agreed upon by the department and the applicant will be required prior to proceeding with any

voluntary work under the program. Timely remittance of reimbursements to the department is a condition of continuing participation. After the mutual termination of the voluntary agreement, the department shall refund any remaining balance within 60 days.

(f) During the time allocated for review of applications, assessments, other investigative activities and remedial activities under this act, the department, upon reasonable notice to the applicant, shall have access at all reasonable times to the subject real property.

(g) The applicant may unilaterally terminate the voluntary agreement prior to completion of investigative and remedial activities if the applicant leaves the site in no worse condition, from a human health and environmental perspective, than when the applicant initiated voluntary activities. The applicant must notify the department in writing of the intention to terminate the voluntary agreement. The department will cease billing for review of any submittal under the voluntary agreement upon receipt of notification. Within 90 days after receipt of notification for termination, the department shall provide a final bill for services provided. If the applicant requests termination of the voluntary agreement under this subsection, initial deposits are not refundable. In the event the department has costs in excess of the initial deposit, the applicant must remit full payment of those costs. Upon payment of all costs, the department shall notify the applicant in writing that the voluntary agreement has been terminated.

(h) The department may terminate the voluntary agreement if the applicant:

(1) Violates any terms or conditions of the voluntary agreement or fails to fulfill any obligations of the voluntary agreement; or

(2) fails to address an immediate and significant risk of harm to public health and the environment in an effective and timely manner.

The department shall notify the applicant in writing of the intention to terminate the voluntary agreement and include a summary of the costs of the department. The notification shall state the reason or reasons for the termination.

(i) There is established a fund in the state treasury the voluntary cleanup fund. Revenue from the following sources shall be deposited in the state treasury and credited to the fund:

(1) Moneys collected for application fees;

(2) moneys collected as deposits for costs associated with administration of the act, including technical review, oversight and guidance;

(3) moneys received by the secretary in the form of gifts, grants, reimbursements or appropriations from any source intended to be used for purposes of the fund; and

(4) interest attributable to the investment of moneys in the fund.

(j) Moneys in the voluntary cleanup fund shall only be expended for costs of:

(1) Review of applications;

(2) technical review, oversight, guidance and other activities necessary to carry out the provisions of this act;

(3) activities performed by the department to address immediate or emergency threats

to human health and the environment related to a property under this act; and

(4) administration and enforcement of the provisions of this act.

(k) On or before the 10th of each month following the month in which moneys are first credited to the voluntary cleanup fund, and monthly thereafter on or before the 10th of each month, the director of accounts and reports shall transfer from the state general fund to the voluntary cleanup fund interest earnings based on:

(1) The average daily balance of moneys in the voluntary cleanup fund for the preceding month; and

(2) the net earnings rate of the pooled money investment portfolio for the preceding month.

(1) All expenditures from the fund shall be made in accordance with appropriation acts upon warrants of the director of accounts and reports issued pursuant to vouchers approved by the secretary for the purposes set forth in this section.

65-34,166. Remedial action; determination whether required; plan.

(a) The department shall review reports, including any environmental assessments and investigations submitted by the applicant, and make a determination as to any required actions. If the department determines that no remedial action is necessary, the department may issue a no further action determination pursuant to K.S.A. 65-34,169.

(b) If the department determines that further investigation or remediation is required, the applicant shall submit to the

department a voluntary cleanup plan that follows the scope of work prepared by the department for voluntary investigation or remediation and includes the actions necessary to address the contamination.

65-34,167. Same; alternatives; factors considered.

Remedial alternatives shall be based on the actual risk to human health and the environment currently posed by contaminants on the property, considering the following factors:

(a) The present and proposed future uses of the property and surrounding properties;

(b) the ability of the contaminants to move in a form and manner which would result in exposure to humans and the surrounding environment at levels which exceed applicable state standards and guidelines or the results of a risk analysis if such standards and guidelines are not available; and

(c) the potential risks associated with proposed cleanup alternatives and the reliability and economic and technical feasibility of such alternatives.

65-34,168. Plan; approval or disapproval; procedures; approval void, when; verification of implementation.

(a) The department shall provide formal written notification to the applicant that a voluntary cleanup plan has been approved or disapproved within 60 days of submittal of the voluntary cleanup plan by the applicant unless the department extends the time for review to a date certain.

(b) The department shall approve a voluntary cleanup plan if the department

concludes that the plan will attain a degree of cleanup and control of contaminants that complies with all applicable statutes and rules and regulations.

(c) If a voluntary cleanup plan is not approved by the department, the department shall promptly provide the applicant with a written statement of the reasons for denial. If the department disapproves a voluntary cleanup plan based upon the applicant's failure to submit the information required, the department shall notify the applicant of the deficiencies in the information submitted.

(d) The approval of a voluntary cleanup plan by the department applies only to those contaminants and conditions identified on the property based upon the statutes and rules and regulations that exist when the application is submitted.

(e) Upon determination by the department that a voluntary cleanup plan is acceptable, the department shall publish a notice of the determination in a local newspaper of general circulation in the area affected and make the voluntary cleanup plan available to the public. The public shall have 15 days from the date of publication during which any person may submit to the department written comments regarding the voluntary cleanup plan. After 15 days have elapsed, the department may hold a public information meeting if, in the department's judgment, the comments submitted warrant such a meeting or if the applicant requests such a meeting. Upon completion of the public notification and participation process, the department shall make a determination to approve the plan in accordance with this section.

(f) Departmental approval of a voluntary cleanup plan shall be void upon:

(1) Failure of an applicant to comply with the approved voluntary cleanup plan;

(2) willful submission of false, inaccurate or misleading information by the applicant in the context of the voluntary cleanup plan; or

(3) failure to initiate the plan within 6 months after approval by the department, or failure to complete the plan within 24 months after approval by the department, unless the department grants an extension of time.

(g) An applicant desiring to implement a voluntary clean up plan after the time limits prescribed by subsection (f)(3) have expired shall submit a written petition for reapplication accompanied by written assurances from the applicant that the conditions on the subject property are substantially similar to those existing at the time of the original approval. Reapplications shall be reviewed by the department. Any reapplication that involves property upon which the condition has substantially changed since approval of the original voluntary cleanup plan shall be treated as a new application and shall be subject to all the requirements of this act.

(h) Within 45 days after the completion of the voluntary cleanup described in the approved voluntary cleanup plan, the applicant shall provide to the department assurance that the plan has been fully implemented. A verification sampling program shall be required by the department to confirm that the property has been cleaned up as described in the voluntary cleanup plan.

65-34,169. Determination no further action required; issuance; void, when.

(a) After an applicant completes the requirements of this act, the department may determine that no further remedial action is required. Within 60 days after such completion, unless the applicant and the department agree to an extension of the time for review, the department shall provide written notification that a no further action determination has been made.

(b) The department may consider in issuing this determination

(1) that contamination or a release of contamination originates from a source on adjacent property upon which the necessary action which protects human health and the environment is or will be taken by a viable and financially capable person or entity which may or may not be legally responsible for the source of contamination.

(2) The department shall provide written notification of a no further action determination.

(3) The issuance of a no further action determination by the department applies only to identified conditions on the property and is based upon applicable statutes and rules and regulations that exist as of the time of completion of the requirements.

(c) The department may determine that the no further action determination, under this section is void if:

(1) There is any evidence of fraudulent representation, false assurances, concealment or misrepresentation of the data in any document to be submitted to the department under this act;

(2) the applicant agrees to perform any action approved by the department and fails to perform such action;

(3) the applicant’s willful and wanton conduct contributes to known environmental contamination; or

(4) the applicant fails to complete the voluntary actions required in the voluntary cleanup plan.

(d) If a no further action determination is not issued by the department, the department shall promptly provide the applicant with a written statement of the reasons for denial.

65-34,170. Environmental assessments, preparer.

The department may accept only environmental assessments under this act prepared by a qualified environmental professional, as defined by rules and regulations adopted by the secretary.

65-34,171. Application of other laws; EPA involvement.

(a) Nothing in this act shall absolve any person from obligations under any other law or rule and regulation, including any requirement to obtain permits or approvals for work performed under a voluntary cleanup plan.

(b) If the federal environmental protection agency (EPA) indicates that it is investigating a property which is the subject of an approved voluntary cleanup plan, the department shall attempt to obtain

agreement with the EPA that the property be addressed under the appropriate state program or, in the case of property being addressed through a voluntary cleanup plan, that no further federal action be taken with respect to the property at least until the voluntary cleanup plan is completely implemented.

65-34,172. Plan; enforcement; use of information as basis of other enforcement actions.

(a) Voluntary cleanup plans are not enforceable against an applicant unless the department can demonstrate that an applicant who initiated a voluntary cleanup under an approved plan has failed to fully implement that plan. In that case, the department may require further action if such action is authorized by other state statutes administered by the department or rules and regulations of the department.

(b) Information provided by an applicant to support a voluntary cleanup plan shall not provide the department with an independent basis to seek penalties from the applicant pursuant to applicable statutes or rules and regulations. If, pursuant to other applicable statutes or rules and regulations, the department initiates an enforcement action against the applicant subsequent to the submission of a voluntary cleanup plan regarding the contamination addressed in the plan, the voluntary disclosure of the information in the plan shall be considered by the enforcing authority to mitigate penalties which could be assessed to the applicant.

65-34,173. Annual report.

The department shall publish annually in the Kansas register a summary of the number of applicants, the general categories of those applicants and the number of cleanups completed pursuant to this act.

65-34,174. Severability.

If any provision of this act or the application thereof to any person or circumstances is held invalid, the invalidity does not affect other provisions or applications of this act which can be given effect without the invalid provisions or application. To this end the provisions of this act are severable.

ARTICLE 71 VOLUNTARY CLEANUP AND PROPERTY REDEVELOPMENT PROGRAM

28-71-1. Definitions.

For the purposes of these regulations, the following definitions shall apply.

(a) "Adjacent property" means property that is impacted by contamination from an off-property source or property that is contiguous to a contaminated property.

(b) "Anthropogenic levels" means concentrations of chemicals or substances that are present in the environment due to human activity.

(c) "Class one contamination (Class I)" means that suspected or confirmed contamination is determined to exist on the eligible property, and the eligible property is not a source of contamination or is located adjacent to a property with a known source of contamination.

(d) "Class two contamination (Class II)" means that suspected or confirmed soil contamination is determined to exist on the eligible property, there is no known or suspected soil contamination emanating off the eligible property, and there is no known or suspected groundwater contamination.

(e) "Class three contamination (Class III)" means that suspected or confirmed soil or groundwater contamination, or both, is determined to exist on the eligible property, and there is no known or suspected soil or groundwater contamination that has migrated off the eligible property.

(f) "Class four contamination (Class IV)" means that suspected or confirmed soil or groundwater contamination, or both, is

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suspected or is determined to exist on and off the eligible property.

(g) "Days" means calendar days unless otherwise specified. Documents due on the weekend or a holiday shall be submitted on the first working day after the weekend or holiday.

(h) "Enforcement action" means an administrative or judicial claim made by a governmental agency pursuant to state, federal, or common law against the property described in the application, which enforcement action is based upon the contaminants sought to be cleaned up under this program.

(i) "Environmental site assessment" means an investigation of a property, conducted by a qualified environmental professional, that identifies and defines recognized environmental conditions at the property.

(j) "Hazard index value" means the sum of more than one hazard quotient for multiple substances, multiple exposure pathways, or both.

(k) "Hazard quotient" means the ratio of a single substance exposure level over a specified time period to a reference dose

for that substance derived from a similar exposure period.

(l) "Institutional control" means a legal mechanism that limits access to or use of property, or warns of a hazard, the purpose of which is to ensure the protection of human health and the environment.

(m) "Maximum contaminant level (MCL)" means the maximum permissible level of a contaminant in water that is delivered to any user of a public water system as described in K.A.R. 28-15-13, subsections (b) and (c).

(n) "Naturally occurring levels" means ambient concentrations of chemicals or substances present in the environment that are typical of background levels near the eligible property when not affected by the identified contamination source.

(o) "Nonresidential property" means any property that does not exclusively meet the definition of residential property.

(p) "Person" means an individual, firm, corporation, association, partnership, consortium, joint venture, commercial entity, state agency, unit of local government, school district, federal agency, tribal entity, interstate body, or other legal entity.

(q) "Potable water" is as defined in K.A.R. 28-16-28b, paragraph (b)(32).

(r) "Qualified environmental professional" means an individual who demonstrates to the satisfaction of the department that the individual, through academic training, occupational experience, reputation, or other credentials, can objectively conduct one or more aspects of an environmental site assessment.

(s) "Remedial action" means those actions taken to address the effects of a release

of a contaminant, so that it does not cause a significant risk to present or future public health or welfare, or to the environment.

(t) "Remediation" means the act of implementing, operating, and maintaining a remedial action.

(u) "Residential property" means any property currently used or proposed for use as one of the following:

(1) A residence or dwelling, including a house, apartment, mobile home, nursing home, or condominium; or

(2) a public use area, including a school, educational center, day care center, playground, unrestricted outdoor recreational area, or park.

(v) "Voluntary cleanup and property redevelopment program (VCPRP)" means the implementation of the voluntary cleanup and property redevelopment act, as defined in K.S.A. 1997 Supp. 65-34,161 et seq., and amendments thereto, by the department.

(w) "Voluntary party" means an applicant whose property is determined to be eligible for the voluntary cleanup and property redevelopment program. (Authorized by K.S.A. 1997 Supp. 65-34,163; implementing K.S.A. 1997 Supp. 65-34,164 through 65-34,172; effective June 26, 1998.)

28-71-2. Applicant.

An applicant shall include a person who has title, control, or access to the property and is one of the following:

(a) A person who owns property;

(b) a person who operates a facility located on the property;

(c) a person who previously owned, operated, or otherwise controlled activities on the property;

(d) a prospective owner of property;

(e) a prospective operator of a facility located on property;

(f) a person or generator of hazardous or solid waste who by contract, agreement, or otherwise, directly or indirectly, arranged for the disposal of contaminants at the property;

(g) a person who legally controls the property; or

(h) any unit of government that acquired title or control of the property involuntarily through bankruptcy, tax delinquency, abandonment, or other circumstances. (Authorized by K.S.A. 1997 Supp. 65-34,163; implementing K.S.A. 1997 Supp. 65-34,164; effective June 26, 1998.)

28-71-3. Eligibility determination.

(a) The property described in the application shall contain an actual, threatened, or suspected release of a contaminant or be impacted or threatened by contaminants from an offproperty source.

(b) Properties that may be eligible for application to the voluntary cleanup and property redevelopment program include the following:

(1) Properties that have been assessed by the United States environmental protection agency, its contractors and agents, and the department, if the property meets the additional criteria defined in K.S.A. 1997 Supp. 65-34,161 et seq., and amendments thereto, and these regulations;

(2) contaminated properties that are currently under an existing department order or agreement, upon completion of the actions required by the department order or agreement, if the property meets the additional criteria as defined in K.S.A. 1997 Supp. 65-34,161 et seq., and amendments thereto, and the determination of completion of the actions required by the order or agreement shall be made by the department;

(3) portions of a larger property that have or require a resource conservation and recovery act (RCRA) permit, but these portions do not require a permit in accordance with RCRA, which contains a corrective action component, as determined by the department, if the property meets the additional criteria as defined in K.S.A. 1997 Supp. 65-34,161 et seq., and amendments thereto;

(4) portions of a larger property that includes oil and gas activities regulated by the state corporation commission, but the specific portion is not regulated by the state corporation commission, if the property meets the additional criteria defined in K.S.A. 1997 Supp. 65-34,161 et seq., and amendments thereto; and

(5) contaminated properties that are not statutorily excluded. (Authorized by K.S.A. 1997 Supp. 65-34,163; implementing K.S.A. 1997 Supp. 65-34,164; effective June 26, 1998.)

28-71-4. Application process.

(a) Each applicant shall submit to the department a complete application consisting of the following:

(1) An application form, provided by the department;

(2) a nonrefundable application fee of \$200.00; and

(3) all documentation that supports the application, including environmental assessments, investigation reports, or both.

(b) Determination of whether or not the property defined in the application is eligible for participation in the program shall be made by the department, pursuant to K.S.A. 1997 Supp. 65-34,161 et seq., and amendments thereto. The applicant shall be notified by the department in writing of the determination, not more than 60 days after the department receives a complete application or reapplication.

(c) In the event that the initial application is determined by the department to be incomplete, a written notice stating why the application is incomplete shall be returned to the applicant by the department. The applicant shall submit a revised application package to address the concerns of the department.

(d) In the event the department determines that the revised application package is still incomplete, written notice shall be provided by the department to the applicant, who shall submit a second application fee of \$200.00 and a revised application package. (Authorized by and implementing K.S.A. 1997 Supp. 65-34,163; implementing K.S.A. 1997 Supp. 65-34,164 and 65-34,165; effective June 26, 1998.)

28-71-5. Classification determination.

(a) An initial classification of contamination for eligible properties shall be determined by the department.

(b) For the purposes of this regulation, properties shall be placed into one of four contamination classes, as defined in K.A.R. 28-71-1.

(c) The department's classification determination shall be conveyed to the voluntary party with written notification of eligibility.

(d) The contamination classification of an eligible property shall be determined by the department based on the following criteria:

(1) The application and associated documentation that supports the voluntary party's application;

(2) review of available technical bulletins and scientific documents describing the geology and geohydrology of the property and surrounding area; and

(3) scientific information relating to the toxicity, mobility, persistence, and other characteristics of the contaminants suspected or identified at a property.

(e) For the purposes of selecting an appropriate level of work necessary to achieve the objectives as defined in K.A.R. 28-71-9, determination of which contamination classification an eligible property falls into shall be made by the department.

(f) Throughout the time the eligible property is participating in the program, the contamination classification of an eligible property may be adjusted by the department to a lower contamination classification or a higher contamination classification, depending on additional information obtained. (Authorized by K.S.A. 1997 Supp. 65- 34,163; implementing K.S.A. 1997 Supp. 65-34,165 and 65- 34,166; effective June 26, 1998.)

28-71-6. Voluntary agreement.

(a) Upon departmental approval of the application for the voluntary cleanup and property redevelopment program, the voluntary party shall enter into a voluntary agreement with the department. The voluntary agreement shall be developed by the department and submitted to the voluntary party for signature. The voluntary agreement shall set forth all of the terms and conditions for implementation of the work anticipated in the program.

(b) Oversight, management, and review activities pertaining to the property shall not be commenced by the department until the voluntary agreement is signed by both the department and the voluntary party.

(c) The voluntary agreement shall require the voluntary party to deposit with the department an initial amount, not to exceed \$5,000.

(d) The voluntary agreement shall require the voluntary party to provide the department access to the property at all reasonable times, upon reasonable notice to the voluntary party during all the activities conducted under K.S.A. 1997 Supp. 65-34,161 et seq., and amendments thereto. (Authorized by K.S.A. 1997 Supp. 65-34,163; implementing K.S.A. 1997 Supp. 65-34,165; effective June 26, 1998.)

28-71-7. Initial deposit and reimbursement.

(a) The initial deposit made by the voluntary party, based on the contamination classification of the property, shall be one of the following amounts.

(1) Class I contamination shall not exceed \$1,000, based upon actual billing by the department.

(2) Class II contamination shall be \$3,000.

(3) Class III contamination shall be \$4,000.

(4) Class IV contamination shall be \$5,000.

(b) Oversight shall be performed by the department or its consultants or contractors. This oversight shall include the following:

(1) The review of documents, studies, and test results;

(2) any necessary administrative decision making by the department;

(3) collection of split samples, laboratory analysis, and sampling supplies;

(4) travel;

(5) per diem;

(6) verification activities; and

(7) associated indirect costs.

(c) The purpose of oversight of a voluntary party's performance by the department shall be to assure that the work is consistent with, and meets the requirements of, K.S.A. 1997 Supp. 65-34,161 et seq., and amendments thereto; applicable guidance, policies and procedures; and these regulations. (Authorized by K.S.A. 1997 Supp. 65-34,163; implementing K.S.A. 1997 Supp. 65-34,165; effective June 26, 1998.)

28-71-8. Environmental assessments.

(a) Environmental assessments as defined in these regulations and prepared by a qualified environmental professional shall be accepted by the department.

(b) An environmental assessment shall include the following information:

(1) The legal description of the site and a map identifying the location, boundaries, and size of the property;

(2) the physical characteristics of the site and areas contiguous to the site, including the location of any surface water bodies and groundwater aquifers;

(3) the location of any water wells located on the property or in an area within a one-half mile radius of the property and a description of the use of the those wells;

(4) the operational history of the property, based upon the best efforts of the applicant and the current use of areas in the vicinity of the property;

(5) the present and proposed uses of the property;

(6) information concerning the nature and extent of any contamination;

(7) information on releases of contaminants that have occurred at the site, including any environmental impact on areas in the vicinity of the property;

(8) any sampling results or other data that characterizes the soil, groundwater, or surface water on the property; and

(9) a description of the human and environmental exposures to contamination at the property, based upon the property's current use and any future use proposed by

the property owner as approved by the local zoning authority. (Authorized by K.S.A. 1997 Supp. 65-34,163; implementing K.S.A. 1997 Supp. 65-34,165, 65-34,166, and 65-34,170; effective June 26, 1998.)

28-71-9. Voluntary cleanup work plans and reports.

(a) Upon signature of the voluntary agreement by the voluntary party and the department, each environmental investigation report, assessment report, or both, submitted by the voluntary party shall be reviewed by the department. Determination of whether or not the investigation, assessment, or both, meet all the following objectives shall be made by the department.

(1) Sources for contaminants have been adequately identified and investigated.

(2) The vertical and horizontal extent of contaminants has been determined.

(3) Human health and environmental receptors have been identified.

(4) Potential risks and impacts to receptors have been evaluated.

(5) Quality assurance and quality control have been maintained.

(b) Based on the reports submitted by the voluntary party, a determination as to any required actions shall be made by the department.

(c) Determination that further investigation is necessary to meet the objectives as defined in K.A.R. 28-71-9, subsection (a) may be made by the department. If this determination is made, the voluntary party shall submit to the department for review and approval a work plan for investigation.

The work plan shall be based on a scope of work provided by the department. The work plan shall be reviewed by the department, and written comments for revisions or approval shall be provided by the department. After approval of the work plan by the department, the following actions shall occur.

(1) The voluntary party shall implement the department-approved work plan for investigation.

(2) The voluntary party shall document and submit the results of the investigation in a report, and the report shall be submitted to the department for review.

(3) The report shall be reviewed by the department, and written comments for revision or approval shall be provided by the department.

(4) A determination as to any further required actions based on the results of the approved investigation report shall be made by the department.

(d) If it is determined that remediation is necessary to address, mitigate, or both, the risks posed by the property, the voluntary party shall submit to the department for review and approval a proposal for remediation. The proposal for remediation shall be based on a scope of work provided by the department. The proposal for remediation shall meet the following objectives:

(1) Be protective of human health and the environment for documented present and future land uses;

(2) meet applicable state standards and guidelines or the results of a risk analysis approved by the department;

(3) evaluate remedial alternatives that are proven reliable and are economically and technically feasible by completing the following activities:

(A) Comparing a minimum of two alternatives, not including the "no action" alternative;

(B) documenting the ability of each remedial alternative to attain a degree of cleanup and control of contaminants established by the department; and

(4) provide a description and evaluation of the voluntary party's proposed remedial alternative.

(e) The proposal for remediation shall be reviewed by the department, and written comments for either revision or approval shall be provided by the department within 45 days of submittal, unless the department extends the time for review to a date certain.

(f) If the department approves the proposal for remediation, then a cleanup plan shall be submitted by the applicant. The cleanup plan shall include the following:

(1) A description of all tasks necessary to implement the preferred remedial alternative;

(2) preliminary or final design plans and specifications of the preferred remedial alternative;

(3) a description of all necessary easements and permits required for implementation of the cleanup;

(4) an implementation schedule;

(5) a plan to monitor the effectiveness of the cleanup during implementation; and

(6) a verification plan to document that cleanup objectives have been achieved.

(g) The cleanup plan shall be reviewed by the department, and written comments for either revision or acceptance shall be provided by the department within 30 days of submittal, unless the department extends the time for review to a date certain. If the department accepts the cleanup plan, a notice of the department’s determination shall be published by the department, in accordance with K.A.R. 28-71-12.

(h) The cleanup plan shall be approved by the department if the plan is publicly accepted and if the plan attains a degree of cleanup and control of contaminants that are protective of human health and the environment.

(i) If the cleanup plan is not approved by the department, the voluntary party shall be provided with the reasons for denial, in writing, by the department.

(j) Upon receipt of written assurance that the cleanup plan has been completed, a verification sampling program, approved by the department, shall be conducted by the department and the voluntary party, to confirm that the property has been addressed as described in the cleanup plan. Conducting verification activities, allowing the voluntary party to conduct these activities, or requesting that both the department and voluntary party collectively conduct these activities may be selected by the department. (Authorized by K.S.A. 1997 Supp. 65-34,163; implementing K.S.A. 1997 Supp. 65-34,166, 65-34,167, and 65-34,168; effective June 26, 1998.)

28-71-10. “No further action” determinations.

(a) For the purposes of this regulation, the term “no further action” determination means that the department has determined, pursuant to K.S.A. 1997 Supp. 65-34,161 et seq., and amendments thereto, that no further action is necessary at the property.

(b) The “no further action” determination by the department shall be made on properties where either of the following applies.

(1) Contamination was detected during the environmental assessment, department-approved investigation, or both, but contamination levels present no significant risk to human health and the environment, and those levels are less than applicable federal or state standards.

(2) The property has been remediated, as approved by the department, in a cleanup plan and confirmed with verification sampling as defined in K.A.R. 28-71-9.

(c) “No further action” determinations shall contain the appropriate disclaimers and limitations for the specific circumstances at the property.

(d) A “no further action” determination may be issued by the department with the following conditional terms:

(1) To allow for long-term monitoring of contamination; or

(2) to provide for further action in the event that department-approved cleanup levels are exceeded at property boundaries; or

(3) both paragraphs (d)(1) and (d)(2).

(e) A “no further action” determination may be issued by the department to properties when no contamination is indicated, based on a department-approved application, environmental assessment, or investigation reports submitted by the voluntary party. The environmental assessment or investigation shall document that the past and current use of the property has not contributed to contamination of soils, surface water or groundwater.

(f) A “no further action” determination may be issued by the department to contaminated, adjacent properties if the property that is the source of the contamination has applied and been accepted into the voluntary cleanup and property redevelopment program or if the property is being addressed by the department or the United States environmental protection agency through another program. The following requirements shall be met for those properties qualifying for a “no further action” determination under this subsection.

(1) The owner or operator, or both, of the adjacent property shall submit a complete application to the department, including environmental assessments and investigations.

(2) Determination that the contamination on the subject property resulted from an off-property source shall be made by the department.

(3) The department determines that there is no on-site source of contamination, including soil contamination.

(4) The department determines that the likely source of contamination exists nearby

and its location may allow contamination to migrate onto the subject property.

(5) The owner or operator, or both, of the adjacent property documents that the past and current use of the property would not have contributed to the contamination of soils, surface water or groundwater.

(6) The owner or operator, or both, of the adjacent property agrees to fully cooperate and allow reasonable access for the investigation and cleanup of the contamination for the source property. (Authorized by K.S.A. 1997 Supp. 65-34,163; implementing K.S.A. 1997 Supp. 65-34,169; effective June 26, 1998.)

28-71-11. Remedial standards and remedial actions.

(a) All remedial alternatives performed by the voluntary party and approved by the department shall attain a degree of cleanup, control, or both, of contaminants that ensures protection of human health and the environment.

(b) All cost-effective remedial actions to restore the environment to conditions before its altered state, including innovative technologies and natural processes, shall be considered by the department if the protection of human health and the environment is maintained, the future degradation of the natural source is minimized, and the movement of contaminants is controlled.

(c) Responsibility for reviewing and approving the approach and final selection of cleanup levels shall rest with the department. The voluntary party may select any one of the following three approaches

to determine cleanup levels for the property:

(1) Department-approved methods to determine back- ground levels;

(2) department-established risk-based levels; or

(3) a site-specific, risk-based analysis conducted by the voluntary party or the department, based on department-approved formulas, exposure parameters, and department- approved land use scenarios.

(d) The selection of cleanup levels shall be based on the present and proposed future uses of the property and surrounding properties. Land use shall include two general categories: residential and nonresidential.

(e) Multiple media, exposure pathways, and contaminants shall be taken into account during the determination of cleanup levels.

(f) Existing and applicable federal or state standards shall be considered by the department during the determination of cleanup levels.

(g) Institutional controls that restrict the use of a property may be required by the department to ensure continued protection of human health and the environment.

(1) Institutional controls for the property shall not be proposed as a substitute for evaluating remedial actions that would otherwise be technically and economically practicable.

(2) Institutional controls for the property that are approved by the department shall be considered as remedial actions.

(3) Institutional controls for the property shall be described in a restrictive covenant approved by the department, executed by the property owner, and recorded with the register of deeds for the county in which the property is located. These restrictive covenants shall remain in effective and be binding on the owner’s successors and assignees until approved otherwise by the department in writing.

(h) Soil cleanup levels and the depths to which the cleanup levels shall apply shall be based on human exposure, the present and proposed uses of the property, the depth of the contamination, and the potential impact to groundwater, surface water, or both, and any other risks posed by the soil contamination to human health and environment. One of the following approaches to soil cleanup shall be selected by the voluntary party and ap- proved by the department.

(1) In the event that naturally occurring levels of an individual contaminant in the soil exceed the cancer risk level of 1×10^{-6} , one in 1,000,000, or a hazard index value of 1.0, then the background level may be the cleanup level.

(2) In the event that anthropogenic levels of a contaminant in soil exceed the cancer risk level of 1×10^{-6} , one in 1,000,000, or a hazard index value of 1.0, then a 1×10^{-5} , one in 100,000 cancer risk level, or a level corresponding to a hazard index value equal to 1.0 may be used as the cleanup levels.

(3) A property-specific risk analysis performed by the voluntary party in accordance with the department’s scope of work shall be used to determine a chemical-specific cleanup level of less than

the cancer risk level of 1×10^{-4} , one in 10,000, or a hazard index value equal to 1.0.

(i) Property-specific cleanup levels shall be determined by the department for contaminants for which there is insufficient toxicological evidence to support a regulatory standard for risk-based cleanup levels or for nontoxic contaminants for which cleanup is required as a result of other undesirable characteristics of those contaminants. These levels shall be based on the following:

(1) The ability of the impacted soil to support vegetation representative of unimpacted properties in the vicinity of the eligible property; and

(2) the potential of the contaminant to impact and degrade groundwater, surface water, or both, through infiltration or runoff.

(j) When there are multiple contaminants in the soil, the cleanup level of each contaminant shall not allow the cumulative risks posed by the contaminants to exceed a cancer risk level of 1×10^{-4} , one in 10,000, or a hazard index value of 1.0.

(k) The department shall approve soil cleanup levels to insure that migration of contaminants in the soil shall not cause the cleanup levels established for groundwater, surface water, or both, to be exceeded.

(l) Groundwater cleanup levels shall be based on the most beneficial use of the groundwater considering present and proposed future uses. The most beneficial use of the groundwater is for a potable water source, unless demonstrated otherwise by the voluntary party and approved by the department. The most beneficial use of the groundwater shall be determined by the department based on available existing

documentation, as well as documentation provided by the voluntary party.

(m) Groundwater potentially or actually used as a potable water source shall require maximum protection in determining cleanup levels.

(n) The department shall approve cleanup levels that prevent additional degradation of the groundwater caused by contaminated migration and that encourage remedial actions to restore contaminated groundwater to the groundwater's most beneficial use.

(o) One or a combination of the following approaches to groundwater cleanup shall be selected by the voluntary party and approved by the department.

(1) In the event that natural occurring levels of an individual contaminant in groundwater exceed the cancer risk level of 1×10^{-6} , one in 1,000,000, or a hazard index value of 1.0, then the background level may be the cleanup level.

(2) In the event that anthropogenic levels of an individual contaminant in groundwater exceed the cancer risk level of 1×10^{-6} , one in 1,000,000, or a hazard index value of 1.0, then the maximum contaminant levels (MCLs) established by the federal government or a cancer risk level of 1×10^{-5} , one in 100,000, or a level corresponding to a hazard index value equal to 1.0 shall be the cleanup level.

(3) In the event that the chemical-specific maximum contaminant levels (MCLs) are not applicable, a property-specific risk analysis performed by the voluntary party in accordance with the department's scope of work shall be used to determine a chemical-specific cleanup level of less than

the cancer risk level of 1×10^{-4} , one in 10,000, or a hazard index value equal to 1.0.

(p) When the need for cleanup of a contaminant may be predicated on characteristics of that contaminant other than toxicity, including the contribution of an undesirable taste or odor, or both, the site-specific cleanup level as determined by the department or secondary MCLs shall be used as cleanup levels for contaminants for which insufficient toxicological evidence has been gathered to support a regulatory standard for risk-based cleanup levels or nontoxic contaminants. These levels shall be based on the aesthetic quality and usability of the groundwater, surface water, or both, for the present and proposed future use.

(q) When there are multiple contaminants in the groundwater, the cleanup level of each contaminant shall be such that the cumulative risks posed by the contaminants shall not exceed a cancer risk level of 1×10^{-4} , one in 10,000, or a hazard index value of 1.0.

(r) Surface water cleanup levels shall meet the Kansas surface water quality standards, as defined in K.A.R. 28-16-28b, et seq. (Authorized by K.S.A. 1997 Supp. 65- 34,163; implementing K.S.A. 1997 Supp. 65-34,167 and 65- 34,168; effective June 26, 1998.)

28-71-12. Public notification and participation.

(a) When a cleanup plan has been accepted by the department, and after consultation with the applicant, a notice of the department’s acceptance shall be published by the department in a local newspaper of general circulation in the area affected. Notice shall be provided by one or more of the following methods:

- (1) Display advertisement;
 - (2) legal notice; or
 - (3) published notice with direct notice to any other appropriate entities, including appropriate units of local government.
- (b) The cleanup plan shall be made available by the department to the public upon request.
- (c) All public notices shall indicate the public comment period for the cleanup plan. The comment period shall extend no fewer than 15 days from the date of posting the notice.
- (d) The public shall have the opportunity during the public comment period to submit to the department written comments regarding the cleanup plan. Written response shall be made by the department to those written comments from the public that directly concern the cleanup plan.
- (e) Following the 15-day public comment period, a public information meeting may be held by the department if, in the department’s judgment, the public comments on the voluntary cleanup plan submitted warrant a meeting or the voluntary party requests a meeting.
- (f) The public information meeting shall provide the public with information about relevant activities at the property associated with the voluntary cleanup and property redevelopment program. Public information meetings shall be attended by a member of the department and the voluntary party or designated representative, or both.
- (g) A notice to the city, the county, or both, of the public information meeting shall be provided by the department.

(h) Upon completion of the public notification and participation process, a determination to approve or disapprove the cleanup plan shall be made by the department. (Authorized by K.S.A. 1997 Supp. 65-34,163; implementing K.S.A. 1997 Supp. 65-34,168; effective June 26, 1998.)