



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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OFFICE OF
WATER

MEMORANDUM

SUBJECT: Annual Compliance Review of Wells Permitted or
Authorized by Rule Under the UIC Program; Guidance #64

FROM: Michael B. Cook, Director
Office of Drinking Water

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TO: Water Division Directors
Regions I - X

Purpose

Starting in FY 1990, we would like to establish a new measure of effectiveness of the UIC programs which will help us determine what portion of the regulated universe has been specifically reviewed in any given year and found to be in compliance with the regulations. This guidance applies to all Class I, II, and III wells, and to permitted Class V wells. The guidance incorporates appropriate elements of guidance #55 and supersedes that guidance with the exception of newly implemented programs for Indian Tribes. Guidance #55 presented the previous compliance strategy which called for reviewing compliance of Class II wells on a five year cycle.

Background

With few exceptions, all UIC programs will have been in effect for at least five years by the end of FY 1989. At this time, the phase-in part of the program will be over, i.e., permits will have been issued for all existing wells requiring them, and file reviews will have been completed for all Class II wells authorized-by-rule for life. The program will be entering a more routine maintenance phase and primacy agencies (Regions, States and Indian Tribes treated as States that have primary enforcement responsibility) need to develop strategies and procedures to ensure the continued compliance of the regulated universe. The goal of these strategies should be to establish a review procedure for all wells on a regular basis. This guidance describes the elements of a complete compliance determination review which differ from Class to Class and gives suggestions on the frequency and timing of the reviews.

This guidance presumes that at some point in time during the first five years of the program, the Director has ascertained through the permitting process, or the file review process that the well is:

1. Completed into formation(s) below the base of the lowest USDW (except for Class V wells);
2. Separated from USDWs by adequate confining zones; and
3. Designed for its expected use, and subsurface geologic conditions, and for the protection of USDWs.

In addition, it is also presumed that through the use of permit conditions, field rules, or authorization-by-rule requirements; certain operating, monitoring, and reporting conditions have been imposed on all wells.

The goal of the program in this second phase is to determine to the greatest extent possible, that all wells are maintaining compliance with all requirements. The primacy agencies should develop strategies to meet this goal.

Guidance

All primacy agencies should develop comprehensive compliance review strategies. The goal of these strategies is to enable the primacy agencies to ascertain on a periodic basis that wells are in compliance. The number of wells or facilities checked for compliance, and the results of these reviews will be reported to Headquarters on a quarterly basis. This will replace the file review reporting element and is a SPMS measure for FY 1990.

I. Timing and Frequency of Compliance Reviews

Ideally, all wells in each program should be reviewed for compliance once a year. However, for primacy agencies with large well populations such frequent reviews may not be feasible for all classes of wells.

Programs should strive to review:

- ° All Class I wells on a yearly basis;
- ° All Class IID wells on a yearly basis, especially commercial operations;

- ° Class II enhanced recovery and hydrocarbon storage wells yearly on a project basis or no less than every five years on a well-by-well basis;
- ° All Class III facilities on a yearly basis.

In addition, permitted Class V wells in Direct Implementation (DI) programs should be reviewed annually. The Regions have only been issuing permits to Class V wells which they deemed to be high-risk wells and ensuring compliance of these wells with whatever permit conditions have been imposed should be a high priority. For State programs, however, we realize that some States routinely permit Class V wells which we would not consider a high priority. The Regions should negotiate with their States (and Indian Tribes if applicable) and come to an agreement on the subclasses of Class V wells which will be subject to this guidance.

II. Events Triggering A Compliance Review

To be effective, compliance reviews must be conducted in response to significant events that have a direct bearing on a well's conformance to program requirements. Five year permit reviews or major permit modifications would trigger a review, as would major non-compliance events, a change in ownership or physical modifications of the well. The compliance review should also be tied to the field inspection strategy. We would expect that some programs have a routine inspection strategy where a certain percent of the well universe is looked at on a given frequency independently of operator reporting. Alternatively other programs may review annual reports submitted by the operators and use them to prioritize their inspection workload. In either case, completion of a compliance review would indicate that both inspection and review of the reports have taken place.

III. Elements of a Compliance Review

Compliance reviews will vary somewhat based on the class and well type involved. In general, the reviewer should take into consideration all monitoring and reporting since the last review, with particular attention to MIT and well workover reports, in addition to inspection reports. Changes in ownership and the adequacy of financial responsibility demonstrations are also to be reviewed. Similarly, compliance reviews would have to be conducted on temporarily abandoned wells.

The following documents, reports, and other elements should be examined when determining the compliance status of an injection well. As explained above, certain reports or events may trigger the need to do a compliance review, while in other cases the review may be part of the routine strategy. In any case, a report that a compliance review has been completed would imply that all of the elements listed below have been examined.

A. Reports

All reports submitted during the year, or since the last compliance review should be reviewed as part of a compliance review. They include monitoring reports, reports of MIT and well workovers.

1. Routine Monitoring

a. Class I injection well owner/operator(s) are required to report quarterly on the following:

- ° Physical, chemical, and other relevant characteristics of injectate;
- ° Monthly average, maximum and minimum values for injection pressure, flow rate and volume, and annular pressure;
- ° Results from groundwater monitoring;
- ° Results of any required test performed during the quarter;
- ° Any well work-over; and
- ° Any other monitoring and reporting as specified in the permit.

b. Class II well owner/operator(s) in DI States are required to report annually on the following items listed below. State programs have similar but varying schedules.

- Recorded observations of the injection pressure, flow rate, and cumulative volume, with at least the following frequency:
 - ° Monthly- Enhanced recovery operations;
 - ° Weekly- Salt water disposal operations;

- ° Daily- Injection of liquid hydrocarbon or injection for withdrawal of stored hydrocarbons; and
 - ° Daily- Injection phase of cyclic steam operations.
- The monthly average of injection pressure, flow rate and cumulative volume is what is recorded in the annual report.
 - Major changes in the characteristics or source of the injected fluids should be reported as these changes occur.
 - Primacy State programs (and Indian Tribes if applicable) also contain reporting requirements although they may differ from those listed above.
- c. Class III injection well owner/operator(s) are required to furnish quarterly reports on:
- Analysis of injectate as required by the permit;
 - Semi-monthly measurement of injection pressure and flow rate or volume; or
 - Daily record of injected and produced fluid volumes;
 - Results of ground water monitoring as required by the permit; and
 - Results of any required tests performed during the quarter.
- d. Where Class V wells have been permitted some monitoring and reporting may be required and they can be the subject of the compliance review as determined by negotiations during strategy development.

Of particular importance when reviewing monitoring reports is to ascertain that no unapproved changes in the character of injected fluid, flow rate, pressure, or scope and type of the project have occurred.

2. Mechanical Integrity Testing Reports

a. The Mechanical Integrity Test (MIT) report should include:

- Results of testing; and
- Description of the test and the methods used.

b. In evaluating MIT results, the Director should review the results of monitoring and any other test data submitted since the previous evaluation. If the MIT is a follow-up test after a previous MIT failure and subsequent remedial action, this should be noted.

3. Workover Reports

Review of completion reports of minor workovers, and major workovers which have not been reviewed as they occurred, should be part of the compliance review. The program should also ascertain that each owner/operator complied with the advance notification requirements and take action where they did not.

B. Review and Approval of Major Well Workovers

In many cases (particularly for Class I wells) well workovers require prior notification by each owner/operator and they should be reviewed and approved by the regulatory agency as they occur. Such events may be used to trigger a complete compliance review. For Class II wells, programs may not be able to review and approve all major workovers. They should, however, be encouraged to review and approve a minimum of 25% of all major well workovers (EPA form 7520-12) at both the proposal and the execution stage to assure continued compliance. Major well workovers should be defined in light of typical practices, but at a minimum should include any removal of tubing or packer, or any change in existing cementing or construction. Any such review must include commitments to witness workovers and subsequent MIT as well as provide specific authorization to resume injection after a successful MIT.

C. Review of a Well's Ownership and Adequacy of the Financial Responsibility Demonstration

As part of the compliance review, programs should ascertain if the ownership of the wells has changed. In cases where ownership has changed, the reviewer should check whether:

- a. Proper notification of change of ownership has occurred;
- b. The financial responsibility demonstration for the new owners is adequate; and
- c. The new owner/operator has an updated plugging and abandonment plan (EPA form 7520-14).

Even where ownership of the well has not changed, the adequacy of the financial responsibility demonstration should be reviewed. The revised financial responsibility guidance for Class II wells will require annual updates of financial statement submissions as required by §144.51(h) for DI States and §145.23(f)(6) for Primacy States. Other types of financial responsibility demonstrations may need to be revised based on DOE's "Cost and Indices for Domestic Oil and Gas Field Equipment and Production Operations."

D. Compliance Reviews for Temporarily Abandoned Wells

1. For temporarily abandoned Class II wells (wells that have been abandoned for two or more years), the strategy must incorporate provisions to track the two year temporary abandonment cycle and to require non-endangerment demonstrations on this cycle.
2. All other compliance review elements for temporarily abandoned Class II wells should be the same as for active Class II wells (including financial responsibility and change of ownership requirements).
3. The owner/operator of a temporarily abandoned Class II well shall notify the Regional Administrator prior to resuming injection.

Implementation

All primacy agencies should develop strategies to achieve the goal stated by this guidance. These strategies will be discussed with the Regions during the FY 1989 Mid-Year evaluation process. Strategies for DI programs are to be submitted to UICB for review in advance of the mid-year evaluation. The Regions should encourage their States (and Indian Tribes if applicable) to put their compliance review strategies in place during FY 1989. Starting in FY 1990, these compliance reviews will be a reporting element for the UIC program, in lieu of file reviews, and a SPMS commitment.

Action Responsibility

For further information on this guidance, contact:

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