

Comprehensive UIC Program Evaluations February 21, 2019

Introduction

The mission of the EPA's Underground Injection Control (UIC) program is to prevent endangerment of underground sources of drinking water (USDWs) where injection activities are occurring. States, tribes, and territories (referred to collectively as "primacy programs" in this document) may apply for, and the EPA may grant, by rulemaking, primary enforcement responsibility ("primacy") for all or part of the UIC program. These primacy programs are then responsible for permitting or, in the case of rule-authorized wells, otherwise regulating underground injection wells so they do not endanger USDWs as required by the Safe Drinking Water Act (SDWA).

The EPA conducts UIC program oversight to help ensure that states who have been granted primacy continue to implement their programs in a manner consistent with the SDWA and their memorandums of agreement (MOAs) with EPA. EPA oversees UIC program performance within a robust framework that governs states and EPA UIC program implementation. A key resource for UIC program oversight is EPA's Guidance 30: *Interim Guidance for Overview of the Underground Injection Control Program* (Guidance 30). Guidance 30 supports the EPA UIC program in applying certain oversight framework elements in a consistent manner.

Guidance 30 identified four elements of the UIC overview system: Annual (federal) reporting, grant reporting, noncompliance reporting, and program evaluations. The UIC program has evolved since Guidance 30 was developed, and EPA, in more recent years, has conducted two types of program evaluations: (1) annual performance reviews based on negotiated work plans related to UIC grant funds; and (2) comprehensive program evaluations.

The purpose of this document is to:

- Clarify the scope of comprehensive UIC program evaluations conducted by EPA.
- Present the general steps associated with comprehensive primacy program evaluation plans.
- Identify the core program elements that EPA will examine during a comprehensive primacy program evaluation process.

The EPA undertook this effort to bring consistency to comprehensive program evaluations of authorized UIC programs across regions; to establish clear expectations for primacy programs regarding what such evaluations will entail with respect to scope and information that EPA may request that a primacy program provide; and to help EPA identify issues where clarity is needed to achieve national consistency wherever possible.

This document is based on Guidance 30 and is intended to be used by regional UIC programs to guide the comprehensive program evaluation process. In addition to any general and/or agency-specific questions, EPA regions are encouraged to share this document with primacy programs in advance, so states may be prepared for the evaluation. Comprehensive program evaluations

are conducted on a less frequent basis than the annual performance reviews, may include more than a single year of UIC program implementation information, and may be broader in scope. In determining the frequency at which a comprehensive program evaluation may occur, the EPA considers many factors. These include but are not limited to:

- A primacy program has requested that EPA perform a comprehensive review. An *external party investigation*.¹ has revealed potentially problematic implementation of a program.
- EPA becomes aware of potential concerns through the annual performance review, routine program oversight by EPA, or by other means and determines a more thorough evaluation of a state agency's implementation of their program may be warranted.
- A comprehensive review is required to monitor the implementation/development of a newly delegated program or to determine if recently approved program elements in an already delegated program are working as planned.
- Changes in primacy program authority, funding/budget status, reorganization, increases in program activity, or staff changes that could impact program implementation have occurred.

Scope of comprehensive UIC program evaluations

Comprehensive UIC program evaluations are intended to evaluate *primacy program implementation*.² to ensure that program implementation continues to meet the requirements of the SDWA, as well as the original primacy program approvals and any subsequent regulatory changes. Core primacy program elements are evaluated, as well as any recommendations from any prior evaluation report.

EPA will work collaboratively with states to recognize successes and to identify areas for improvement.

Comprehensive UIC program evaluations plans are generally considered applicable to Well Classes I, II, III, and VI, under SDWA 1422 and SDWA 1425. Given the unique nature of Class V wells, evaluation of UIC Class V program implementation would likely require a different set of steps and questions.

General steps in a comprehensive program evaluation plan

The general steps in a comprehensive program evaluation plan include:

- **Primacy program notification** – EPA notifies the primacy program that EPA will conduct a comprehensive program evaluation. Following notification, EPA:

¹ *external party investigation* – means an investigation/review of the program conducted by a party outside of the EPA UIC program. For example, GWPC, OIG, GAO, or state audits such as, legislative investigations, or legal actions.

² *primacy program implementation* – means the state/tribe/territory statutes, regulations, and associated documents approved by EPA, and how they are currently implemented. The primacy program may include changes made since the last approval.

- Works with the selected program to establish a date for the entrance conference, and a schedule for the delivery of any files, or documents requested as part of the evaluation.
- Reviews the primacy program's statutes and regulations, approved program description, MOA, and final report from most recent comprehensive program evaluation.
- Provides the primacy program with a copy of this, UIC Comprehensive Program Evaluations document with additional primacy program-specific questions or requests determined applicable by the region.
- Receives program responses to questions noted in the bullet above and identifies any additional questions or requests, including copies of documents needed for the evaluation.
- EPA may ask for advance copies of specific program files and identifies the list of files the Agency expects to review during the onsite file review process.
- **Entrance conference** – EPA and the primacy program have an entrance conference at the primacy program office. Entrance conference discussions may address:
 - Additional program review questions or requests.
 - Priorities, emerging issues, and areas of concern.
 - The types of records needed during file review.
 - Administrative program management and coordination with other programs (e.g., RCRA regarding hazardous waste disposal restrictions).
- **Schedule/milestone dates** – EPA and the primacy program establish and agree on a schedule for the comprehensive program evaluation including milestones for deliverables.
- **Document review** – EPA may request from the primacy program, documents for review in advance of the onsite visit and file review.
- **File review** – EPA will conduct the file reviews typically at the primacy program office and may continue file review at the regional EPA office following the onsite review. The primacy program will be advised in advance of the files selected for the review process.
- **Analysis of file review information** – Typically, EPA will analyze file review information to evaluate state's implementation of core primacy program elements overall.
- **Exit conference** – EPA and the state UIC program have an exit conference at the primacy program office. Exit conference discussions may address:
 - Any follow up questions raised during the onsite state file review.
 - The EPA's summary of observations.
 - Next steps for the region and state to complete the review process.
- **Draft report** – EPA prepares a draft report of results and provides the primacy program with an opportunity for review and comment prior to preparing the final report.
- **Final report** – EPA issues the final report.
- **Follow-up on action items** – EPA tracks UIC program progress toward completion of action items from the report.

Core program elements EPA examines during comprehensive UIC program evaluations

This section details the common elements of a comprehensive program evaluation. These elements are consistent with the review elements identified in Guidance #30 and have been

determined to have continued relevance to UIC programs today. EPA regions conducting the program reviews have the flexibility to add elements or additional questions or requests for a given primacy program based on circumstances or issues specific to that primacy program or region.

Below each topic area are a series of questions and example points of evaluation to help answer the questions. The questions and associated metrics are intended to guide EPA's comprehensive evaluation process (including interviews and file and records reviews). The common elements of the evaluation include:

- Permitting
- Financial assurance
- Compliance monitoring and determination
- Enforcement action and return-to-compliance
- Program coordination (examples include: coordination with RCRA program on Class I wells, aquifer remediation projects involving injection wells and, coordination among states agencies when the management of well classes are split).
- Administrative program management

Permitting evaluates the state's application review process including public involvement and permit conditions/requirements set for operation and construction of the well in the context of USDW protection. EPA's assessment is based on: (1) the technical standards; (2) conformance with construction and operation requirements of the primacy program; (3) the public participation process; and (4) exceptions to construction and operating requirements. The permitting review is guided by the following questions:

1. Are the program's technical standards applied in the permitting process?
 - a. Permitting decisions are based on geologic information in the primacy application review process as it pertains to the base of the lowest USDW, confining zones, injection zones, and requirements of the primacy program's regulations.
 - b. Permits establish a maximum injection pressure (MIP) which assures pressure in the injection zone does not fracture the confining zone.
 - c. The Area of Review is adequate for the well's operating parameters and meets the specifications of the primacy program's regulations.
 - d. Well construction: casing/cementing prevents movement of fluids into or between USDWs based on USDW and injection zone hydrologic relationship and provides adequate isolation of the USDW from the injection zone and is designed in accordance with the primacy program's regulations.
 - e. Variances to operating parameters such as maximum injection pressure or maximum injection rate are documented.
 - f. Plugging and abandonment plans ensure isolation of the injection zone and are protective of USDWs, and where applicable, meet the primacy program's regulations.

2. Do construction and operation requirements conform with primacy program's regulations?
 - a. Wells found in the Area of Review that need corrective action are addressed as contemplated in the primacy program and are protective of USDWs.
 - b. The primacy program verifies that wells meet Part I and Part II mechanical integrity requirements (consistent with 40 CFR 146.8, or primacy program regulations) prior to initial injection.
 - c. Any alterations to well construction that have been granted are documented.
 - d. Wells are plugged in accordance with permit conditions and/or primacy program standards.
3. Do permits conform to the public involvement program as described in the primacy program description, for:
 - a. Distribution of notice;
 - b. Public comment period, documentation of comments/responses, communicating final decisions; hearings as necessary, appeal rights as contemplated in the approved program; and
 - c. Does the primacy program respond to public comments, if any are received, as specified in the program description?
4. If the primacy program allows exceptions to construction and operation requirements, have these been granted in such a way as to protect USDWs?
 - a. Permit reissuance or review schedules are documented and proceed on schedule.
 - b. Permit modifications conform to the primacy program's requirements.

Financial Assurance (FA) evaluates that wells demonstrate financial assurance for closure in keeping with requirements of the primacy program and closure of abandoned wells.

1. Does the primacy program adequately explain various financial assurance mechanisms that allow an owner/operator to establish financial assurance? Are the bonding limits set by state or tribal law, or the primacy program?
2. How frequently are reviews on financial assurance conducted to ensure adequacy of funds?
 - a. When the FA is maintained by another party (e.g., bank, surety company), the primacy program ensures the permittee maintains the account and is in good standing.
 - b. There are no issues with the state or tribal government re-appropriating funds.
3. Are the current financial requirements/practices adequate to cover plugging costs should an owner/operator abandon the well?

- a. Has the primacy program encountered any instances where financial assurance was insufficient and state or tribal funds were required to be used to conduct plugging operations?
4. Does the primacy program utilize other FA methods, and if so, how do they function? Are these adequate to address the plugging operations needed, and do they meet the primacy program's FA requirements?

Compliance Monitoring and Determination evaluates the primacy program's implementation of its: (1) investigation procedures; (2) response to complaints related to potential impacts to USDWs; (3) accomplishments vs. projections; (4) review of operator reports, and other compliance-related actions or systems; (5) inspection program; and (6) MIT requirements. The compliance monitoring and determination process review is guided by the following questions:

1. Are the primacy program's investigative procedures responsive and thorough?
 - a. It has a process for gathering, storing, and retrieving information related to well compliance.
 - b. Quality assurance (QA) processes are in place to ensure that submitted well compliance information accurately represents field conditions.
 - c. The mechanism for triggering compliance investigations is effective.
 - d. The primacy program routinely monitors well activity compliance, and evaluates the techniques or tools used to monitor well activity compliance.
 - e. The primacy program's procedures are sufficient to gather facts that will be admissible as evidence in an administrative or judicial proceeding.
2. Is the primacy program responsive to citizen complaints and does the program document complaint resolution?
3. Does the primacy program have a protocol that provides for a consistent review of operator reports?
 - a. The primacy program has an established protocol that guides compliance monitoring techniques.
 - b.
 - c. The primacy program detects compliance/noncompliance.
4. Is the inspection program consistent with state program requirements?
 - a. The state inspects each well according to its approved program schedule.
 - b. Inspections evaluate compliance with program/permit requirements for MIP, annulus pressure, and other state-required operating parameters.
 - c. Noncompliance identified by inspection is addressed via compliance assistance or enforcement.
5. Are MIT compliance requirements consistent with the primacy program requirements?
 - a. The primacy program monitors each well for Part I MI.
 - b. Wells are up-to-date on MIT, in keeping with the state's MIT schedule.

- c. The primacy program witnesses MITs or reviews MIT reports.

Enforcement Actions and Return-to-Compliance evaluates: (1) timeliness; (2) effectiveness and adequacy; and (3) emergency response. Review of Enforcement Actions and Return-to-Compliance is guided by the following:

1. Is the primacy program timely with response and return-to-compliance actions?
 - a. Non-compliant well owner/operators are directed to return to compliance.
 - b. The primacy program monitors how long it takes for UIC wells to return to compliance.
 - c. The primacy program escalates enforcement response when appropriate.
 - d. Enforcement actions are initiated in a timely fashion.
2. Are primacy program actions conducted in accordance with MOAs and program regulations/policy, and are they effective and adequate in protecting USDWs?
 - a. The primacy program is appropriately characterizing violations as non-SNC or SNC.
 - b. The primacy program has established a process for selecting and implementing effective return-to-compliance tools.
 - c. The primacy program actions return the well to compliance, result in closure, or result in referral, as appropriate.
 - d. The primacy program actions assess adequate administrative penalties, seek adequate civil penalties, or seek adequate criminal fines, as appropriate.
3. Is emergency response implemented and used appropriately?
 - a. The primacy program has an established protocol for emergency actions.
 - b. The primacy program responds to emergency situations in a timely fashion.
 - c. The actions taken resolve the identified problems.
4. Is there an adequate opportunity for the public to participate in the enforcement process?
 - a. The primacy program allows intervention as of right in any civil or administrative action by any citizen with an interest that may be adversely affected; or
 - b. The primacy program investigates and provides written responses to complaints, does not oppose allowable permissive intervention, and publishes notice and settlements are consistent with MOAs.

Administrative Program Management evaluates: (1) regulation revisions; (2) staff training; (3) program accomplishments; and (4) data management. EPA will evaluate whether any changes to state statutes or regulations or other administrative program management areas necessitate a further review as to how they affect the state's ability to operate the program as approved. The Administrative management review is guided by the following questions:

1. Have there been any revisions to the statutes or regulations related to the primacy program?

- a. The primacy program identifies policy changes in response to EPA actions.
 - b. The primacy program identifies relevant regulatory program changes.
2. Does the primacy program provide training for new and existing staff?
 - a. New UIC staff are provided adequate training prior to working independently.
 - b. Existing UIC staff are encouraged and provided the opportunity to participate in up-to-date training on UIC issues.
3. Do the primacy program's annual program accomplishments meet the program projections?
4. Is the primacy program's data management plan adequate?
 - a. A quality management plan (QMP) has been developed and implemented.
 - b. The primacy program maintains and updates a well inventory system.
 - c. The primacy program tracks upcoming permit expirations, if any, along with upcoming reporting and mechanical integrity testing requirements for well owner/operators.

Resources

- *Guidance for State Submissions Under Section 1425 of the Safe Drinking Water Act – Ground Water Program Guidance # 19*
- *Interim Guidance for Overview of the Underground Injection Control (UIC) Program – Ground Water Program Guidance # 30*
- State Review Framework (SRF) Round 3 Guidance Documents
(<https://echo.epa.gov/help/state-review-framework>)