

US EPA ARCHIVE DOCUMENT

1. **PROJECT TITLE:** The Environmental Results Program (ERP) Pilot for Car and Truck Repair Facilities, Class V Waste Disposal Wells – Illinois Environmental Protection Agency Project

2. **PROJECT CONTACT INFORMATION:**

Project Contact: Norma Van Valkenburg
Phone: 217.524.5810
Fax: 217.785.8346
Email: norma.van_valkenburg@epa.state.il.us

3. **PROJECT PERIOD - June 15, 2006 – August 31, 2008**

4. **BACKGROUND**

On December 7, 1999, the U.S. EPA promulgated a "new" Class V rule. The Rule prioritized, based upon environmental risk, the different categories of Class V wells. The top priority was given to motor vehicle waste disposal wells and large capacity cesspools. The inventory for these wells was to have been collected prior to the "new rule" promulgation (although this was not the case in many states, including Illinois). In all states, once the rules were adopted, no new large capacity cesspools were allowed to be constructed, and all existing large capacity cesspools were to be closed by April 5, 2005.

The implementing rules were adopted by Illinois on December 7, 2000. In Illinois, the Source Water Assessments were undertaken to identify, as potential sources of contamination, any motor vehicle waste disposal wells and large capacity cesspools, within source water areas. These assessments are to be completed by January 1, 2007.

By January 1, 2007, the Class V rule requires that all identified motor vehicle wells are to be either closed or permitted. The development and implementation of the Illinois' Underground Injection Control (UIC) Class V Well program has suffered for a severe lack of resources. Therefore, the Illinois Class V program has made progress commensurate with available the funding, especially in relation to identification of inventory and subsequent closure of those wells.

This pilot project provides a mechanism to explore the use of the Environmental Results Program (ERP) model for implementing the requirements of the Class V rule. The project seeks to measurably improve Illinois' inventory of automotive and truck repair facilities subject to the rule, and improve compliance at the subject facilities with the floor drain aspects of the UIC program. Enhanced outreach to the sector would focus on the use of a sector-specific regulatory and best management practices (BMPs) workbook to achieve compliance and adopt select pollution prevention practices. The USEPA

compliance guide for the motor vehicle waste disposal well rule will be used as the basis of our document, revised for Illinois use.

The Illinois UIC program is an established program seeking improved sector-wide compliance through development of a sector-specific ERP model. The ERP model can achieve this goal through a combination of enhanced technical assistance, outreach, random site surveys that use statistical approaches to measure performance changes, and a voluntary self-certification program.

Project Overview

An Environmental Results Program (ERP) is a common sense approach to achieving enhanced environmental protection. The Illinois EPA proposes to use the ERP approach to assist automotive and truck repair facility owners and operators in understanding and complying with the Class V rule, and going beyond compliance to adopt select pollution prevention practices resulting in increased protection of public health and public and worker safety.

The ERP pilot project will target this sector in two Illinois counties, Madison and Grundy, where Source Water Assessments have been completed and indicate a susceptibility to contamination of source water. The ERP approach provides facility owners and operators the information needed to recognize the compliance issues that apply to them and improve their performance, while also improving environmental performance accountability for the public.

Illinois EPA will work with the affected community water supplies to ensure their involvement in the project, specifically the notification of the public. The partnership with the community water supplies will enhance public notification, allowing the notification to occur via the monthly water bills. Illinois EPA will work with the community water supplies to develop the most appropriate form of notification.

This proposed UIC ERP will include the following components:

1. Workbook/factsheet including:
 - a. Best Management Practices (BMPs)
 - b. Review of compliance requirements
 - c. Assistance with completing the self-certification
2. Self-certification form to determine whether facilities have wells and the compliance status of the wells
3. Universe Identification and Self-certification:
 - a. Initial universe identification in targeted counties will be developed using various government and private business databases; a database of the facilities will be developed
 - b. IL EPA will mail self-certification packets (consisting of certification form and instructions) to all automotive and truck repair

facilities within the pilot region that are in the improved automotive and truck repair database maintained by Illinois EPA. The self-certification packets will help these automotive and truck repair facilities identify whether or not they have a Class V well. Facilities will be instructed to certify whether they are car/truck repair facilities and whether they have Class V wells, and facilities will be informed that they may be subject to enforcement if they falsify a form. Facilities will be instructed to submit completed certification by mail. (The mailing to facilities will make clear that well owners are required to respond to the mailing (i.e., submit a certification) and to have closed or permitted their wells by January 2, 2007. The language in the mailing will also strongly urge facilities without wells to provide an accurate response to the mailing (i.e., submit a non-applicability form). Detailed certification materials that help UIC facilities come into compliance will be available via the Illinois EPA Web site or mailed upon request. Mailing such compliance assistance materials to all facilities in the universe is not considered a good strategy, since perhaps only 20% of automotive and truck repair facilities have Class V wells.

4. Return-to-Compliance form
 - a. Used to address compliance problems identified in the self-certification process that cannot be corrected at that time and facility cannot certify compliance. It is expected that most, if not all, facilities will submit some kind of Return-to-Compliance plan -- it may consist initially of a notice of closure or request for permitting. This particular detail has not been decided upon.
 - b. Establishes a return-to-compliance schedule and deadline for compliance that is signed by the facility owner. Illinois EPA will review schedules to make certain that timeframes and actions are realistic and appropriate; Illinois EPA will request changes to schedules and deadlines, when necessary. Typically, ERPs allow the facility to propose a deadline; much can be learned about a facility by allowing them to determine their return-to-compliance schedule and deadline for compliance.
5. Workshops, if deemed necessary
 - a. Provide technical and compliance assistance to facility owners and operators, as necessary.
 - b. Provide training on the requirements of the ERP process, as necessary.
6. Site surveys
 - a. Random site surveys will be conducted by pollution prevention staff across the original universe of facilities, once the certification phase is complete. The purpose of the random site surveys will be to assess the veracity of certifications by a sample of facilities with wells and without, and to investigate the compliance status of a sample of nonresponders. More detail

about the sampling approach for the surveys is provided in the project QAPP.

Project Workplan

The project will begin immediately after the U.S. Environmental Protection Agency approves the workplan and initial QAPP. A contractor will be selected to assist with development and implementation of the pilot project. The project will consist of four phases:

Phase 1: During this phase, Illinois EPA will develop and implement the following:

- Memo to USEPA outlining the criteria/approach for the identification of the universe
- Car and truck repair facility universe identification
- Inspector Checklists and Environmental Business Practice Indicators
- Self-certification forms for all applicable facilities
- Outreach materials, which will incorporate best management practices and include compliance assistance workbooks
- A data management system designed for tracking and analyzing data of facilities in the pilot project.
- Partnership development with Community Water Supplies
- Outreach to affected public

Note:

- Baseline surveys will not be conducted during this pilot project, because such surveys are deemed neither efficient nor necessary to the project. The simplicity of determining applicability of targeted facilities for this pilot will be more efficiently achieved through database gathering and phone calling. Further, baseline surveys would be tremendously inefficient, given that surveyors might find an 80% dropout rate from the universe (i.e., if only 20% of the facilities have applicable wells.) This approach will also allow Illinois EPA to use more resources on post-random surveys to confirm the accuracy of certification data and overall performance of the universe. Dividing the limited number of surveys available between baseline and self-certification would limit the robustness of inferences almost to the extent to make the measurement system untenable. Finally, the lack of a baseline will not inhibit Illinois EPA from judging environmental outputs/outcomes, because any wells closed by this project would not have been closed before this project, by definition.

Phase 2: This phase of the project will involve outreach efforts and self-certification related activities, including:

- Distributing voluntary certification materials to the targeted facilities to assist in the process of closing or permitting Class V wells.
- Distributing compliance workbooks containing BMPs and UIC compliance

- requirements.
- Conducting workshops in the targeted counties, as necessary. Any workshops conducted would provide direct outreach and training, and on-site technical and compliance assistance would be offered as resources allow. The workshops would also provide a forum to discuss the voluntary self-certification and provide guidance for its completion.
 - Targeted follow-up by Illinois EPA, making phone calls to non responders to boost the response rate, and potentially contacting responders if the certification data they provide requires follow-up (e.g., the identified Return-to-Compliance timeframe is too long.)

Phase 3: This phase of the project will begin after self-certification data has been collected. Phase 3 efforts will include:

- Post certification random site surveys to begin approximately two months after the self-certification deadline. Illinois EPA's Office of Pollution Prevention will conduct the post random site surveys. These surveys will help verify self-certification data, return to compliance data, evaluate performance improvement, and allow Illinois EPA to calculate environmental outcome measures as a result of ERP.
- Statistical methodology, which includes procedures for drawing inferences based on random follow-up site surveys, assessing environmental performance, calculating environmental outcome measures based on the number of wells closed or permitted (if technically feasible, which will be addressed in the QAPP), and determining overall accuracy and reliability of data
- An amended QAPP to be submitted to US EPA

Phase 4: The last phase of the project will involve the contractor assisting IL EPA with the analysis of the data and the development of a report documenting the environmental results of the pilot project.

Project Schedule

See attached Gantt chart/project schedule. Please note that the Gantt chart anticipates an approval of a grant extension request, including an extension for the use of the grant money, resulting in a project end date of August 31, 2008 and a final report delivery date of November 30, 2008.

ERP Development and Implementation

The Illinois EPA will rely to a large extent on a qualified ERP Contractor (to be determined) to assist in the development of the ERP experimental design, outreach initiatives, the statistical methodology, and necessary QAPP revisions. The ERP will be developed to maximize the likelihood that measurable environmental results will accrue from the pilot project. The ERP will also be developed in a manner that allows for the

transfer of the project design to other states.

Implementation of the ERP will follow the experimental model developed by the project and be governed by the data collection and analysis procedures of the project QAPP. The QAPP will be amended as necessary to ensure data quality objectives are met and measurable environmental results are documented.

The Contractor is expected to assist in the implementation of the ERP as outlined below:

1. Assist with project design
2. Assist with developing the universe of facilities
3. Develop statistical methodology and data collection instruments (i.e., survey forms and certification forms)
4. Assist IEPA in the development of databases (if necessary)
5. Assist IEPA staff in development of outreach materials
6. Assist IEPA staff in analysis of project data and presentation of results

Performance Measurement

This project focuses on priority environmental issues by targeting an industry sector that is present statewide with significant potential for environmental releases and emissions. The project is intended to improve compliance within the sector with the Safe Drinking Water Act (SDWA) UIC requirements.

This project would promote sector-specific Best Management Practices (BMPs) as well as compliance guidance materials. The purpose of the BMPs would be to encourage facilities to go beyond compliance to reduce waste, pollution, and emissions through the use of better operation and maintenance practices as well as pollution prevention practices.

This project will build on lessons learned from the last decade of searching for ways to measure prevention efforts by using a mechanism (ERP) that specifically measures results. The project is likely to produce reductions in discharges of potentially hazardous waste into the environment. While one of the main goals is to reduce discharges from UIC Class V wells at automotive and truck repair facilities, the lag time between occurrence and detection may prevent quantification of these goals.

This project establishes goals for innovation, and indicators to measure progress toward those goals, by using the ERP model for the project's structure. The project is designed to demonstrate accountability for environmental results within the sector by measuring progress towards the key project indicators. Specific goals for the project would include both environmental result goals as well as compliance goals. The environmental result goals would be derived from the key indicators of the project and would likely include measures of UIC releases. The logic model for this project is attached.

The measures to evaluate the project will include:

- Facility response rate (Goal: 50% of targeted facilities with wells submit self-certification)
- the identification and closure or permitting of Class V wells in the pilot region (Goal: Identification of 50% of the wells through facility self-identification, and closure or permitting of all identified wells)
- Population at reduced risk because of well closure (Goal: 50% of population served) (See attached draft Illinois Class V Automotive Well Program: Proposed Plan for Measuring Environmental Results prepared by The Cadmus Group, Inc.) (Please note that the approach is expected to be refined as part of the statistical methodology and QAPP tasks.)

The following are draft performance measures for the project; these measures will be finalized with the support of a contractor:

- Number and percentage of shops with active floor drains, self-identified
 - Expressed as percentage of all targeted shops and as percentage of all shops with floor drains
- Number and percentage of shops with active floor drains, not self-identified (i.e., identified by survey personnel)
 - Expressed as percentage of all targeted shops and as percentage of all shops with floor drains
- Number and percentage of newly inventoried floor drains properly sealed/closed or permitted
 - Broken out by self-identified and non-self-identified wells
 - Expressed as percentage of all shops with floor drains
- Number and percentage of shops that conduct vehicle maintenance and repair in areas (bays) with unsealed floor drains
 - Broken out by self-identified and non-self-identified wells
 - Expressed as percentage of all shops with floor drains
- Number and percentage of people whose drinking water is better protected as a result of actual/anticipated well closures (particularly of shops that conduct vehicle maintenance and repair in areas with unsealed floor drains)
 - Broken out by self-identified wells and non-self-identified wells
 - Expressed as percentage of total population whose drinking water might be influenced by well pollution from the two counties
 - Better protection defined as follows: Illinois knows the size of the population served by each public water system and the geographic extent of its wellhead protection area. When facilities with motor vehicle waste disposal wells are identified during the program, the State will be able to determine which wells fall into each wellhead protection area.

Data Quality Assessment, Validation and Usability

Data quality will vary. Both primary and secondary data will be validated using

protocols to be developed in accordance with the project QAPP, as revised. Cross-checks will be used wherever possible. Data will be analyzed to ensure that unusable data is identified and removed from consideration under the project. Further descriptions of assessment, validation, and usability can be found in the project QAPP.

Data Analysis

All data analysis will be governed by the project-specific QAPP.

Measurable Environmental Improvement

This project is designed to improve environmental results by the intended outcomes of:

- reducing the threat of releases of petroleum, hazardous wastes, and hazardous materials to groundwater (a significant source of drinking water in Illinois) and soils through enhanced compliance with UIC
- Sector-specific BMPs
- Reducing hazardous waste discharge through the use of BMPs.

The ERP model will allow for the measurement of compliance progress for the entire sector. This proposed ERP model consists of targeted sector-based outreach and education, a self-certification on a sector-specific form that would both establish the inventory of wells and lead those facilities with wells into compliance, and data analysis that would result in statistically valid compliance reports to document project performance.

Reporting

Quarterly reporting to EPA will provide the status of the pilot project and progress towards milestones on the project schedule. A final report will be prepared by Illinois EPA and submitted to U.S. EPA.

Project Budget (estimated)

See attached budget sheet.