

DOE/MT/95003--2

DEVELOPMENT OF A DATA MANAGEMENT SYSTEM FOR
ASSISTANCE IN CONDUCTING AREA OF REVIEWS (AORS) ON
CLASS II INJECTION WELLS IN OKLAHOMA

Cooperative Agreement Grant No. DE-FG22-95MT95003

Oklahoma Corporation Commission

Date of Report: October 25, 1995

Grant Date: March 14, 1995

Anticipated Completion Date: March 13, 1997

Government Award: \$64,000.00 current year

Program Manager: Michael S. Battles

Principal Investigator(s): Michael W. Schmidt

Contracting Officer's Representative (COR): David Alleman,
formerly Dr. Brent W. Smith, MSO

Reporting Period: July through September, 1995

"US/DOE PATENT CLEARING IS NOT REQUIRED BY
THE FEDERAL ASSISTANCE REPORTING CHECKLIST."

DISCLAIMER

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

RECEIVED
USDOE/PETC
95 OCT 30 PM 3:19
ACQUISITION & ASSISTANCE DIV.
ELSWAN

DISTRIBUTION OF THIS DOCUMENT IS UNLIMITED

DISCLAIMER

Portions of this document may be illegible in electronic image products. Images are produced from the best available original document.

Technical Report: Grant No. DE-FG22-95MT95003
Oklahoma Corporation Commission
October 25, 1995
Page 1

Project Objectives: Project objectives are to provide the resources and capabilities to permit the State of Oklahoma to conduct Area of Review (AOR) variance analysis on a statewide level including: 1) the analysis and identification of areas which may qualify for AOR variances; 2) the correlation of information from various databases and automation systems to conduct AORs in areas that do not qualify for variances; 3) the evaluation of the risk of pollution, during permitting and monitoring, using risk based data analysis; and 4) the ability to conduct spatial analysis of injection well data in conjunction with other geographically referenced information.

Summary of Technical Progress: The Oklahoma Corporation Commission began implementing the project based on the resources provided by the U. S. Department of Energy in March 1995. The resources provided were sufficient to purchase and install 17 personal computers or client workstations with the necessary software and associated hardware. This equipment was ordered on May 4, 1995, and received on May 24, 1995. The installation of the equipment began on July 10, 1995, and was completed on July 20, 1995. The equipment list was forwarded with the technical report dated September 18, 1995.

The division successfully converted its mainframe computer surety system to the new client server network and implemented it on September 29, 1995. The division currently lacks sufficient storage space to bring the existing oil and gas spatially referenced data systems in-house and fully integrate the systems for use in the determination of AORs or AOR variances. The second installment of the awarded grant allows for the purchase of the developmental server that will provide the minimum computer storage space to convert the remainder of the mainframe computer systems. The conversion is being accomplished using a software package that allows the COBOL programming to run in a client/server environment. This conversion allows the UIC Department's system to read the Surety system but not actually interact with the converted files. (The systems still need to be rewritten to allow successful completion of the project goals.) This ability allows for quicker verification of an operator's financial assurance mechanism. This ability has not been available prior to this conversion and will increase the agency's ability to verify financial assurance for UIC wells.

Technical Report: Grant No. DE-FG22-95MT95003
Oklahoma Corporation Commission
October 25, 1995
Page 2

Also, the division began identifying areas in Oklahoma that may potentially qualify for general variances under the developed guidelines. Dr. Don Warner, University of Missouri, Rolla, is assisting the division on this task.

In September 1995, the division met with representatives from CH2M Hill for the attainment of the Risk Based Data Management Program (RBDMS). The division discussed the some of the necessary refinements to that system for use by Oklahoma. A second meeting is scheduled for October 26, 1995 with further follow-up meetings also scheduled.

During the following quarter (October through December 1995), the division is scheduled to order additional client workstations, the development server, the development software, hire system analyst to actually start reprogramming or rewriting the systems and implement the other three converted mainframe systems. The division should receive the information from Dr. Warner as to the viability of a variance program for Oklahoma and what additional information the division may need to acquire to complete such program.

References/Publications: None

Theses or technical journal articles: None