U. S. ENVIRONMENTAL PROTECTION AGENCY, REGION 6
REVIEW REPORT FOR
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY'S
UNDERGROUND INJECTION CONTROL PROGRAM
CALENDAR YEAR 2008

I. Introduction

This report presents the United States Environmental Protection Agency's (EPA's) review of the Texas Commission on Environmental Quality's (TCEQ's or the Commission's) delegated underground injection control (UIC) program activities during calendar year 2008 (CY2008). EPA's evaluation relied heavily on data provided by TCEQ in its annual end of year (EOY) report, required under Title 40 of the Code of Federal Regulations, Part 144, Section 8(b), (40 CFR §144.8 (b)). EPA also conducted ongoing oversight and review of TCEQ's UIC program throughout the year, which included file reviews and review of reports submitted by TCEQ on Federal Form 7520, and numerous calls and visits to discuss program implementation.

Tables 1, 2 and 3, provided in this document, illustrate five-year trends for permitting, inspections and mechanical integrity testing (MIT). This information was compiled from data provided by TCEQ on its UIC activities annual report to EPA and on the Office of Management and Budget's Form 7520 (this Form covers the federal fiscal year beginning on October 1, 2007, and ending on September 30, 2008). The review report includes updated developments on some high profile issues.

II. Program Organization

Throughout CY2008, the Commission's Waste Permits Division (WPD) continued its lead role in the implementation of the federally authorized UIC program. Assisting WPD were the Field Operations Support Division (FOSD) and TCEQ's regional offices, the Environmental Law Division (ELD), the Litigation Division (LD) and the Enforcement Division (ED).

- WPD has been responsible for permitting, rulemaking, grant administration, and program authorization/revision.

- FOSD assists with compliance monitoring, the performance of routine investigations and observing mechanical integrity tests (MITs) of Class I injection wells, plus the general investigation of complaints.

- ELD provides legal assistance in permitting, compliance monitoring, rulemaking, and program revision.

- LD is responsible for providing legal assistance in matters involving enforcement and litigation.

- ED is responsible for appropriate enforcement of UIC rules and permit conditions.

In addition, TCEQ contracts out to the State Office of Administrative Hearings (SOAH) to

conduct contested case hearings (CCHs) on contested permit applications or contested enforcement actions. Final decision making authority in contested cases is retained by the TCEQ Commissioners.

Effective July 01, 2009, the Radioactive Materials Division (RMD) took over some of the delegated UIC program functions that, up to that date, had been the responsibility of the WPD.

III. Program Highlights for 2008

a). UIC Permits Team

1.- UIC Permit Applications Received/Processed in 2008

The UIC permits team received a total of 58 applications, and completed 30 permit actions for Class I wells during CY2008. These applications/actions included new UIC permit/authorization applications, renewals, amendments, minor permit modifications, permit transfers, endorsements and pre-injection unit registrations. Also during CY2008, TCEQ received 11 applications for Class III injection well permits and production area authorizations, and completed 10 applications involving Class III injection well operations. TCEQ's annual report shows that no requests were submitted for voluntary revocations, and no new applications for pre-injection unit registrations or Class IV well authorizations were received during CY2008.

TCEQ reports that its permit workload also included applications for operations such as the injection of concentrate from desalinization or the disposal of process carbon dioxide by injection. TCEQ's UIC staff acknowledges the support of the staff of the Industrial and Hazardous Waste Permits Section in handling this workload.

2.- Public Participation in UIC Permit Decisions

There were various levels of public participation in seven proposed projects involving 11 permit applications received by TCEQ during CY2008. Participation included written comments received from the general public following published notices, comments received at public meetings, and a request for and participation in one CCH scheduled by the Commission. The Executive Director provided written responses to the timely submitted public comments and to the request to conduct a CCH. TCEQ is commended for providing a detailed account of the citizen participation in its decisions throughout the year.

3.- The Application of TexCom Gulf Disposal, LLC (TGD)

Details on the background for four proposed commercial Class I non-hazardous waste wells in Montgomery County's Conroe Field were presented in EPA's EOY UIC activities review report for CY2007. Therefore, this review report only describes more recent developments in this contested case.

On April 25, 2008, SOAH sent the Commission a Proposal for Decision and Order recommending that the applications be approved after prescribing some special permit conditions.

On November 19, 2008, the TCEQ Commissioners reviewed TexCom's application, and remanded the application to SOAH with instructions that a reservoir pressure build up analysis be conducted using a permeability of 80.9 md, and assuming that the identified fault is non-transmissive in the horizontal direction. TexCom and the protesting citizens sought an abatement to allow TexCom to apply for a Class V authorization giving TexCom permission to re-perforate the existing well, and conduct a fall-off test. TexCom applied for, and obtained, a Class V authorization, re-perforated the well and conducted a fall-off test in early September, 2009. The results of the test are currently under review.

4.- The Application of Uranium Energy Corp (UEC)

Details on the background for the proposed uranium in-situ solution mining operations in Goliad County were presented in EPA's EOY UIC activities review report for CY2007. Therefore, this review report only describes more recent developments in this contested case.

TCEQ's executive director has issued a final draft permit, and TCEQ's clerk's office has issued a public notice of application and preliminary decision on the proposed project. No request for an aquifer exemption (AE) has been received at the Regional office as yet.

A hearing for the area permit was convened by SOAH's administrative law judge (ALJ) on May 14, 2009. The ALJ took jurisdiction, named parties, and set schedule for discovery and testimony. This case is now in the discovery phase. TCEQ has issued the final draft Production Area Authorization No. 1 (PAA-1) and public notice. A technical review is under way for the permit applications for the project's Class I wells.

5.- The Application of South Texas Mining Venture, LLP (STMV)

Details on the background for the proposed La Palangana project were presented in EPA's EOY UIC activities review report for CY2007. Therefore, this review report only describes more recent developments regarding this case.

TCEQ's executive director issued Area Permit UR03070 on November 26, 2008, and PAA-1 on January 5, 2009. Class I well permits WDW418 and WDW419 were issued on March 27, 2009. A request for a hearing on the applications for the waste disposal wells was initially submitted, but withdrawn later. TCEQ is encouraged to revisit the project's aquifer exemption in light of the more recent developments involving public opposition to similar projects, and provide EPA with a discussion on this matter.

6.- URI's Rosita Mine Extension Application

Details on the background for this case were presented in EPA's EOY UIC activities review report for CY2007. Therefore, this review report only describes more recent developments in this case.

TCEQ has provided EPA with excerpts of the information that may become part of the formal AE UIC program revision request package, and made public a notice on this forthcoming request. TCEQ reports that no opposing comments on the proposed revision were received.

b). Inspections, Compliance Monitoring, and Enforcement

1.- Field Operations Support Division Activities in 2008

FOSD staff conducted 38 investigations of Class I injection wells (five of these investigations were at Class I wells in Class III sites) and eight investigations of Class III sites during CY2008. The staff conducted compliance reviews and responded to injection well permit violations, for major (Class I hazardous) and non-major facilities, in a timely and appropriate manner. During CY2008, FOSD staff witnessed 63 of the 106 Class I mechanical integrity tests (MITs) conducted, and reviewed reports on all of these tests. TCEQ is encouraged to make every effort to witness 100 % of the MITs performed on Class I hazardous waste injection wells.

2.- Trend Analysis for Permitting, Inspections and MITs

Tables 1, 2 and 3 show the five year (calendar year) trends for permitting, inspections and MIT testing activities for Class I, Class III and Class V injection wells, respectively. Comments at the foot of the Tables provide clarification on some of the data shown.

The data for the Class I injection wells (Table 1) attest to TCEQ's continued efforts for monitoring of the operation of these wells. EPA acknowledges that the inventory figures shown on this Table include wells which, like those in the Malone facility, sit idle all year long. TCEQ asserts that, in general, the reported number of MITs for a given year reflects the number of active wells that can be tested. However, exceptions for delaying an annual test up to three months may have been granted following an operator's request and submittal of documented justification. Facts like this one contribute to a downward trend in the reported number of conducted MITs for a given calendar year. In addition, the decline in the reported number of MITs witnessed may reflect reductions in manpower and the relocation of staff following the Commission's internal reorganization efforts. However, TCEQ gives priority to witnessing those MITs conducted on the Class I hazardous wells.

The data for the Class III injectors (Table 2) continues to reflect the increased activity in uranium mining. In the meantime, the data for the Class V injectors (Table 3) continues to show a steady upward trend in the number of applications as a result of increasing use of Class V injection wells for ground water remediation.

As in CY2007, TCEQ reported an inventory of 32 Class IV wells, located in four facilities, for CY2008. Details on these wells are provided below.

3.- Enforcement

The TCEQ enforcement program includes monitoring self reporting data, conducting inspections (investigations), issuing verbal and written notices of violation, and formal enforcement orders which may include penalties. Information on these activities, during a four-year period, is summarized in Table 4. It can be seen that, during fiscal year 2008 (FY2008), there was a decrease of approximately 25% in the number of wells in violation (9 vs.12) compared to FY2007, and TCEQ issued a notice of violation (NOV) for every well in violation. Also, during the same period, well inspections increased by nearly 6% compared to FY2007 (94 vs. 89), and the number of Class III well sites inspected remained flat at six sites. However, there was an increase of nearly 3% in the number of MIT tests that were witnessed during FY2008 (63 vs. 61). It is important to note that the

above figures are for federal fiscal year activities and that different results may be obtained when analyzing calendar year activities.

c). Regulation of Class IV and Class V Wells

The Class IV and Class V injection well program is currently administered by TCEQ's WPD staff. TCEQ provides an annual narrative on Class IV and Class V injection well activities in accordance with a request from EPA Region 6, and the applicable regulation [40 CFR § 144.8(b)(2)(i)(A)].

1.- Class IV Wells

TCEQ reported a total of four facilities with 32 Class IV injection wells for CY2008. These wells were authorized under the exception that allows the operation of such type of injection wells for implementing ground water cleanup at RCRA sites (40 CFR 144.23(c)). There was no change in the total number of authorized Class IV wells and facilities during CY2008, and no applications were submitted for Class IV well authorizations during that period. However, TCEQ continues its efforts to identify and inventory Class IV wells possibly present at state RCRA and CERCLA sites.

2.- Class V Wells

Class V wells, with the exception of motor vehicle waste disposal wells (MVWDWs) and Large Capacity Cesspools (LCCPs), are generally authorized by rule and regulated through compliance monitoring and well inventory data management. However, under the proper circumstances, the Commission's Executive Director may require the owner or operator of a Class V injection well to obtain a permit. The minimum requirements for drilling, completion and operation of Class V wells are provided in 30 TAC, Chapter 331, Subchapters A, H and K.

TCEQ continued its practice of locating and classifying Class V injection wells for regulation and inventory purposes during CY2008, an effort that will continue with the help of the Field Operations Support and Radioactive Materials Divisions, with special emphasis on MVWDWs, LCCPs and any other Class V high risk wells. In addition, Class V wells of interest include aquifer remediation wells, aquifer recharge wells, storm water and agricultural drainage wells and closed loop and air conditioning and return flow wells among others. TCEQ's Class V injection well program continues to coordinate activities with other Commission programs such as the Leaking Petroleum Storage Tank (LPST) Program, Voluntary Cleanup Program (VCP), and the Corrective Action Program (CAP), to ensure that all Class V injection wells used for aquifer remediation are properly inventoried, completed and monitored. Monitoring of these aquifer remediation projects is site specific. During the initial injection process at a given site, chemical reactions may generate potentially harmful by-products. These monitoring operations seek to ensure that these by-products do not persist.

TCEQ's UIC program staff continues to work on the development of criteria that can be used in the evaluation and authorization of proposed Class V wells for the injection of waste streams resulting from the reverse osmosis (RO) treatment of produced ground water intended for distribution at public water supply systems (PWSSs). TCEQ perceives a statewide consensus on the need for developing drought resistant water supplies to satisfy the demands of the state's growing population. This consensus, TCEQ

says, is reflected in the increased interest in proposals for ground water desalinization and radionuclide removal projects using RO technology, which generate a waste stream that needs to be disposed of safely.

TCEQ informed EPA that one proposed method for disposal is the injection of the waste stream back into USDWs using Class V injection wells authorized by rule (ABR) with the requirement of an approval letter after the technical review. Texas rules provide that Class V wells are: (1) generally ABR and (2) require submittal of inventory information and approval by the Executive Director (ED) prior to drilling and completion, and operation. In such discussion, the Texas UIC program recommends emphasis on the ED's approval requirement in order to stress that a technical review is a necessary part of the approval process as opposed to relying on an automatic ABR. Because Class V wells inject directly into USDWs, they are likely to require more stringent monitoring requirements.

EPA recommends that TCEQ continue to evaluate applications for authorizing the injection of RO residuals into Class V wells on a case by case basis, so as to ensure that decisions are made on sound, defensible scientific grounds. In the event that these evaluations warrant authorizing injection by rule, EPA recommends that TCEQ encourage the applicants to voluntarily provide public notice and invite public comments, as was done in the case of the El Paso Water Utilities (EPWU) application, thus ensuring that the public interest is best served by not allowing endangerment of USDWs.

The Commission's UIC staff evaluated and authorized 58 new Class V well sites with approximately 1941 injectors in CY2008. Most of these wells were to be used in aquifer remediation operations using temporary injection points. The inventory of Class V injection wells in Texas now stands at approximately 31,230 wells.

3.- Update on EPWU Desalinization Plant

The city of El Paso applied for and obtained the first authorization TCEQ granted for Class V well disposal of desalinization concentrate generated by the operation of a plant to treat brackish water from the Hueco Bolson aquifer and turn it into potable water for use by the city of El Paso and Fort Bliss communities. The authorization, granted on July 17, 2005, included five Class V wells which were to be completed to Class I well standards.

The first well was drilled and completed in 2006, with two more wells being drilled and completed during 2007. Two of these wells are currently injecting the residual stream from a fully operational plant, which has a design capacity to treat 18.5 million gallons per day (MMGPD) of brackish water, with three MMGPD of residual concentrate. The TCEQ UIC activities report for CY2008 states that the plant is fully operational. EPWU submitted a request for an aquifer exemption, which is currently under review.

4.- Update on the Frio CO_2 Injection Pilot

The Bureau of Economic Geology (BEG) was given an authorization to use a Class V well for the injection of CO2 into the Frio Formation in February, 2004. The objective of this pilot project is the investigation of the CO2 storage potential of brine saturated formations, and the research of modeling and evaluation tools. TCEQ granted BEG a second authorization to inject CO2 in August, 2006 with a monitoring period extending

through December, 2007. During 2008, BEG obtained authorization from TCEQ to extend the monitoring period to evaluate the injected CO2 plume with vertical seismic profiling (VSP) technology. TCEQ reports that the well will be plugged and abandoned at the end of this extended monitoring period.

d). Program Administration

1.- Program Revisions

(i).- Class V Program Revision Application:

Details on the initial steps leading to TCEQ's adoption of the 1999 EPA promulgated regulations for Class V wells, to TCEQ's subsequent submittal to EPA of a UIC program revision package, and to the comments on the application offered by EPA Headquarters in September, 2007, were provided in the Region's EOY review report for CY2006.

On June 17, 2008, EPA Region 6 approved the delegated Class V program non-substantial revision that TCEQ had requested, effectively banning MVWDWs and LCCPs.

2.- Coordination Between the UIC and Source Water Assessment and Protection (SWAP) Programs

The 1996 amendments to the Safe Drinking Water Act (SDWA) required the states to prepare source water susceptibility assessments (SWSAs) for all public water systems (PWSs). The primary objective of these assessments is the identification of potential sources of contamination (PSOCs). Working jointly with the United States Geological Survey (USGS) between 1997 and 1999, TCEQ developed a draft approach for conducting SWSAs, which was approved by EPA in November 1999. The Texas SWAP program was then initiated and SWSAs for all Texas PWSs were completed during 2004 and will be updated every three years.

Numerous programs across the Commission, including the UIC program, are contributing their databases for integration into a large data system. The UIC data shared include location data and site specific geotechnical data on injection wells in Classes I, III, IV and V. Though TCEQ provides no time frame for completion, it asserts that when completed, this integrated data system will make data more readily available to those programs and the general public.

EPA compliments TCEQ for its coordination efforts on these two programs, and recommends that TCEQ provide information indicating how much progress toward database integration has been made during a given calendar year, and a projection on when the job may be completed.

3.- Rulemaking Activities for 2008

(i).- Legislative Activities Leading to Rulemaking

During 2007, the 80th Legislature passed Senate Bill 1604 (SB1604), the "Radioactive Licensing Bill"; House Bill 3838 (HB3838), the "Class III Bill", and House Bill 2654 (HB2654), the "Desal Bill". The passing of these bills led to the following changes in TCEQ rules:

(ii).- Updated Regulation for Uranium In-situ Solution Mining:

SB1604 amends Subchapter D of Chapter 27 of the Texas Water Code, and HB3838 amends Subchapters A, D and E of Chapter 27 of the Texas Water Code.

According to SB1604, Class III well UIC permits issued after September 1, 2007 will have a term of ten years, with opportunity for renewal. Under this same Bill, existing Class III well UIC permits must be renewed by September 12, 2012. These UIC permits will also have a duration of ten years, with opportunity for renewal. Applications for these renewals are subject to public participation notices and opportunity for CCHs.

SB1604 specifies the conditions under which TCEQ may use an independent third party expert. If the Executive Director uses the recommendations of an independent third party expert for the initial establishment of monitoring wells for a production area, the application for a Production Area Authorization (PAA) is not subject to an opportunity for a CCH. The application for the PAA is still subject to public notice and opportunities for comments from the public.

According to HB3838, TCEQ has the authority to require the registration of wells used during the development of uranium in-situ solution mining permit applications. However, these wells are not subject to the Commission's permitting notice and hearing requirements. The registration of these wells ceases if and when these wells become part of a permit, and the permit holder must maintain financial assurance for the plugging and abandonment of these wells. Location, geologic, hydrogeologic and water quality data from these wells may have to be submitted to the ground water conservation district in which they may be located. UIC staff has developed a well registration form, which has been provided to current operators and will be available on the TCEQ website.

TCEQ prepared draft rules to satisfy all requirements of SB1604 and HB3838, which contain revisions based on a general review of all rules related to uranium in-situ solution mining. These rules were then proposed on September 5, 2008 (Texas Register, 33 TexReg 7422) and response to comments was made available to the public on January 9, 2009. The rules were adopted by TCEQ on February 11, 2009.

(iii).- Rulemaking Related to the Disposal of Nonhazardous Desalinization Concentrate and Nonhazardous Drinking Water Treatment Residuals from Public Water Systems

HB2654 gives TCEQ the authority to issue a general permit for the injection of the non-hazardous residual concentrate resulting from desalinization operations, or from the treatment of drinking water, into Class I wells. This legislation removes the public's opportunity to request CCHs in connection with permit applications for these wells. In addition, HB2654 authorizes the injection of these residuals into Class II wells for enhancing oil and gas recovery without the requirement that a permit be first obtained from TCEQ.

During CY2006, TCEQ conceptualized a revision of 30 TAC, Chapter 331 rules creating a set of criteria that would be similar to the federal Class I non-hazardous well regulations, and for the implementation of a general permit, and the efforts continued into

CY2007. The amended rules, applicable to the operation of Class I non-hazardous wells used for the injection of concentrate from desalinization operations and residuals from drinking water treatment operations, were adopted without changes on July 10, 2008. The amended rules affected 30 TAC Chapters 50, 55, 305 and 331.

4.- General Permit for Disposal of Nonhazardous Desalinization Concentrate or Nonhazardous Drinking Water Treatment Residuals in a Class I Well

TCEQ's staff developed a draft Class I UIC general permit to implement the rules that were adopted on July 10, 2008. An early draft UIC general permit was published in the stakeholder web page for the project on December 8, 2008 for stakeholder review and comments. At a meeting held on January 6, 2009, TCEQ's staff invited stakeholders' comments and input on the draft general permit. The comment period closed on January 13, 2009, and the draft permit was revised as appropriate, per stakeholders' comments. A public notice of the UIC general permit and public meeting was published in the *Texas Register* on April 24, 2009 and six major Texas newspapers. The public meeting was held on June 2, 2009. A response to comments has been drafted, and after approval is received to proceed, the UIC general permit will be scheduled for consideration by the TCEQ Commissioners at an Agenda Meeting. The UIC general permit has not yet been scheduled on an Agenda Meeting.

5.- Update of Permit Processing Procedures

During 2008, the program's staff successfully satisfied the time standards for permit issuance thanks in part to the assistance provided by other members of the Industrial and Hazardous Waste Permits Section staff. The workload was dominated by applications for permit renewal, permits for new wells for backup or replacement of existing wells, and discussions of proposals for permitting new in-situ uranium mining projects.

Also during CY2008, the UIC program staff updated the Technical Review Checklist for Class I wells by:

A.- Introducing updates to reflect requirements for analytical data which are to be generated by a lab that the Texas Laboratory Accreditation Program (TLAP) has accredited under the National Environmental Laboratory Accreditation Conference (NELAC)

B.- Implementing revisions to increase the scope of the checklist to include minor modifications and endorsements in addition to new wells, renewals and amendments

C.- Adding changes to achieve consistency with the revised Class I UIC applications

6.- The Preparation of "Advisory Letters" Under the Texas Water Code (TWC) §27.033 by WPD Staff

During 2008, WPD staff provided support to staff of the Railroad Commission of Texas by reviewing UIC permit applications for Class II injection wells and by issuing the TWC §27.033 "advisory letters". The responsibility of preparing these "advisory letters" in connection with the impact of Class II well injection operations on fresh water sands was shifted from TCEQ's Surface Casing Team to the UIC program staff in 2003.

Under the revised procedure, the Surface Casing Team provides the UIC program staff a copy of its surface casing recommendation for each proposed salt water disposal well using TCEQ Form 0051. The §27.033 "advisory letters" certify that the Class II injection operations will not place injected fluids in a fresh water zone, and will not endanger the fresh water zones in the surrounding area. During CY2008, "advisory letters" letters, totaling 323, were developed in response to W-14 applications.

EPA recommends that details on review and preparation procedures, and on the number of Class II applications received and processed by TCEQ's Surface Casing Team and UIC program staff, continue to be provided in the annual report as was done in the CY2004 report (Attachment 10 in that report).

Effective September, 2009, this responsibility was transferred to the Surface Casing Team, which is now part of the IHW Permits Section. The UIC team is now part of the Radioactive Materials Division.

7.- Administration of Partnership Agreements

TCEQ's UIC staff participated in the development, negotiation and management of the FY2008 and FY2009 Performance Partnership Agreements (PPAs) and Performance Partnership Grants (PPGs).

8.- UIC Program Reports to EPA

The reporting requirements of the Program MOA were satisfied with the submittal to EPA of quarterly 7520 reports, well inventory, annual activities report and correspondence. In addition, members of the staff in several TCEQ offices were helpful when providing timely and valuable feedback to frequent informal inquiries from EPA concerning numerous UIC program issues (well inventory, injection well status, updates on pending rulemaking, permit applications, etc.).

In general, TCEQ's 2008 annual activities report provided a thorough review of the more pertinent activities of the state's UIC program. This report makes a good effort at continuing the practice of listing in the write-up the number of permit applications received, permit actions taken, MITs conducted, MITs witnessed and MIT reports reviewed. However, the figures associated with the investigations (inspections) were once again included in the body of the CY2008 report by reference only. EPA requests that the specific numbers associated with the investigations be timely identified and explicitly posted as part of the report's write up in the same way that is being done for the permitting activities. This practice would not only make the annual report a more "complete piece of staff work" while attesting to the involved team's level of awareness of the program performance, but would also avoid delays in the review of the state UIC program activities. These numbers are an integral part of the trends analyses in EPA's review report.

9.- Regulatory Reform Initiatives

The UIC program staff actively participated in initiatives to revise rules and business processes.

10.- Participation in Activities of the Ground Water Protection Council (GWPC) and Texas Ground Water Protection Committee

TCEQ's UIC program staff continued its active participation in GWPC discussions during 2008, particularly in connection with regulatory approaches to the issues of CO2 capture and injection (sequestration), the injection of desalinization operations waste streams and EPA's proposed development of a national UIC database. Also, as reported in GWPC's *Ground Water Report to the Nation,* the need for increased TCEQ funding for program readiness was discussed. The UIC staff provided responses to draft Frequently Asked Questions (FAQs) related to in-situ uranium mining, in connection with the activities of the Texas Ground Water Protection Committee.

11.- Staff Training

The UIC program staff received short courses on computer networks, the regulation of industrial solid waste, reservoir analysis, financial assurance, in-situ uranium mining technology and regulation, technical issues in CO2 injection, rulemaking, equal employment opportunity (EEO) issues, professional development, providing expert testimony and response to public information requests. EPA commends TCEQ for continuing to implement a training program for members of its staff as part of efforts towards enhancing their ability for finding Class V wells, identifying and inventorying source water protection areas, and for making the SWAP program more effective. One of the presenters was from the USGS offices in Denver, Colorado.

12.- Annual UIC Symposium

Program staff presented a UIC Educational Track conducted in conjunction with the May, 2008 TCEQ Environmental Trade Fair. The conference presented updates on state and federal regulations and UIC program implementation, discussed information on research on CO2 injection, uranium in-situ solution mining growth and regulation, and was attended by approximately 175 persons. Presenters included members of the Commission's staff, EPA Headquarters and Region 6, and members of the regulated industry and the environmental community.

13.- Quality Assurance Project Plan (QAPP)

On August 05, 2008, EPA approved the current QAPP for TCEQ's UIC program. This QAPP is to be updated each year.

e). UIC Program Changes

No new program revisions were submitted to EPA during 2008. EPA Region 6 approved the delegated UIC Class V program non-substantial revision, requested by TCEQ, on June 17, 2008, effectively banning MVWDWs and LCCPs.

TCEQ predicts that its UIC program may undergo further revisions to accommodate developments associated with the capture and injection (sequestration) of CO2 and the disposal by injection of waste streams associated with desalinization operations and drinking water treatment. TCEQ anticipates that there will be strong incentives to find faster and less expensive ways to permit, complete and operate Class I wells. Members of TCEQ staff participated in the development of CO2 injection rules and in the review of considerations for the establishment of a new well Class for this activity.

f). Well Inventory

The latest inventory figures for the end of CY2008 put the total number of injection wells at 36,724 wells in all classes, in all conditions, and scattered throughout 2,256 facilities. See Tables 1 through 3 for a detailed breakout of inventory by well class.

g). Other Program Administration Activities and Comments

The 2008 EOY UIC activities report shows TCEQ's continued quest for providing adequate opportunity for public participation in its decisions (the annual report provides a summary of Public Participation activities), and for maintaining an updated well inventory.

1.- UIC Related Citizen Complaints Database

TCEQ's Office of Compliance and Enforcement (OCE) implemented additional database development for the Consolidated Compliance and Enforcement Data System (CCEDS) and can continue to quickly provide information on filed citizen complaints to the Commission's programs, including the UIC program. There were no UIC related citizen complaints during CY2008.

h). Summary

EPA considers that TCEQ runs an acceptable UIC program, although EPA continues to have significant concerns with the processing of the TexCom permit application. TCEQ is commended for its continued efforts in maintaining a reasonable time frame for permit issuance and for providing opportunities for public participation. TCEQ is also commended for its continued assistance with requested information on all aspects of field operations and program implementation, and for providing the Region opportunities to learn about its rulemaking activities.

EPA realizes that TCEQ operates on limited resources, a fact that may reflect on the portion of the MIT tests witnessed in a given calendar year (see Table 1). However, given the importance of MIT tests in ensuring the protection of the USDWs, EPA wishes to encourage TCEQ to set witnessing of all of these tests as a goal. TCEQ, nonetheless, is commended for the increase in the number of well inspections during FY2006 through FY2008.

TCEQ is encouraged to fully assess and, where necessary, challenge the data and technical work provided by operators in their application packages, and by other agencies as well, during its careful evaluation work, so as to ensure that such technical work is based on sound and proven scientific principles and practices. A more robust analysis of the data by TCEQ staff will enhance the technical credibility of determinations by the Commission, which could in turn alleviate the surge in citizens' concerns over TCEQ's UIC program actions brought before EPA in recent years.

TREND ANALYSIS CHARTS BY WELL CLASS - Source: OMB 7520 Forms, annual inventory reports

TABLE 1
CLASS I WELLS

Calendar Year	Inventory	Permitting		Total Inspections[1]	# of MITs	# of MITs Witnessed
		Applications Received	Wells Permitted			
2004	111	43	40	113	94	67
2005	108	65	50	91	98	53
2006	109	56	74	106	100	64
2007	100	43	41	99	107	63
2008	100	58	30	93	106	63

[1] Class I injection wells may undergo more than one inspection during the reporting period, therefore, the number of reported inspections and the number of wells inspected may not match.

TABLE 2
CLASS III WELLS

Calendar Year	Inventory	Permitting		Total Inspections[2]	# of Pressure Tests[3]
		Applications Received	Issued Permits		
2004	4394	1	0	7	NR
2005	4394	2	0	4	NR
2006	5066	0	0	3	NR
2007	5498	6	5	5	NR
2008	5356	11	10	8	NR

[2] Class III inspections are often reported as the number of sites inspected rather than as the number of individual wells inspected at the site. Since TCEQ has used both formats in reporting the inspections (i.e., the number of individual wells and the number of sites inspected), the number of inspections reported can vary greatly.

[3] Not Reported (NR). The data field on the OMB Form 7520 was left blank. In addition, it should be noted there are no federal regulations requiring mechanical integrity tests (MITs) for Class III injection wells except for brine mining wells. They can be conducted but are not required. Class III brine mining wells are under the jurisdiction of the Railroad Commission of Texas.

TABLE 3
CLASS V WELLS

Calendar Year	Inventory	Permitting		Total Inspections
		Applications Received	Wells Permitted	
2004	23357	70	1307	0
2005	25704	65	2347	0
2006	27782	52	2152	0
2007	29289	65	1502	0
2008	31230	58	1941	0

TABLE 4

ENFORCEMENT ACTIVITIES

	EPA Fiscal Year											
	2005			2006			2007			2008		
	I	III	V	I	III	V	I	III	V	I	III	V
A. Violations												
1. Wells with Violations	18	1 site	0	7	3 sites	2	12	4 sites	0	9	2 sites	0
2. Operations and Maintenance	5	0	0	2	0	0	25	0	0	2	0	0
3. Mechanical Integrity	0	0	0	0	0	0	0	0	0	0	0	0
4. Unathorized Injection	4	0	0	0	0	0	0	0	0	0	0	1
5. Plugging and Abandonment	0	0	0	0	0	0	0	0	0	0	0	0
6. Monitoring and Reporting	7	0	0	6	0	0	19	0	0	8	0	0
7. Other Violations	0	0	0	0	0	0	5	10	0	0	4	0
B. Enforcement Actions												
1. Notices of Violation	18	1 site	0	7	4 sites	2	12	4 sites	0	9	2 sites	1
2. Consent Agreement	0	0	0	0	0	0	0	0	0	0	0	0
3. Administrative Order	2	0	0	2	0	2	1	0	0	3	0	1
4. Civil Referral	0	0	0	0	0	0	0	0	0	0	0	0
5. Other/Verbal Notice	0	0	0	0	0	0	0	0	0	0	0	0
C. Inspections												
1. Wells Inspected	85	2 sites	0	100	4 sites	2	89	6 sites	0	94	6 sites	2
2. Mechanical Integrity Tests Witnessed	64	0	0	58	1 well	0	61	0	0	63	0	0
3. Emergency Response Inspections	0	0	0	0	1 site	0	0	0	0	0	0	0
4. Well Constructions Witnessed	1	0	0	1	0	1	0	0	0	0	0	0
5. Pluggings Witnessed	0	0	0	0	0	0	0	0	0	0	3	0
6. Routine Periodic Inspections	41	2 sites	0	99	3 sites	2	89	6 sites	2	94	6 sites	2

*Numbers reported in this table are as reported on EPA Form 7520 for the Fiscal Year

09/15/2009