UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

19977

MEMORANDUM JUN 17 1983

SUBJECT : FY 84 Grant Guidance for the Underground Water Source Protection (or UIC) Program

FROM : Victor J. Kimm, Director
Office of Drinking Water, (WH-550)

TO : Water Division Directors
Water Supply Branch Chiefs
Regions I - X

Region and appropriate Headquarters offices (Program Development and Evaluation, General Counsel, Drinking Water and staff in the Immediate Office of Water) have reviewed and commented on the subject guidance. We have incorporated most of the comments, especially those dealing with funding eligibility. The guidance confirms the preliminary interpretations that have been given to the eligibility questions and clarify others as follows:

- States are not eligible for grant awards in FY 84 unless they have primary enforcement responsibility for the UIC program. They are not eligible for reimbursement of any program expenses incurred prior to the grant award.

- 1425 programs are eligible for funding. Programs that include all well classes except Class II are also eligible for funding.

- Programs that ban some well classes and regulate all others as described in 40 CFR §145.21 (d) (previously §123.51 (d)) are eligible for funding.

- In regard to implementation of the UIC program in non-primacy States, the ROs cannot enter into Cooperative Agreements with the State and they cannot award contracts to any State agency that has in any way participated in the program as the designated or secondary agency.

These clarifications were given to the program office by the grants attorney in OGC. Headquarters will prepare a deviation to allow the affected States to use internal carry-over funds in FY 84 until a grant is awarded.

The level of funding indicated in the second page of the guidance may be increased as the House has recommended $8,000,000 for the UIC program in FY 84, but the Senate has not yet acted. In the meantime, the State allotment shown in the attached table can be used as a basis for planning purposes.

Another development that may affect the State funding situation is that, as part of the reauthorization of the SDWA, the Office of Drinking Water will recommend a one year extension of the deadline for achieving primacy (Section 1443 (b) (2) and by extension, 40 CFR §35.460). However, it is not clear whether the law will be changed by September 30, 1983, and under the existing conditions this guidance stands as written. We will keep you informed of new developments.

Attachment

cc UIC Representatives Regions I-X
Jane Ephremides

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MEMORANDUM JUN 17 1983

SUBJECT: Interim Guidance for Overview of the Underground Injection Control (UIC) Program
Ground Water Program Guidance #30 (GWPG #30)

FROM: Victor J. Kimm, Director
office of Drinking Water (WH-550)

TO: Water Division Directors
Water Supply Branch Chiefs
Regions I - X

Purpose

This document outlines procedures and criteria for effective overview of the UIC Program. These procedures and criteria may be used by EPA Regional offices (ROs) as they oversee State programs or by EPA Headquarters for overview of Regional office programs in nonprimacy States and on Indian lands. Implementation of this guidance will provide EPA with enough information to assess the effectiveness of the UIC program and to provide the Congress and the Office of Management and Budget with quantitative and qualitative information for planning and evaluation purposes. This guidance will be expanded when warranted, and will be incorporated into the next Office of Water guidance. This guidance follows the Office of Water overview criteria and the Administrator's delegation policy documents. Region VI overview criteria was used extensively in developing this guidance.

In conducting overview activities EPA will utilize existing information and required reporting to the greatest extent possible in order to minimize disruption and additional burden on the States and the regulated community. It is important that the planning for overview be integrated into the yearly changes and development processes for the Memorandum of Agreement (MOA). Also note that this guidance references and briefly describes several reporting requirements for which separate guidance will be issued. They have been mentioned here in order to provide the "total picture" of overview activities and elements.

Background

The Safe Drinking Water Act (the Act) requires that a State provide the Environmental Protection Agency (EPA) with reports on its UIC program. The minimum requirements for an effective State UIC program are given in section 1421 of the Act. Section 1421(b)(1)(C) requires that a State program include inspection, monitoring, recordkeeping, and reporting requirements. As a follow-up to this, under "State Primary Enforcement Responsibility," section 1422(b)(1)(A)(ii) requires that the State show in its program application that it:

> ". . . will keep such records and make such reports with respect to its activities under its Underground Injection Control program as the Administrator may require by regulation."

With this statutory basis for reporting, EPA established specific requirements in the program regulations.

An optional demonstration of an effective UIC program is provided for Class II (oil and gas related) injection wells under section 1425 of the Act. This allows the State program, in lieu of meeting section 1422(b)(1)(A) parameters, to meet the following alternative in section 1425(a)(2):

> ". . . the State may demonstrate that such portion of the State program meets the requirements of subparagraphs (A) through (D) of section 1421(b)(1) and represents an effective program (including adequate recordkeeping and reporting) . . . ".

Although no regulations have been promulgated for section 1425 programs, interim final guidance (46 FR 27333, attached), paragraph 3.7(e), notes that in the Memorandum of Agreement the State should agree to provide EPA with an annual report on the operation of its program, and paragraph 6.3 describes the minimum content of the annual report.

The State's specific reporting requirements and EPA's procedures, as established by regulations and guidance, are considered below.

I. Grant regulations - 40 CFR Part 35

These regulations were amended and published October 12, 1982 (47 FR 44946). Section 35.125 directs the national program manager to issue guidance specifying, among other things, the program elements and other tracking criteria which the Regional office should negotiate with each individual State. Guidance

for the management of UIC grants is being developed and will be issued separately. The information on these elements is acquired to report to Congress and OMB on the status of the program and to justify budget requests. This is discussed in the preamble to 40 CFR Part 35 (47 FR 44949).

The evaluation of recipient performance is covered under 40 CFR §35.150. The recipient and the Regional office staff will negotiate a schedule for evaluation of the recipient's performance. The Regional Administrator will include this in the grant agreement.

II. Required State reports -

As mentioned above, EPA, in its evaluation of State programs, will use information contained in required State reports. These reports are:

(A) Annual program reports (40 CFR §144.8(b) and 1425 Guidance §6.3). Guidance to be issued;

(B) Financial Status reports and Property reports (40 CFR §30.505) in annual UIC grant Guidance;

(C) Quarterly noncompliance reports (for major permits) 40 CFR Section 144.8(a);

(D) Annual noncompliance reports (for nonmajor permits) (40 CFR Section 144.8(b));

Guidance

Four elements comprise the UIC overview system: Annual (Federal) reporting, grant reporting, noncompliance reporting, and program evaluations. While this guidance focuses on program evaluations, the three areas of reporting are also discussed below in order to provide a total overview picture. Figure 1 shows reporting and other deadlines on a timeline for FY 83.

I. Annual (Federal) reporting

The annual program report is due 60 days following the close of the calendar year, but there is an effort under way to consolidate much of the UIC program reporting. This report summarizes UIC activities which took place in the State during the year. By aggregating annual report data from all States (and EPA-run programs), EPA will be able to calculate and document the nationwide level of activity in the UIC program (number of permits issued, etc.). The injection

well inventory update is also considered a part of the annual report. The annual program report contains a narrative description of program developments and accomplishments along with a tabulation of activities in the following areas:

(A) Part I - Permit Review and Issuance and Wells in the Area of Review

(B) Part II - Compliance Evaluation

(C) Part III - Mechanical Integrity of Existing Wells

This information will be used to establish a tracking and evaluation system for the program.

The annual program report should also address problems encountered during the year and any program changes necessary to resolve them. Detailed guidance and forms for annual program reports are being developed and will be issued separately.

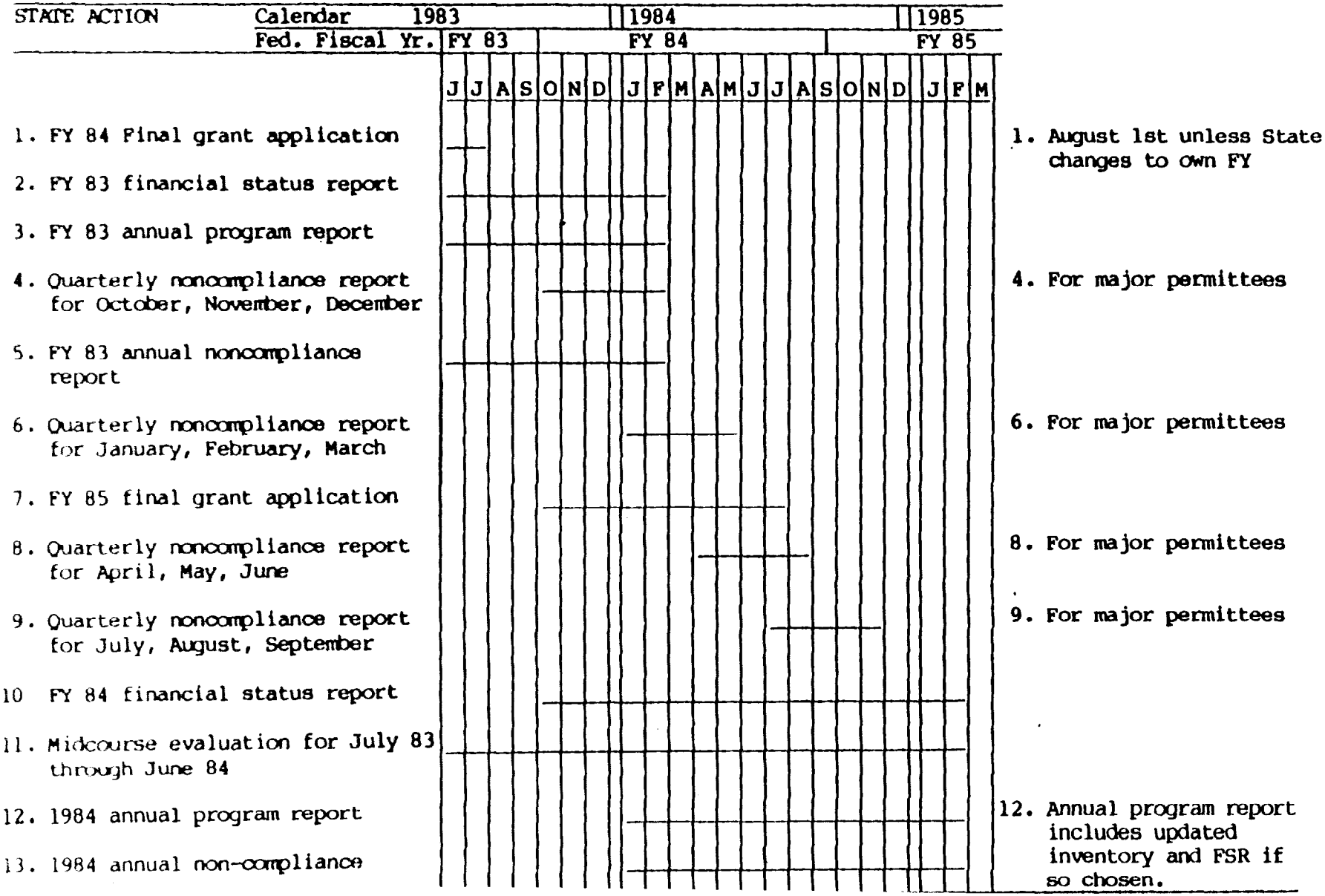
II. Grant reporting

Financial reporting for UIC grants and direct implementation funding is outlined in UIC grant Management Guidance which is being issued separately. Regional offices will provide Headquarters with object class and program element budget information from State grants at the time of grant award, subsequent increases, and again following the close of the budget period. States will submit financial status reports as required by 40 CFR Section 30.505.

III. Noncompliance reporting

Noncompliance reports, required by 40 CFR Sections 144.8(a)(1) and 144.8 (b), are to be prepared quarterly for "major" facilities and annually for all other facilities. EPA has defined "major UIC facilities" in GWPG #18 as Class I and Class IV wells; however, some States have used different criteria in their MOAs and expanded their definition to include other types of injection wells. Noncompliance reporting for non-majors is done annually and is due at the same time as the annual (Federal) report.

Figure 1
UIC Reporting Timeline for FY 83



IV. State program evaluations

Prior to the start of the Fiscal Year, the RO should reach agreement with the State on the criteria and procedures to be use by the RO for overview of the State's program during the year. This agreement can be formal (e.g. an amendment to the delegation MOA), or included as part of the UIC grant application.

The RO should perform at least one on-site evaluation of each primacy State each year. Additional evaluations can be done if it so desired and if resources permit. The EPA State program manager should attend the evaluation conference, along with other EPA staff as appropriate. The evaluations should be coordinated with the EPA evaluation of ROs and the Office of Water operating guidance.

A. The evaluation conference has the following functions:

(1) To evaluate the State's performance against commitments during the current budget period;

(2) To identify any changes which should be made in the State's plan of work for the remainder of the budget period;

(3) To provide EPA with "feedback" on what EPA's role should be for the remainder of the budget period and beyond;

(4) To plan for the upcoming budget period; and

(5) To inform the State of adequacy of reports and State variances with national averages.

Following the evaluation conference, the RO should draft an evaluation report regarding the State's performance. The State should have an opportunity to review this report before it is finished. Copies of the final report should be sent to the State and Headquarters.

B. The RO should reference the following documents in evaluating the State's performance:

(1) Memorandum of Agreement (MOA)

The RO should assess whether the State has complied with the procedures and commitments set forth in the UIC delegation Memorandum of Agreement.

(2) Program description

The RO should evaluate whether the State's program is being implemented as outlined in the UIC program description which was a part of the primacy application.

(3) State regulations

The RO should check to ensure that the State's actions are in accordance with the State UIC regulations.

(4) Grant award document and grant work plan

The RO should reference the budget and grant conditions of the UIC grant award document for the budget period in evaluating the State's performance. The RO should also compare the State's accomplishments with the program grant work plan for the budget period.

(5) EPA operating guidance

The RO should compare State objectives with the national and Regional program priorities set by the FY operating guidance.

(6) Prior evaluation reports

The RO should review the recommendations of prior evaluation reports to see if the State has implemented them.

In addition, RO staff should draw on their experience from evaluating the UIC programs of other States and from running UIC programs directly in assessing the State's performance and making recommendations.

The RO should develop overview mechanisms to evaluate items such as those listed below. The RO should not simply pose the questions below to the State, but should evaluate the quality of the State's program in these areas based on direct observations.

C. The following areas may be reviewed by the RO during program evaluations. The RO should make sure that the areas reviewed correspond to the Program Elements defined in grants guidance (GWPG #28), and the "measures" contained in the Office of Wate Accountability System. (The list that follows is only intended to be a "laundry list" and not a hierarchy classification.)

(1) Permitting Process

(a) Technical Quality of Permits

- Are technical judgments of good quality?

- Do construction and operation requirements conform with program description, State regulations, and MOA?

(b) Accomplishments vs. Projections

- Is permit reissuance proceeding on schedule (if applicable)?

(c) Response to Comments

- How well does the State respond to public comments on proposed permits?

(d) Exceptions

- If the State regulations allow exceptions to construction, operation or hearing requirements, have these been granted in such a way as to protect USDWs?

(2) Compliance Actions

(a) Investigation Procedures

(b) Response to Complaints

(c) Accomplishments vs. Projections

- Were the projected number (or percentage) of witnessings of MITs, plugging, etc., accomplished?

(d) Review of Operator reports

- Did the State review operator reports and take appropriate action when necessary?

(e) Technical Actions

(3) Enforcement Actions

(a) Timeliness

- Were enforcement actions initiated quickly when warranted?

(b) Effectiveness

- Did the actions taken resolve the problem?

(c) Adequacy

- Were the actions taken appropriate?

(d) Emergency Response

- How well did the State respond to emergency situations?

(4) Program Coordination

(a) Within UIC

(b) With RCRA

(c) With Clean Water Act programs

(d) With Superfund program

(5) Administrative Management

(a) Regulation Revision

- Did State consider revising regulations to follow an EPA regulation change?

- Did State inform EPA of proposed changes to State UIC?

(b) Staff Training

- How well are new State UIC staff trained?

- Are all State UIC staff kept current with training on technical issues?

(c) Special Studies

- Were special studies or projects (where applicable) completed on time and with quality results?

(d) Grant-Related Issues

- Is the State's fiscal recordkeeping adequate?

- Is the State's property management system adequate for property purchased with grant funds?

- How are Resources used?

(e) Quality Assurance (QA)

- Did the State develop adequate QA plans for UIC activities?

- Is the QA project plan being implemented?

(f) Data Management

- How does State maintain all information?

- Does State maintain an updated well inventory system?

D. Many opportunities exist for the RO to gain informatio necessary to develop a fair and accurate evaluation of the State's performance. Frequent personal contacts with State staff, review of State reports and documents, and the discussion at the evaluation conferences all provide valuable information on which EPA can make judgments. Fiscal matters, of course, are subject to fiscal audit; however, the critical program areas of permitting, compliance and enforcement will require special review. The RO should utilize one or more of the following methods for gathering information on the State's program implementation activities. The ROs and the State should agree, prior to the beginning of the evaluation period on the subjects to be considered

(1) File Reviews

The RO may utilize after-the-fact review of

the State's files to assess permitting, compliance and enforcement performance. This review may be done in "random" fashion, or the RO may want to concentrate on permits or actions in a certain geographical area, or geologic formation, or on a certain well type. As a general rule, the RO should review 10 percent of the permits issued/actions taken, or should review 10 actions/permits per year, whichever number is more. The RO should make an effort to ensure that the sample is representative. However, the RO should negotiate with the State the appropriate number of reviews for each State program.

(2) "Real Time" Reviews

In situations where the RO can review draft permits/enforcement actions (prior to issuance by the State) within the normal time frames for action, the RO may wish to use this approach. This should not be interpreted as a "veto" power over proposed permits; it is simply a mechanism for accomplishing overview when permit issuance time frames allow and when the State may benefit from EPA review prior to issuance. As an example, the process for issuing Class I hazardous waste well permits may allow time for such a review by EPA.

(3) Inspection "audits" (joint inspections)

As an alternative to (or in addition to) the file review discussed above, the RO may evaluate State compliance activity by accompanying State inspectors as they do their field work. The number of such "audits" to be conducted and coordination of schedules should be negotiated with the State in advance.

V. Regional program evaluation

Headquarters may use the criteria and procedures outlined above to evaluate performance in non-primacy States and on Indian lands. As with State overview, Headquarters and the RO should agree in advance on the specific criteria and procedures to be followed in the overview process.

Implementation

The ROs should use this document to evaluate and complement the Regional overview policies. Overview criteria should be integrated with the MOA, to assure full agreement by the States.

Filing Instructions

This document should be filed under Ground Water Program Guidance #30 (GWPG #30).

Action Responsability

For further information on this guidance contact:

Dr. Jentai Yang, P.E., Chief
State Program Implementation Section
Ground Water Protection Branch (WH-550)
U.S. EPA
401 M Street, SW
Washington, DC 20460

FTS 382-5562

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the amendments added a new Section 1425 to the Act. Section 1425 establishes an alternative method for a State to obtain primary enforcement responsibility for those portions of its Underground Injection Control (UIC) program related to the recovery and production of oil and gas. More specifically, "* * * in lieu of the showing required under subparagraph (A) of section 1422(b)(1) the State may demonstrate that such portion of the State program meets the requirements of subparagraphs (A) through (D) of section 1421(b)(1) and represents an effective program * * * to prevent underground injection which endangers drinking water sources."

Section 1422(b)(1) of the SDWA specifies that a State, in order to obtain approval for its UIC program, must make a satisfactory showing that it has adopted and will implement a program that meets the requirements of regulations issued by the Administrator. Such regulations have been promulgated at 40 CFR Parts 122, 123, 124 and 146.

This notice is intended to provide guidance for the implementation of the alternative demonstration provided for in the new Section 1425. It contains information on: (1) how States may apply for approval under Section 1425; and (2) the criteria the Environmental Protection Agency (EPA) will use in approving or disapproving applications under Section 1425.

DATES: Effective date: This guidance is issued as interim final. It becomes effective upon May 19, 1981.

COMMENT DATE: EPA will accept public comments on this document until July 20, 1981.

ADDRESS: Comments should be sent to Mr. Thomas E. Belk, Chief, Ground Water Protection Branch, Office of Drinking Water (WH-550), Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460.

Such comments, together with other relevant materials, will be maintained at the same address.

FOR FURTHER INFORMATION CONTACT: Mr. Thomas E. Belk (202) 426-3934.

OMB Approval: This guidance has been cleared for publication by the Office of Management and Budget.

Dated: May 11, 1981.

Walter C. Barber, Jr.,

Acting Administrator.

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Ch. I

[WH-FRL-1826-6]

State Underground Injection Control Programs

AGENCY: Environmental Protection Agency.

ACTION: Interim Final Guidance and Request for Public Comment.

SUMMARY: The Safe Drinking Water Act of 1974 (SDWA) was amended on December 8, 1980. Among other changes,

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1.0 Purpose and Scope

The 1980 amendments to the Safe [illegible]king Water Act (SDWA) added a Section 1425 which provides an alternative means for States to acquire primary enforcement responsibility for the control of underground injection related to the recovery and production of oil and natural gas. This document contains guidance on: (1) how States may apply for approval under Section 1425; and (2) the criteria EPA will use in approving or disapproving applications under Section 1425.

EPA is mindful of the fact that, in enacting Section 1425, Congress intended that States be offered an alternative to the detailed requirements of the regulations promulgated at 40 CFR Parts 122, 123, 124 and 146, and that State programs to control injections related to oil and gas production be considered on their merits. Nevertheless, Section 1425 does require a State to demonstrate that such portion of its Underground Injection Control (UIC) program: (1) meets the requirements of Section 1421(b)(1) (A) through (D); and (2) represents an effective program to prevent injection which endangers drinking water sources. Further, Section 1425 requires the Administrator of EPA to approve or [illegible]sapprove such portion of a State's UIC [illegible]gram for primary enforcement [illegible]ponsibility based on his judgment of whether the State has succeeded in making the required demonstrations.

Consequently, EPA believes that States are entitle to guidance on the implementation of Section 1425. The procedures and criteria contained in this document were developed in consultation with interested States. They represent a "model" State application and program which, in EPA's view, meet the requirements of the amended SDWA. A State application which conforms to these procedures and meets the suggested criteria should be approvable under Section 1425.

A State may choose to apply in a different form and make demonstrations different from those suggested in this document. EPA will consider such applications. However, they will have to be reviewed on a case-by-case basis to determine whether they meet the requirements of the Act. Such reviews may involve additional requests for information, more time and less assurance of ultimate approval.

This guidance and the regulations promulgated at 40 CFR Parts 122, 123, 124 and 146 are both aimed at achieving the same fundamental objective: the protection of underground sources of drinking water from endangerment by well injection. There are, however, some significant differences between them.

The most immediate difference is that one is a regulation and the other is guidance. This was a deliberate choice on the part of the Agency because it does not view the new Congressional mandate as requiring another set of detailed regulations for its implementation. In any event, there is insufficient time to develop such regulations in light of the short time remaining before State program submissions are due under Section 1422(b)(1)(A) of the SDWA.

A further difference is that State program submissions under Section 1422(b)(1) of the SDWA are required to meet a different legal standard from State program submissions under Section 1425. Under Section 1422(b)(1)(A), the State is required to make a showing that its UIC program "meets the requirements of regulations in effect under section 1421; * * *" Under Section 1425, the State is required to demonstrate that the Class II portion of its UIC program meets the requirements of Section 1421(b)(1) (A) through (D) and represents an effective program to prevent underground injection which endangers drinking water sources.

As a consequence of these differences, this guidance is much less detailed than the regulations and leaves a great deal more discretion to the State to develop and EPA to approve State UIC programs under Section 1425.

2.0 Applications

2.1 Definition

For the purposes of Section 1425 of the SDWA:

1. The underground injection of brine or other fluids which are brought to the surface in connection with oil or natural gas production; and

2. Any underground injection for the secondary or tertiary recovery of oil or natural gas; and

3. Any injection for the storage of hydrocarbons which are liquid at standard temperature and pressure; shall be defined as "Class II" injections or wells.

2.2 Need for an Underground Injection Control (UIC) Program

Any State which has Class II wells must have an UIC program to assure that such wells do not endanger underground sources of drinking water (USDWs). A State may submit its Class II program to EPA for approval. If EPA approves the program, the State has primary enforcement responsibility for that portion of its UIC program.

If a State chooses not to apply, or if its program is disapproved, or if subsequent to approval the State loses primary enforcement responsibility because the Administrator determines, under Section 1425(c)(2), that the demonstration is no longer valid, EPA must prescribe and implement a program in that State. When EPA implements a Class II program for a State, it will do so in accordance with the requirements of 40 CFR Parts 122, 124 and 146.

A State which does *not* have any Class II wells *need not* develop a Class II control program in order to qualify for primacy under the UIC program. Under the regulations at 40 CFR 123.51(d), such a State only needs to demonstrate that Class II wells cannot legally occur until the State has developed an approved program to regulate such injections.

2.3 Applications Under Section 1425

Any State which has Class II wells may, at its option apply for primary for its Class II UIC program either: (1) under the regulations at 40 CFR Parts 122, 123, 124 and 146; or (2) under Section 1425 of the SDWA.

2.4 When Should Application be Made?

House Report No. 96-1348, accompanying the 1980 amendments, states on page 5 that: "The Committee expects that alternative demonstration[s] will be submitted on the same schedu[le]. Accordingly, as demonstrations requi[red] for state programs meeting Federal regulations promulgated under Section

...1(b)." States have 270 days from July ...80 to submit applications, or until *...20, 1981.*

This period may be extended by up to another 270 days by the Regional Administrators for "good cause", or until *January 15, 1982.*

A State need not wait until it is ready to submit its application for all classes of wells. EPA will entertain partial applications for primacy as long as the program for which approval is sought covers: (1) all elements of a program to regulate a particular class or classes of injection practices even if the class or classes involve the jurisdiction of more than one State agency; or (2) all elements of a program to regulate all the classes or types of wells within the jurisdiction of a single State agency. However, if a State submits a partial application, the alternative demonstration under Section 1425 may be used only for the Class II portion of the application. The portion of the program covering types of practices other than Class II will have to meet the requirements of 40 CFR Parts 122, 123, 124 and 146.

2.5 Effects of a Partial Application

The recent amendments have changed ...tion 1443 of the SDWA so that a ...s may receive grant support until ... 1982. After that date, it must have achieved full primacy in order for grant eligibility to continue. As a consequence, a State may receive partial primacy for its Class II control program and continue to receive grants: (1) if it has obtained an extension for submitting the remainder of its application; (2) until it declares its intention not to file any further applications; (3) until EPA terminates its grant for cause; or (4) until July 1982, whichever is soonest.

If a State receives full primacy, its eligibility for grants will, of course, continue.

3.0 Elements of an Application for Primacy under Section 1425

3.1 Elements of a State Application

A complete State submission should contain the following elements:

a. a letter from the Governor;
b. a description of the program;
c. a statement of legal authority;
d. copies of the pertinent statutes and regulations;
e. copies of the pertinent State forms; and
f. a signed copy of a Memorandum of ...ement.

The nature of these elements is described further below.

3.2 Letter From the Governor

The letter from the Governor should:

a. request approval of the State's program for primacy under the UIC program;
b. specify whether approval is sought under Section 1425 of the SDWA or under 40 CFR Parts 122, 123, 124, and 146; and
c. affirm that the State is willing and able to carry out the program described.

3.3 Program Description

A State's application is expected to contain a full description of the program for which approval is sought, in sufficient detail to enable EPA to make the judgments outlined in Section 5 below. Such a description should:

a. Specify the structure, coverage and scope of the program;
b. Specify the State permitting process and address, to the extent applicable, the following elements:
1. Who applies for the permit or the authorization by rule;
2. Signatories required for permit application and reports;
3. Conditions applicable to permits, including: duty to comply with permit conditions, duty to reapply, duty to halt or reduce activity, duty to mitigate, proper operation and maintenance, permit actions, property rights, inspection and entry monitoring, record keeping, and reporting requirements;
4. Compliance schedules;
5. Transfer of permits;
6. Termination of permits;
7. Whether area permits or project permits are granted;
8. Emergency permits;
9. The availability and use of variances and other discretionary exemptions to programmatic requirements; and
10. Administrative and judicial procedures for the modification of permits.
c. Describe the operation of any rules used by the State to regulate Class II wells;
d. Describe the technical requirements applied to operators by the State program;
e. Include a description of the State's procedures for monitoring, inspection and requiring reporting from operators;
f. Discuss the State's enforcement program, e.g.:
1. Administrative procedures for dealing with violations;
2. Nature and amounts of penalties, fines and other enforcement tools;
3. Criteria for taking enforcement actions; and
4. If the State is seeking approval for an existing program, summary data on:
A. Past practice in the use of enforcement tools;
B. Current compliance/non-compliance with State requirements;
C. Repeat violations at the same well or by the same operator at different wells;
D. Well failure rates; and
E. USDW contamination cases based on actual field work and citizen complaints.
g. Detail the State's staffing and resources, and demonstrate that these are sufficient to carry out the proposed program;
h. If more than one State agency is involved in the Class II program, describe their relationships with regard to carrying out the Class II program;
i. Contain a reasonable schedule for completion of an inventory of Class II wells in the State;
j. Include the procedures for exempting aquifers, a list of the aquifers or portions of aquifers proposed for exemption at the time of application, and the reasons for the proposed exemptions, unless these have been described in the partial applications made by the State;
k. Contain a plan (including the basis for assigning priorities) for the review of all existing Class II wells in the State within five years of program approval to assure that they meet current non-endangerment requirements of the State (this may include permit modification and reissuance, if appropriate);
l. Describe State requirements for ensuring public participation in the process of issuing permits and modifying permits in the case of substantial changes in the project area, injection pressure or the injection horizon; and
m. Describe State procedures for responding to complaints by the public.

3.4 Statement of Legal Authority

The statement of legal authority is intended to assure EPA that the State has the legal authority to carry out the program described. It may be signed by a competent legal officer of the State, for example, the Attorney General, the Counsel for the responsible State agency, or any other officer who represents the Agency in legal matters.

The statement may, at the option of the State, consist of a full analysis of the legal basis for the State program, including case law as appropriate. Or the statement may consist of a simple certification by the legal representative that the State has adequate authority to carry out the described progam. If the State chooses to submit a certification, the program description should detail

the legal authority on which the various ments of the State's program rest.

Copies of Statutes and Regulations

The application should contain copies of all applicable State statutes, rules and regulations, including those governing State administrative procedures.

3.6 Copies of State Forms

The application should contain examples of all forms used by the State in administering the program, including application forms, permit forms and reporting forms.

3.7 Memorandum of Agreement

The head of the cognizant State agency and the EPA Regional Administrator shall execute a memorandum of agreement which shall set forth the terms under which the State will carry out the described program and EPA will exercise its oversight responsibility. A copy of such an agreement signed by the Director of the State agency, shall be submitted as part of the application.

At a minimum, the memorandum of agreement should:

a. Include a commitment by the State that the program will be carried out as described and be supported by an ropriate level of staff and resources;

.. Recognize EPA's right of access to any pertinent State files;

c. Specify the procedures (e.g., notification to the State and participation by State officials) governing EPA inspections of wells or operator records;

d. Recognize EPA's authority to take Federal enforcement action under Section 1423 of the SDWA in cases where the State fails to take adequate enforcement actions;

e. Agree to provide EPA with an annual report on the operation of the State program, the content of which may be negotiated between EPA and primacy States from time to time;

f. Provide that aquifer exemptions for Class II wells be consistent with aquifer exemptions for the rest of the UIC program;

g. When appropriate, may include provisions for joint processing of permits by the State and EPA for facilities or activities which require permits from both EPA and the State under different programs; and

h. Specify that if the State proposes to allow any mechanical integrity tests other than those specified or justified in e program application, the Director notify the cognizant Regional ministrator and provide enough information about the proposed test that a judgment about its usefulness and reliability may be made.

4.0 Process for Approval or Disapproval of Application

4.1 Public Participation by States

Section 1425 relieves States of the responsibility to hold public hearings or afford an opportunity for public comment prior to submitting an application to EPA. Therefore, when application is made by a State under Section 1425, it may, but need not, provide an opportunity for public hearings or comments.

4.2 Complete Applications

Within 10 working days of the receipt of a final application, EPA will determine whether the application is complete or not and so notify the State in writing. If the application is found to be incomplete it will be returned to the State with specific requests for additional material or changes. However, the State may, at its option, insist that EPA complete its review of an application as submitted.

4.3 EPA Review

a. EPA has 90 days to approve or disapprove an application. If EPA finds that the application is complete, the review period will be deemed to have begun on the date the application was received in the cognizant Regional Office. If an application has been found to be incomplete and the State insists that EPA proceed with its review of the application as submitted, the review period will begin on the date that EPA receives the State's request to proceed in writing. The review period may be extended by the mutual consent of EPA and the State.

b. Within the 90-day period, EPA will request public comments and provide an opportunity for public hearing on each application, in the applying State, in accordance with 40 CFR 123.54(c) and (d). If the State has not done so, EPA will hold at least one public hearing in the State.

c. If a State's application is approved, the State shall have primary enforcement responsibility for its Class II program.

d. If a State's application is disapproved, EPA intends within 90 days of disapproval or as soon thereafter as feasible, prescribe a Class II program for the State in accordance with Section 1422(c) of the SDWA and 40 CFR Parts 122, 124 and 146.

5.0 Criteria for Approving or Disapproving State Programs

5.1 General

Section 1425 of the SDWA states that: "* * * the State may demonstrate that [the Class II] portion of the State program meets the requirements of subparagraphs (A) through (D) of Section 1421(b)(1) and represents an effective program (including adequate recordkeeping and reporting) to prevent underground injection which endangers drinking water sources."

Thus Section 1425 requires that a State, in order to receive approval for its Class II program under the optional demonstration, make a successful showing that its program meets five conditions:

a. Section 1421(b)(1)(A) requires that an approvable State program prohibit any underground injection in such State which is not authorized by permit or rule.

b. Section 1421(b)(1)(B) requires that an approvable State program shall require that:

1. The applicant for a permit must satisfy the State that the underground injection will not endanger drinking water sources; and

2. No rule may be promulgated which authorizes any underground injection which endangers drinking water sources.

c. Section 1421(b)(1)(C) requires that an approvable State program include inspection, monitoring, recordkeeping, and reporting requirements.

d. Section 1421(b)(1)(D) requires that an approvable State program apply to: (1) underground injections by Federal agencies; and (2) underground injections by any other person, whether or not occurring on property owned or leased by the United States.

e. Section 1425(a) requires that an approvable State program represent an effective program to prevent underground injection which endangers drinking water sources.

The following sections provide guidance to EPA personnel for making the required judgments with respect to these five conditions in the review of an application for approval under Section 1425.

5.2 Section 1421(b)(1)(A)

The question of whether a State program prohibits unauthorized Class II injections is a function of the State's statutory and regulatory authority. A determination of whether the State program meets this condition should made from a review of the coverage a scope of the program, the statement of

legal authority submitted by the State, ...d of the statutes and regulations ...nselves. One important ...sideration is whether the State has ...n appropriate formal mechanism for modifying permits in cases where the operation has undergone significant change.

5.3 Section 1421(b)(1)(B)

The determination of whether a State program is adequate in requiring that the applicant demonstrate that the proposed injection will not endanger drinking water sources turns on two elements: (1) whether the State program places on the applicant the burden of making the requisite showing; and (2) the extent of the information the applicant is required to provide as a basis for the State agency's decision. Whether the burden of making the requisite showing is on the applicant should be determined from the State's description of its permitting process. If the necessary information is available in State files, the Director need not require it to be submitted again. However, as a matter of principle, the applicant should not escape ultimate responsibility for assuring that the information about his operation is accurate and available. One consideration in this regard is whether ...well operator has a responsibility to ...rm the permitting authority about ...ny material change in his operation, or any pertinent information acquired since the permit application was made.

With regard to the extent of the information to be considered by the Director, the State program should require an application containing sufficiently detailed information to make a knowledgeable decision to grant or deny the permit. Such information should include:

a. A map showing the area of review and identifying all wells of public record penetrating the injection interval;

b. A tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data should include a description of each well's type, construction, date of drilling, location, depth, record of plugging and/or completion, and any additional information the Director may require;

c. Data on the proposed operation, including:

1. Average and maximum daily rate and volume of fluids to be injected;

2. Average and maximum injection pressure; and

3. Source, and an appropriate analysis ...injection fluid if other than produced ...ter, and compatibility with the receiving formation;

d. Appropriate geological data on the injection zone and confining zones including lithologic description, geological name, thickness, and depth;

e. Geologic name, and depth to bottom of all underground sources of drinking water which may be affected by the injection;

f. Schematic drawings of the surface and subsurface construction details of the system;

g. Proposed stimulation program;

h. All available logging and testing data on the well; and

i. The need for corrective action on wells penetrating the injection zone in the area of review.

There are two circumstances under which the director may require less information from the applicant. First, the Director need not require an applicant to resubmit information which is up-to-date and readily available in State files. Second, a State's application may outline circumstances or conditions where certain items of information may not be required in a specific case. Such circumstances may include situations where, based upon demonstrable knowledge available to the director about a specific operation, the Director proposes to permit that operation without requiring corrective action or alternatives to it. Examples of such circumstances are gravity or vacuum injections and injections through zones of plastic heaving shales.

Section 1421(b)(1)(B) also requires a State which authorizes Class II injections by rule to show that such rules do not allow any underground injection which endangers drinking water sources. The determination of whether the State program meets this requirement may be made from the program description, statement of legal authority, the text of the rules themselves, and the manner in which the State has administered such rules.

5.4 Section 1421(b)(1)(C)

This section of the SDWA requires that an approvable State program contain elements for inspection, monitoring, recordkeeping and reporting. The adequacy of the State program in these respects may be assessed with the use of the following criteria.

a. *Inspection.*

An approvable State program is expected to have an effective system of field inspection which will provide for:

1. Inspections of injection facilities, wells, and nearby producing wells; and

2. The presence of qualified State inspectors to witness mechanical integrity tests, corrective action operations, and plugging procedures.

An adequate program should insure that, at a minimum, 25% of all mechanical integrity tests performed each year will be witnessed by a qualified State inspector.

b. *Monitoring, Reporting and Recordkeeping.*

1. The Director should have the authority to sample injected fluids at any time during injection operation.

2. The operator should be required to monitor the injection pressure and injection rate of each injection well at least on a monthly basis with the results reported annually.

3. The Director should require prompt notice of mechanical failure or downhole problems in injection wells.

4. The State should assure retention and availability of all monitoring records from one mechanical integrity test to the next (i.e., 5 years).

5.5 Section 1421(b)(1)(D)

An approvable State program must demonstrate the State's authority to regulate injection activities by Federal agencies and by any other person on property owned or leased by the United States. The adequacy of the State's authority in these regards may be assessed on the basis of the program description and statement of legal authority submitted by the State. Such authority and the programs to carry it out must be in place at a time no later than the approval of the program by EPA. EPA will administer the UIC program on Indian lands unless the State has the authority and is willing to assume responsibility.

5.6 Section 1425(a)

In addition to the four demonstrations discussed above, Section 1425 requires a State to demonstrate that the Class II program for which it seeks approval in fact "represents an effective program to prevent underground injection which endangers drinking water sources." Among the factors that EPA will consider in assessing the "effectiveness" of a State program are: (1) whether the State has an effective permitting process which results in enforceable permits; (2) whether the State applies certain minimum technical requirements to operators by permit or rule; (3) whether the State has an effective surveillance program to determine compliance with its requirements; (4) whether the State has effective means to enforce against violators; and (5) whether the State assures adequate participation by the public in the permit issuance process.

Evidence of the presence or absence of ground water contamination is important. However, it cannot serve as

be sole criterion of effectiveness. Not all States have collected such evidence systematically. More importantly, the absence of evidence of contamination, especially if based on an absence of complaints, is not necessarily proof that ground water contamination has not occurred.

Each of the five factors named above is discussed further in the following subsections. In its review of these factors, EPA is not necessarily looking for a minimum set or even any particular elements. The effectiveness of a State program will be assessed by reviewing the State's entire program. The absence of even an important element in a State program may not by itself mean that the program is ineffective as long as there is a credible program for detecting and eliminating injection practices which allow any migration which endangers drinking water sources.

a. *Permitting Process.*

Section 3.3b of the Program Description outlines the major elements of the permitting process. The listing of these considerations should not be viewed as Federally imposed minimum policy, but rather as an outline of the information which will be necessary for EPA to evaluate the effectiveness of the State's permitting process.

States may deal with permitting considerations, such as limitations on the transfer of permits, in a variety of ways. There are many permitting approaches which may be equally effective. EPA's review will turn on whether the permitting process, taken as a whole, represents an effective mechanism for applying appropriate and enforceable requirements to operators.

b. *Technical Criteria.*

Any approvable State program should have the authority to apply, by permit or rule, certain technical requirements designed to prevent the migration of injected or formation fluids into USDWs. Any State program adopting the language of 40 CFR 146 should be considered approvable on its face value for that portion of the program to which it applies. State applications not relying on the language of 40 CFR 146 should be reviewed for the presence and adequacy of the following kinds of technical requirements in the State program.

1. *Siting.*

Siting requirements should be considered in the placement and construction of any Class II disposal well. Such requirements should be designed to assure that disposal zones are hydraulically isolated from underground sources of drinking water (USDW's). Such isolation may be shown through information supplied by the applicant, or data, on file with the State, which would be analyzed by qualified State staff.

2. *Construction.*

A. Effective programs should require all newly drilled Class II wells to be cased and cemented to prevent movement of fluids into USDWs. Specific casing and cementing requirements should be based on:

i. the depth to the base of the USDW;

ii. the nature of the fluids to be injected; and

iii. the hydrologic relationship between the injection zone and the base of the USDW.

B. All newly converted Class II wells should be required to demonstrate mechanical integrity.

3. *Operation.*

A. Adequate operating requirements should establish a maximum injection pressure for a well which assures that the pressure in the injection zone during injection does not initiate new fractures or propagate existing fractures in the confining zone. Limitations on injection pressure should also preclude the injection from causing the movement of fluids into an underground source of drinking water.

Acceptable methods for establishing limitations on injection pressures include:

i. Calculated fracture gradients;

ii. Injectivity tests to establish fracture pressure; or

iii. Other compelling geologic, hydrologic or engineering data.

B. An effective State program should have the demonstrated ability to detect and remedy system failures discovered during routine operation or monitoring so as to mitigate endangerment to USDWs.

4. *Plugging and Abandonment.*

Plugging and abandonment requirements should be reviewed for the presence of the following elements:

A. That appropriate mechanisms are available in the State program to insure the proper plugging of wells upon abandonment;

B. That all Class II wells are required, upon abandonment, to be plugged in a manner which will not allow the movement of fluids into or between USDWs; and

C. That operators are required to maintain financial responsibility in some form, for the plugging of their injection wells.

5. *Area of Review.*

An effective State program is expected to incorporate the concept of an area of review defined as a radius of not less than ¼ mile from the well, field, or project.

Alternatively, a State program may substitute a concept of a zone of endangering influence in lieu of this fixed radius. The zone of endangering influence should be determined for the estimated life of the well, field, or project through the use of an appropriate calculation, formula, or mathematical model that takes the relevant geologic, hydrologic, engineering and operational features of the injection well, field or project into account.

6. *Corrective Action.*

An approvable State program is expected to include the authority to require the operator to take corrective actions on wells within the area of review or zone of endangering influence.

A. Corrective action may include any of the following types of requirements:

i. recementing;

ii. workover;

iii. reconditioning; or

iv. plugging or replugging.

B. A State program may provide the Director the discretion to specify the following types of requirements *in lieu* of immediate corrective action:

i. Permit conditions which will assure a negative hydraulic gradient at the base of USDW at the well in question;

ii. Monitoring program (i.e., monitoring wells completed to the base of USDW within the zone of influence); or

iii. Periodic testing to determine fluid movement outside the injection interval at other wells within the area of review.

However, if monitoring or testing indicate the potential endangerment of any USDW, corrective action shall be required.

C. In cases where the Director has demonstrable knowledge of geologic, hydrologic, or engineering conditions, specific to a given operation, which assure that wells within the zone of endangering influence or area of review will not serve as conduits for migration of fluids into an USDW, a State program may provide the Director the discretion to permit a specific operation without requiring corrective actions or any of the alternatives specified in Subsection (B) above. Examples of such circumstances are gravity or vacuum injections and injections through zones of plastic heaving shales. However, under the statute the State program may, in no circumstances, authorize an injection which endangers drinking water sources.

7. *Mechanical Integrity.*

An approvable State program is expected to require the operator to demonstrate the mechanical integrity of a *new* injection well prior to operation and of *all* injection wells periodically, at least once every five years. For the purpose of assessing the State's mechanical integrity requirements

An injection well has mechanical integrity if:

i. there is no significant leak in the casing, tubing or packer; and

ii. there is no significant fluid movement into an underground source of drinking water through vertical channels adjacent to the well bore.

B. The following tests are considered to be acceptable tests to demonstrate the absence of significant leaks:

i. a pressure test with liquid or gas;

ii. the monitoring of annulus pressure in those wells injecting at a positive pressure, following an initial pressure test; or

iii. all other tests or combinations of tests considered effective by the Director.

C. The following are considered to be acceptable tests to demonstrate the absence of significant fluid movement in vertical channels adjacent to the well bore:

i. cementing records (they need not be reviewed every five years);

ii. tracer surveys;

iii. noise logs;

iv. temperature surveys; or

v. any other test or combination of tests considered effective by the Director.

D. If the State program allows or specifies alternative tests under B(iii) or C)(v) above, the program description should supply sufficient information so that the usefulness and reliability of such tests in the proposed circumstance may be assessed.

c. *Surveillance.*

The demonstration of an effective surveillance program has already been discussed in Section 5.4 above.

d. *Enforcement.*

A State's enforcement of its program is a crucial consideration in making the judgment of whether the State program is effective. States have used a number of enforcement tools to shift the economic incentive of operation more toward compliance with the law. Often State programs have employed civil penalties and, for repeat or willful violators, criminal fines or jail sentences. Other commonly used practices are administrative orders and court injunctions. In the area of oil and gas regulation, many States have found pipeline severance a powerful tool. In assessing a State's enforcement program, EPA will consider not whether a State has all or any particular enforcement tools but whether the State's program, taken as a whole, represents an effective enforcement effort. Certainly, there are many enforcement matrices which create effective programs. In addition, EPA will look at whether the State has exercised its enforcement authorities adequately in the past.

e. *Public Participation.*

One factor to be used by EPA in assessing the "effectiveness" of a State program is the degree to which it assures the public an opportunity to participate in major regulatory decisions. It is assumed that most States already have legislation that governs public participation in State decision-making and defines such processes as appeals, etc. Therefore, the following represents only a minimal list of elements that EPA will consider:

1. Public Notice of permit application:

A. The State may give such notice or it may require the applicant to give notice.

B. The method of giving notice should be adequate to bring the matter to the attention of interested parties and, in particular, the public in the area of the proposed injection. This may involve one or more of the following:

i. Posting;

ii. Publication in an official State register;

iii. Publication in a local newspaper;

iv. Mailing to a list of interested persons; or

v. Any other effective method that achieves the objective.

C. An adequate notice should:

i. Provide an adequate description of the proposed action;

ii. Identify where an interested party may obtain additional information. This location should be reasonably accessible and convenient for interested persons;

iii. State how a public hearing may be requested; and

iv. Allow for a comment period of at least 15 days.

2. The State program should provide opportunity for a public hearing if the Director finds, based upon requests, a significant degree of public interest.

A. The Director may hold a hearing of his own motion and give notice of such hearing with the notice of the application.

B. If a public hearing is decided upon during the comment period, notice of public hearing shall be given in a newspaper of general circulation. The hearing should be scheduled no sooner than 15 days after the notice.

3. The final State action on the permit application should contain a "response to comments" which summarizes the substantive comments received and the disposition of the comments.

6.0 Oversight

6.1 *General*

Once a Class II program is approved under Section 1425, the State has primary enforcement responsibility for such portion of its UIC program. The Class II program is a grant-eligible activity and is subject to the same EPA oversight as other portions of the UIC program (e.g., State/EPA Agreements, Mid-course Reviews, grant conditions, etc.).

6.2 *Mid-Course Evaluation*

EPA will conduct a mid-course evaluation of Class II programs as envisioned in 40 CFR 122.18(C)(4)(ii) and 146.25. However, *in lieu* of a special reporting requirement, additional requirements have been added to the State's annual report to EPA. Should this mechanism prove unable to provide the necessary data, a special reporting requirement may be negotiated with the primacy States at a later date.

6.3 *Annual Reporting*

As part of the Memorandum of Agreement, each State shall agree to submit an annual report on the operation of its Class II program to EPA. At a minimum the annual report shall contain:

a. An updated inventory;

b. A summary of surveillance programs, including the results of monitoring and mechanical integrity testing, the number of inspections, and corrective actions ordered and witnessed;

c. An account of all complaints reviewed by the State and the actions taken;

d. An account of the results of the review of existing wells made during the year; and

e. A summary of enforcement actions taken.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MEMORANDUM JUN 17 1983

SUBJECT : FY 84 Grant Guidance for the Underground Water Source Protection (or UIC) Program

FROM : Victor J. Kimm, Director
Office of Drinking Water, (WH-550)

TO : Water Division Directors
Water Supply Branch Chiefs
Regions I - X

Region and appropriate Headquarters offices (Program Development and Evaluation, General Counsel, Drinking Water and staff in the Immediate Office of Water) have reviewed and commented on the subject guidance. We have incorporated most of the comments, especially those dealing with funding eligibility. The guidance confirms the preliminary interpretations that have been given to the eligibility questions and clarify others as follows:

- States are not eligible for grant awards in FY 84 unless they have primary enforcement responsibility for the UIC program. They are not eligible for reimbursement of any program expenses incurred prior to the grant award.

- 1425 programs are eligible for funding. Programs that include all well classes except Class II are also eligible for funding.

- Programs that ban some well classes and regulate all others as described in 40 CFR §145.21 (d) (previously §123.51 (d)) are eligible for funding.

- In regard to implementation of the UIC program in non-primacy States, the ROs cannot enter into Cooperative Agreements with the State and they cannot award contracts to any State agency that has in any way participated in the program as the designated or secondary agency.

These clarifications were given to the program office by the grants attorney in OGC. Headquarters will prepare a deviation to allow the affected States to use internal carry-over funds in FY 84 until a grant is awarded.

The level of funding indicated in the second page of the guidance may be increased as the House has recommended $8,000,000 for the UIC program in FY 84, but the Senate has not yet acted. In the meantime, the State allotment shown in the attached table can be used as a basis for planning purposes.

Another development that may affect the State funding situation is that, as part of the reauthorization of the SDWA, the Office of Drinking Water will recommend a one year extension of the deadline for achieving primacy (Section 1443 (b) (2) and by extension, 40 CFR §35.460). However, it is not clear whether the law will be changed by September 30, 1983, and under the existing conditions this guidance stands as written. We will keep you informed of new developments.

Attachment

cc UIC Representatives Regions I-X
Jane Ephremides

for the management of UIC grants is being developed and will be issued separately. The information on these elements is acquired to report to Congress and OMB on the status of the program and to justify budget requests. This is discussed in the preamble to 40 CFR Part 35 (47 FR 44949).

The evaluation of recipient performance is covered under 40 CFR §35.150. The recipient and the Regional office staff will negotiate a schedule for evaluation of the recipient's performance. The Regional Administrator will include this in the grant agreement.

II. Required State reports -

As mentioned above, EPA, in its evaluation of State programs, will use information contained in required State reports. These reports are:

(A) Annual program reports (40 CFR §144.8(b) and 1425 Guidance §6.3). Guidance to be issued;

(B) Financial Status reports and Property reports (40 CFR §30.505) in annual UIC grant Guidance;

(C) Quarterly noncompliance reports (for major permits) 40 CFR Section 144.8(a);

(D) Annual noncompliance reports (for nonmajor permits) (40 CFR Section 144.8(b));

Guidance

Four elements comprise the UIC overview system: Annual (Federal) reporting, grant reporting, noncompliance reporting, and program evaluations. While this guidance focuses on program evaluations, the three areas of reporting are also discussed below in order to provide a total overview picture. Figure 1 shows reporting and other deadlines on a timeline for FY 83.

I. Annual (Federal) reporting

The annual program report is due 60 days following the close of the calendar year, but there is an effort under way to consolidate much of the UIC program reporting. This report summarizes UIC activities which took place in the State during the year. By aggregating annual report data from all States (and EPA-run programs), EPA will be able to calculate and document the nationwide level of activity in the UIC program (number of permits issued, etc.). The injection

well inventory update is also considered a part of the annual report. The annual program report contains a narrative description of program developments and accomplishments along with a tabulation of activities in the following areas:

(A) Part I - Permit Review and Issuance and Wells in the Area of Review

(B) Part II - Compliance Evaluation

(C) Part III - Mechanical Integrity of Existing Wells

This information will be used to establish a tracking and evaluation system for the program.

The annual program report should also address problems encountered during the year and any program changes necessary to resolve them. Detailed guidance and forms for annual program reports are being developed and will be issued separately.

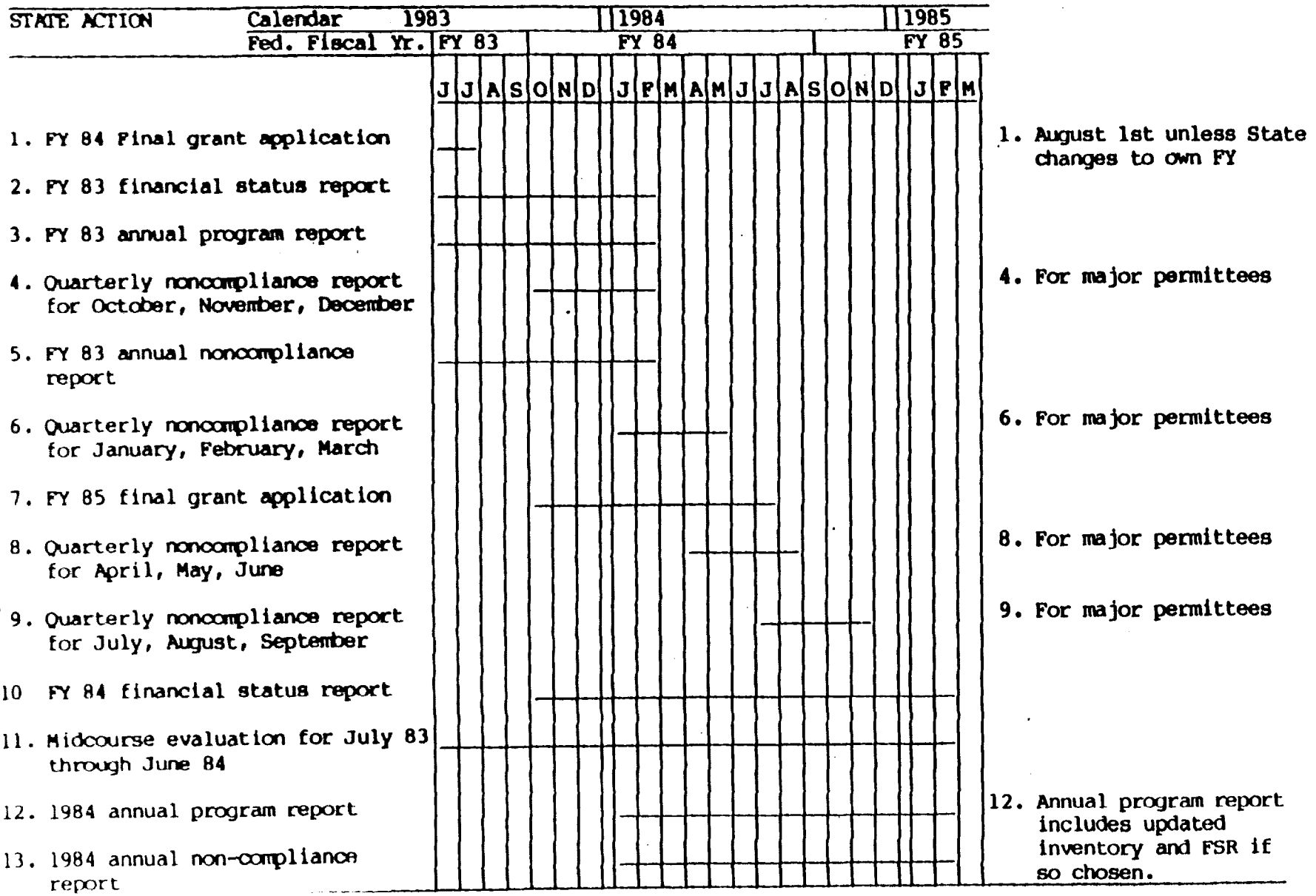
II. Grant reporting

Financial reporting for UIC grants and direct implementation funding is outlined in UIC grant Management Guidance which is being issued separately. Regional offices will provide Headquarters with object class and program element budget information from State grants at the time of grant award, subsequent increases, and again following the close of the budget period. States will submit financial status reports as required by 40 CFR Section 30.505.

III. Noncompliance reporting

Noncompliance reports, required by 40 CFR Sections 144.8(a)(1) and 144.8 (b), are to be prepared quarterly for "major" facilities and annually for all other facilities. EPA has defined "major UIC facilities" in GWPG #18 as Class I and Class IV wells; however, some States have used different criteria in their MOAs and expanded their definition to include other types of injection wells. Noncompliance reporting for non-majors is done annually and is due at the same time as the annual (Federal) report.

Figure 1
UIC Reporting Timeline for FY 83



IV. State program evaluations

Prior to the start of the Fiscal Year, the RO should reach agreement with the State on the criteria and procedures to be use by the RO for overview of the State's program during the year. This agreement can be formal (e.g. an amendment to the delegation MOA), or included as part of the UIC grant application.

The RO should perform at least one on-site evaluation of each primacy State each year. Additional evaluations can be done if it so desired and if resources permit. The EPA State program manager should attend the evaluation conference, along with other EPA staff as appropriate. The evaluations should be coordinated with the EPA evaluation of ROs and the Office of Water operating guidance.

A. The evaluation conference has the following functions:

(1) To evaluate the State's performance against commitments during the current budget period;

(2) To identify any changes which should be made in the State's plan of work for the remainder of the budget period;

(3) To provide EPA with "feedback" on what EPA's role should be for the remainder of the budget period and beyond;

(4) To plan for the upcoming budget period; and

(5) To inform the State of adequacy of reports and State variances with national averages.

Following the evaluation conference, the RO should draft an evaluation report regarding the State's performance. The State should have an opportunity to review this report before it is finished. Copies of the final report should be sent to the State and Headquarters.

B. The RO should reference the following documents in evaluating the State's performance:

(1) Memorandum of Agreement (MOA)

The RO should assess whether the State has complied with the procedures and commitments set forth in the UIC delegation Memorandum of Agreement.

(2) Program description

The RO should evaluate whether the State's program is being implemented as outlined in the UIC program description which was a part of the primacy application.

(3) State regulations

The RO should check to ensure that the State's actions are in accordance with the State UIC regulations.

(4) Grant award document and grant work plan

The RO should reference the budget and grant conditions of the UIC grant award document for the budget period in evaluating the State's performance. The RO should also compare the State's accomplishments with the program grant work plan for the budget period.

(5) EPA operating guidance

The RO should compare State objectives with the national and Regional program priorities set by the FY operating guidance.

(6) Prior evaluation reports

The RO should review the recommendations of prior evaluation reports to see if the State has implemented them.

In addition, RO staff should draw on their experience from evaluating the UIC programs of other States and from running UIC programs directly in assessing the State's performance and making recommendations.

The RO should develop overview mechanisms to evaluate items such as those listed below. The RO should not simply pose the questions below to the State, but should evaluate the quality of the State's program in these areas based on direct observations.

C. The following areas may be reviewed by the RO during program evaluations. The RO should make sure that the areas reviewed correspond to the Program Elements defined in grants guidance (GWPG #28), and the "measures" contained in the Office of Water Accountability System. (The list that follows is only intended to be a "laundry list" and not a hierarchy classification.)

(1) Permitting Process

(a) Technical Quality of Permits

- Are technical judgments of good quality?

- Do construction and operation requirements conform with program description, State regulations, and MOA?

(b) Accomplishments vs. Projections

- Is permit reissuance proceeding on schedule (if applicable)?

(c) Response to Comments

- How well does the State respond to public comments on proposed permits?

(d) Exceptions

- If the State regulations allow exceptions to construction, operation or hearing requirements, have these been granted in such a way as to protect USDWs?

(2) Compliance Actions

(a) Investigation Procedures

(b) Response to Complaints

(c) Accomplishments vs. Projections

- Were the projected number (or percentage) of witnessings of MITs, plugging, etc., accomplished?

(d) Review of Operator reports

- Did the State review operator reports and take appropriate action when necessary?

(e) Technical Actions

(3) Enforcement Actions

(a) Timeliness

- Were enforcement actions initiated quickly when warranted?

(b) Effectiveness

- Did the actions taken resolve the problem?

(c) Adequacy

- Were the actions taken appropriate?

(d) Emergency Response

- How well did the State respond to emergency situations?

(4) Program Coordination

(a) Within UIC

(b) With RCRA

(c) With Clean Water Act programs

(d) With Superfund program

(5) Administrative Management

(a) Regulation Revision

- Did State consider revising regulations to follow an EPA regulation change?

- Did State inform EPA of proposed changes to State UIC?

(b) Staff Training

- How well are new State UIC staff trained?

- Are all State UIC staff kept current with training on technical issues?

(c) Special Studies

- Were special studies or projects (where applicable) completed on time and with quality results?

(d) Grant-Related Issues

- Is the State's fiscal recordkeeping adequate?

- Is the State's property management system adequate for property purchased with grant funds?

- How are Resources used?

(e) Quality Assurance (QA)

- Did the State develop adequate QA plans for UIC activities?

- Is the QA project plan being implemented?

(f) Data Management

- How does State maintain all information?

- Does State maintain an updated well inventory system?

D. Many opportunities exist for the RO to gain information necessary to develop a fair and accurate evaluation of the State's performance. Frequent personal contacts with State staff, review of State reports and documents, and the discussion at the evaluation conferences all provide valuable information on which EPA can make judgments. Fiscal matters, of course, are subject to fiscal audit; however, the critical program areas of permitting, compliance and enforcement will require special review. The RO should utilize one or more of the following methods for gathering information on the State's program implementation activities. The ROs and the State should agree, prior to the beginning of the evaluation period on the subjects to be considered

(1) File Reviews

The RO may utilize after-the-fact review of

the State's files to assess permitting, compliance and enforcement performance. This review may be done in "random" fashion, or the RO may want to concentrate on permits or actions in a certain geographical area, or geologic formation, or on a certain well type. As a general rule, the RO should review 10 percent of the permits issued/actions taken, or should review 10 actions/permits per year, whichever number is more. The RO should make an effort to ensure that the sample is representative. However, the RO should negotiate with the State the appropriate number of reviews for each State program.

(2) "Real Time" Reviews

In situations where the RO can review draft permits/enforcement actions (prior to issuance by the State) within the normal time frames for action, the RO may wish to use this approach. This should not be interpreted as a "veto" power over proposed permits; it is simply a mechanism for accomplishing overview when permit issuance time frames allow and when the State may benefit from EPA review prior to issuance. As an example, the process for issuing Class I hazardous waste well permits may allow time for such a review by EPA.

(3) Inspection "audits" (joint inspections)

As an alternative to (or in addition to) the file review discussed above, the RO may evaluate State compliance activity by accompanying State inspectors as they do their field work. The number of such "audits" to be conducted and coordination of schedules should be negotiated with the State in advance.

V. Regional program evaluation

Headquarters may use the criteria and procedures outlined above to evaluate performance in non-primacy States and on Indian lands. As with State overview, Headquarters and the RO should agree in advance on the specific criteria and procedures to be followed in the overview process.

Implementation

The ROs should use this document to evaluate and complement the Regional overview policies. Overview criteria should be integrated with the MOA, to assure full agreement by the States.

Filing Instructions

This document should be filed under Ground Water Program Guidance #30 (GWPG #30).

Action Responsability

For further information on this guidance contact:

Dr. Jentai Yang, P.E., Chief
State Program Implementation Section
Ground Water Protection Branch (WH-550)
U.S. EPA
401 M Street, SW
Washington, DC 20460

FTS 382-5562

Sec 6.2 ch 6 3

the amendments added a new Section 1425 to the Act. Section 1425 establishes an alternative method for a State to obtain primary enforcement responsibility for those portions of its Underground Injection Control (UIC) program related to the recovery and production of oil and gas. More specifically, "* * * in lieu of the showing required under subparagraph (A) of section 1422(b)(1) the State may demonstrate that such portion of the State program meets the requirements of subparagraphs (A) through (D) of section 1421(b)(1) and represents an effective program * * * to prevent underground injection which endangers drinking water sources."

Section 1422(b)(1) of the SDWA specifies that a State, in order to obtain approval for its UIC program, must make a satisfactory showing that it has adopted and will implement a program that meets the requirements of regulations issued by the Administrator. Such regulations have been promulgated at 40 CFR Parts 122, 123, 124 and 146.

This notice is intended to provide guidance for the implementation of the alternative demonstration provided for in the new Section 1425. It contains information on: (1) how States may apply for approval under Section 1425; and (2) the criteria the Environmental Protection Agency (EPA) will use in approving or disapproving applications under Section 1425.

DATES: Effective date: This guidance is issued as interim final. It becomes effective upon May 18, 1981.

COMMENT DATE: EPA will accept public comments on this document until July 20, 1981.

ADDRESS: Comments should be sent to Mr. Thomas E. Belk, Chief, Ground Water Protection Branch, Office of Drinking Water (WH-550), Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460.

Such comments, together with other relevant materials, will be maintained at the same address.

FOR FURTHER INFORMATION CONTACT:
Mr. Thomas E. Belk (202) 426-3924.

OMB Approval: This guidance has been cleared for publication by the Office of Management and Budget.

Dated: May 11, 1981.

Walter C. Barber, Jr.,
Acting Administrator.

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Ch. I

[WH-FRL-1826-6]

State Underground Injection Control Programs

AGENCY: Environmental Protection Agency.

ACTION: Interim Final Guidance and Request for Public Comment.

SUMMARY: The Safe Drinking Water Act of 1974 (SDWA) was amended on December 8, 1980. Among other changes,

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1.0 Purpose and Scope

The 1980 amendments to the Safe [illegible]king Water Act (SDWA) added a Section 1425 which provides an alternative means for States to acquire primary enforcement responsibility for the control of underground injection related to the recovery and production of oil and natural gas. This document contains guidance on: (1) how States may apply for approval under Section 1425; and (2) the criteria EPA will use in approving or disapproving applications under Section 1425.

EPA is mindful of the fact that, in enacting Section 1425, Congress intended that States be offered an alternative to the detailed requirements of the regulations promulgated at 40 CFR Parts 122, 123, 124 and 146, and that State programs to control injections related to oil and gas production be considered on their merits. Nevertheless, Section 1425 does require a State to demonstrate that such portion of its Underground Injection Control (UIC) program: (1) meets the requirements of Section 1421(b)(1) (A) through (D); and (2) represents an effective program to prevent injection which endangers drinking water sources. Further, Section 1425 requires the Administrator of EPA to approve or [illegible]approve such portion of a State's UIC [illegible]gram for primary enforcement [illegible]ponsibility based on his judgment of whether the State has succeeded in making the required demonstrations.

Consequently, EPA believes that States are entitle to guidance on the implementation of Section 1425. The procedures and criteria contained in this document were developed in consultation with interested States. They represent a "model" State application and program which, in EPA's view, meet the requirements of the amended SDWA. A State application which conforms to these procedures and meets the suggested criteria should be approvable under Section 1425.

A State may choose to apply in a different form and make demonstrations different from those suggested in this document. EPA will consider such applications. However, they will have to be reviewed on a case-by-case basis to determine whether they meet the requirements of the Act. Such reviews may involve additional requests for information, more time and less assurance of ultimate approval.

This guidance and the regulations promulgated at 40 CFR Parts 122, 123, 124 and 146 are both aimed at achieving the same fundamental objective: the protection of underground sources of drinking water from endangerment by well injection. There are, however, some significant differences between them.

The most immediate difference is that one is a regulation and the other is guidance. This was a deliberate choice on the part of the Agency because it does not view the new Congressional mandate as requiring another set of detailed regulations for its implementation. In any event, there is insufficient time to develop such regulations in light of the short time remaining before State program submissions are due under Section 1422(b)(1)(A) of the SDWA.

A further difference is that State program submissions under Section 1422(b)(1) of the SDWA are required to meet a different legal standard from State program submissions under Section 1425. Under Section 1422(b)(1)(A), the State is required to make a showing that its UIC program "meets the requirements of regulations in effect under section 1421; * * *" Under Section 1425, the State is required to demonstrate that the Class II portion of its UIC program meets the requirements of Section 1421(b)(1) (A) through (D) and represents an effective program to prevent underground injection which endangers drinking water sources.

As a consequence of these differences, this guidance is much less detailed than the regulations and leaves a great deal more discretion to the State to develop and EPA to approve State UIC programs under Section 1425.

2.0 Applications

2.1 *Definition*

For the purposes of Section 1425 of the SDWA:

1. The underground injection of brine or other fluids which are brought to the surface in connection with oil or natural gas production; and

2. Any underground injection for the secondary or tertiary recovery of oil or natural gas; and

3. Any injection for the storage of hydrocarbons which are liquid at standard temperature and pressure; shall be defined as "Class II" injections or wells.

2.2 *Need for an Underground Injection Control (UIC) Program*

Any State which has Class II wells must have an UIC program to assure that such wells do not endanger underground sources of drinking water (USDWs). A State may submit its Class II program to EPA for approval. If EPA approves the program, the State has primary enforcement responsibility for that portion of its UIC program.

If a State chooses not to apply, or if its program is disapproved, or if subsequent to approval the State loses primary enforcement responsibility because the Administrator determines, under Section 1425(c)(2), that the demonstration is no longer valid, EPA must prescribe and implement a program in that State. When EPA implements a Class II program for a State, it will do so in accordance with the requirements of 40 CFR Parts 122, 124 and 146.

A State which does *not* have any Class II wells *need not* develop a Class II control program in order to qualify for primacy under the UIC program. Under the regulations at 40 CFR 123.51(d), such a State only needs to demonstrate that Class II wells cannot legally occur until the State has developed an approved program to regulate such injections.

2.3 *Applications Under Section 1425*

Any State which has Class II wells may, at its option apply for primary for its Class II UIC program either: (1) under the regulations at 40 CFR Parts 122, 123, 124 and 146; or (2) under Section 1425 of the SDWA.

2.4 *When Should Application be Made?*

House Report No. 96-1348, accompanying the 1980 amendments, states on page 5 that: "The Committee expects that alternative demonstrations will be submitted on the same schedule. Accordingly, as demonstrations required for state programs meeting Federal regulations promulgated under Section

...1(b)." States have 270 days from July ...80 to submit applications, or until *20, 1981.*

This period may be extended by up to another 270 days by the Regional Administrators for "good cause", or until *January 15, 1982.*

A State need not wait until it is ready to submit its application for all classes of wells. EPA will entertain partial applications for primacy as long as the program for which approval is sought covers: (1) all elements of a program to regulate a particular class or classes of injection practices even if the class or classes involve the jurisdiction of more than one State agency; or (2) all elements of a program to regulate all the classes or types of wells within the jurisdiction of a single State agency. However, if a State submits a partial application, the alternative demonstration under Section 1425 may be used only for the Class II portion of the application. The portion of the program covering types of practices other than Class II will have to meet the requirements of 40 CFR Parts 122, 123, 124 and 146.

2.5 Effects of a Partial Application

The recent amendments have changed ...tion 1443 of the SDWA so that a ...s may receive grant support until ...1982. After that date, it must have achieved full primacy in order for grant eligibility to continue. As a consequence, a State may receive partial primacy for its Class II control program and continue to receive grants: (1) if it has obtained an extension for submitting the remainder of its application; (2) until it declares its intention not to file any further applications; (3) until EPA terminates its grant for cause; or (4) until July 1982, whichever is soonest.

If a State receives full primacy, its eligibility for grants will, of course, continue.

3.0 Elements of an Application for Primacy under Section 1425

3.1 Elements of a State Application

A complete State submission should contain the following elements:

a. a letter from the Governor;
b. a description of the program;
c. a statement of legal authority;
d. copies of the pertinent statutes and regulations;
e. copies of the pertinent State forms; and
f. a signed copy of a Memorandum of ...ement.

The nature of these elements is described further below.

3.2 Letter From the Governor

The letter from the Governor should:

a. request approval of the State's program for primacy under the UIC program;
b. specify whether approval is sought under Section 1425 of the SDWA or under 40 CFR Parts 122, 123, 124, and 146; and
c. affirm that the State is willing and able to carry out the program described.

3.3 Program Description

A State's application is expected to contain a full description of the program for which approval is sought, in sufficient detail to enable EPA to make the judgments outlined in Section 5 below. Such a description should:

a. Specify the structure, coverage and scope of the program;
b. Specify the State permitting process and address, to the extent applicable, the following elements:
1. Who applies for the permit or the authorization by rule;
2. Signatories required for permit application and reports;
3. Conditions applicable to permits, including: duty to comply with permit conditions, duty to reapply, duty to halt or reduce activity, duty to mitigate, proper operation and maintenance, permit actions, property rights, inspection and entry monitoring, record keeping, and reporting requirements;
4. Compliance schedules;
5. Transfer of permits;
6. Termination of permits;
7. Whether area permits or project permits are granted;
8. Emergency permits;
9. The availability and use of variances and other discretionary exemptions to programmatic requirements; and
10. Administrative and judicial procedures for the modification of permits.
c. Describe the operation of any rules used by the State to regulate Class II wells;
d. Describe the technical requirements applied to operators by the State program;
e. Include a description of the State's procedures for monitoring, inspection and requiring reporting from operators;
f. Discuss the State's enforcement program, e.g.:
1. Administrative procedures for dealing with violations;
2. Nature and amounts of penalties, fines and other enforcement tools;
3. Criteria for taking enforcement actions; and
4. If the State is seeking approval for an existing program, summary data on:
A. Past practice in the use of enforcement tools;
B. Current compliance/non-compliance with State requirements;
C. Repeat violations at the same well or by the same operator at different wells;
D. Well failure rates; and
E. USDW contamination cases based on actual field work and citizen complaints.
g. Detail the State's staffing and resources, and demonstrate that these are sufficient to carry out the proposed program;
h. If more than one State agency is involved in the Class II program, describe their relationships with regard to carrying out the Class II program;
i. Contain a reasonable schedule for completion of an inventory of Class II wells in the State;
j. Include the procedures for exempting aquifers, a list of the aquifers or portions of aquifers proposed for exemption at the time of application, and the reasons for the proposed exemptions, unless these have been described in the partial applications made by the State;
k. Contain a plan (including the basis for assigning priorities) for the review of all existing Class II wells in the State within five years of program approval to assure that they meet current non-endangerment requirements of the State (this may include permit modification and reissuance, if appropriate);
l. Describe State requirements for ensuring public participation in the process of issuing permits and modifying permits in the case of substantial changes in the project area, injection pressure or the injection horizon; and
m. Describe State procedures for responding to complaints by the public.

3.4 Statement of Legal Authority

The statement of legal authority is intended to assure EPA that the State has the legal authority to carry out the program described. It may be signed by a competent legal officer of the State, for example, the Attorney General, the Counsel for the responsible State agency, or any other officer who represents the Agency in legal matters.

The statement may, at the option of the State, consist of a full analysis of the legal basis for the State program, including case law as appropriate. Or the statement may consist of a simple certification by the legal representative that the State has adequate authority to carry out the described progam. If the State chooses to submit a certification, the program description should detail

...e legal authority on which the various ...ments of the State's program rest.

Copies of Statutes and Regulations

The application should contain copies of all applicable State statutes, rules and regulations, including those governing State administrative procedures.

3.6 Copies of State Forms

The application should contain examples of all forms used by the State in administering the program, including application forms, permit forms and reporting forms.

3.7 Memorandum of Agreement

The head of the cognizant State agency and the EPA Regional Administrator shall execute a memorandum of agreement which shall set forth the terms under which the State will carry out the described program and EPA will exercise its oversight responsibility. A copy of such an agreement signed by the Director of the State agency, shall be submitted as part of the application.

At a minimum, the memorandum of agreement should:

a. Include a commitment by the State that the program will be carried out as described and be supported by an ...propriate level of staff and resources;

... Recognize EPA's right of access to any pertinent State files;

c. Specify the procedures (e.g., notification to the State and participation by State officials) governing EPA inspections of wells or operator records;

d. Recognize EPA's authority to take Federal enforcement action under Section 1423 of the SDWA in cases where the State fails to take adequate enforcement actions;

e. Agree to provide EPA with an annual report on the operation of the State program, the content of which may be negotiated between EPA and primacy States from time to time;

f. Provide that aquifer exemptions for Class II wells be consistent with aquifer exemptions for the rest of the UIC program;

g. When appropriate, may include provisions for joint processing of permits by the State and EPA for facilities or activities which require permits from both EPA and the State under different programs; and

h. Specify that if the State proposes to allow any mechanical integrity tests other than those specified or justified in ...e program application, the Director ...notify the cognizant Regional ...ministrator and provide enough information about the proposed test that a judgment about its usefulness and reliability may be made.

4.0 Process for Approval or Disapproval of Application

4.1 Public Participation by States

Section 1425 relieves States of the responsibility to hold public hearings or afford an opportunity for public comment prior to submitting an application to EPA. Therefore, when application is made by a State under Section 1425, it may, but need not, provide an opportunity for public hearings or comments.

4.2 Complete Applications

Within 10 working days of the receipt of a final application, EPA will determine whether the application is complete or not and so notify the State in writing. If the application is found to be incomplete it will be returned to the State with specific requests for additional material or changes. However, the State may, at its option, insist that EPA complete its review of an application as submitted.

4.3 EPA Review

a. EPA has 90 days to approve or disapprove an application. If EPA finds that the application is complete, the review period will be deemed to have begun on the date the application was received in the cognizant Regional Office. If an application has been found to be incomplete and the State insists that EPA proceed with its review of the application as submitted, the review period will begin on the date that EPA receives the State's request to proceed in writing. The review period may be extended by the mutual consent of EPA and the State.

b. Within the 90-day period, EPA will request public comments and provide an opportunity for public hearing on each application. In the applying State, in accordance with 40 CFR 123.54(c) and (d). If the State has not done so, EPA will hold at least one public hearing in the State.

c. If a State's application is approved, the State shall have primary enforcement responsibility for its Class II program.

d. If a State's application is disapproved, EPA intends within 90 days of disapproval or as soon thereafter as feasible, prescribe a Class II program for the State in accordance with Section 1422(c) of the SDWA and 40 CFR Parts 122, 124 and 146.

5.0 Criteria for Approving or Disapproving State Programs

5.1 General

Section 1425 of the SDWA states that: "• • • the State may demonstrate that [the Class II] portion of the State program meets the requirements of subparagraphs (A) through (D) of Section 1421(b)(1) and represents an effective program [including adequate recordkeeping and reporting] to prevent underground injection which endangers drinking water sources."

Thus Section 1425 requires that a State, in order to receive approval for its Class II program under the optional demonstration, make a successful showing that its program meets five conditions:

a. Section 1421(b)(1)(A) requires that an approvable State program prohibit any underground injection in such State which is not authorized by permit or rule.

b. Section 1421(b)(1)(B) requires that an approvable State program shall require that:

1. The applicant for a permit must satisfy the State that the underground injection will not endanger drinking water sources; and

2. No rule may be promulgated which authorizes any underground injection which endangers drinking water sources.

c. Section 1421(b)(1)(C) requires that an approvable State program include inspection, monitoring, recordkeeping, and reporting requirements.

d. Section 1421(b)(1)(D) requires that an approvable State program apply to: (1) underground injections by Federal agencies; and (2) underground injections by any other person, whether or not occurring on property owned or leased by the United States.

e. Section 1425(a) requires that an approvable State program represent an effective program to prevent underground injection which endangers drinking water sources.

The following sections provide guidance to EPA personnel for making the required judgments with respect to these five conditions in the review of an application for approval under Section 1425.

5.2 Section 1421(b)(1)(A)

The question of whether a State program prohibits unauthorized Class II injections is a function of the State's statutory and regulatory authority. A determination of whether the State program meets this condition should be made from a review of the coverage and scope of the program, the statement of

legal authority submitted by the State, ...d of the statutes and regulations ...nselves. One important ...sideration is whether the State has ...n appropriate formal mechanism for modifying permits in cases where the operation has undergone significant change.

5.3 Section 1421(b)(1)(B)

The determination of whether a State program is adequate in requiring that the applicant demonstrate that the proposed injection will not endanger drinking water sources turns on two elements: (1) whether the State program places on the applicant the burden of making the requisite showing; and (2) the extent of the information the applicant is required to provide as a basis for the State agency's decision. Whether the burden of making the requisite showing is on the applicant should be determined from the State's description of its permitting process. If the necessary information is available in State files, the Director need not require it to be submitted again. However, as a matter of principle, the applicant should not escape ultimate responsibility for assuring that the information about his operation is accurate and available. One consideration in this regard is whether ... well operator has a responsibility to ...rm the permitting authority about ...ny material change in his operation, or any pertinent information acquired since the permit application was made.

With regard to the extent of the information to be considered by the Director, the State program should require an application containing sufficiently detailed information to make a knowledgeable decision to grant or deny the permit. Such information should include:

a. A map showing the area of review and identifying all wells of public record penetrating the injection interval;

b. A tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data should include a description of each well's type, construction, date of drilling location, depth, record of plugging and/or completion, and any additional information the Director may require;

c. Data on the proposed operation, including:

1. Average and maximum daily ...ate and volume of fluids to be injected;

2. Average and maximum injection pressure; and

3. Source, and an appropriate analysis ...injection fluid if other than produced ...ter, and compatibility with the receiving formation;

d. Appropriate geological data on the injection zone and confining zones including lithologic description, geological name, thickness, and depth;

e. Geologic name, and depth to bottom of all underground sources of drinking water which may be affected by the injection;

f. Schematic drawings of the surface and subsurface construction details of the system;

g. Proposed stimulation program;

h. All available logging and testing data on the well; and

i. The need for corrective action on wells penetrating the injection zone in the area of review.

There are two circumstances under which the director may require less information from the applicant. First, the Director need not require an applicant to resubmit information which is up-to-date and readily available in State files. Second, a State's application may outline circumstances or conditions where certain items of information may not be required in a specific case. Such circumstances may include situations where, based upon demonstrable knowledge available to the director about a specific operation, the Director proposes to permit that operation without requiring corrective action or alternatives to it. Examples of such circumstances are gravity or vacuum injections and injections through zones of plastic heaving shales.

Section 1421(b)(1)(B) also requires a State which authorizes Class II injections by rule to show that such rules do not allow any underground injection which endangers drinking water sources. The determination of whether the State program meets this requirement may be made from the program description, statement of legal authority, the text of the rules themselves, and the manner in which the State has administered such rules.

5.4 Section 1421(b)(1)(C)

This section of the SDWA requires that an approvable State program contain elements for inspection, monitoring, recordkeeping and reporting. The adequacy of the State program in these respects may be assessed with the use of the following criteria.

a. *Inspection.*

An approvable State program is expected to have an effective system of field inspection which will provide for:

1. Inspections of injection facilities, wells, and nearby producing wells; and

2. The presence of qualified State inspectors to witness mechanical integrity tests, corrective action operations, and plugging procedures.

An adequate program should insure that, at a minimum, 25% of all mechanical integrity tests performed each year will be witnessed by a qualified State inspector.

b. *Monitoring, Reporting and Recordkeeping.*

1. The Director should have the authority to sample injected fluids at any time during injection operation.

2. The operator should be required to monitor the injection pressure and injection rate of each injection well at least on a monthly basis with the results reported annually.

3. The Director should require prompt notice of mechanical failure or downhole problems in injection wells.

4. The State should assure retention and availability of all monitoring records from one mechanical integrity test to the next (i.e., 5 years).

5.5 Section 1421(b)(1)(D)

An approvable State program must demonstrate the State's authority to regulate injection activities by Federal agencies and by any other person on property owned or leased by the United States. The adequacy of the State's authority in these regards may be assessed on the basis of the program description and statement of legal authority submitted by the State. Such authority and the programs to carry it out must be in place at a time no later than the approval of the program by EPA. EPA will administer the UIC program on Indian lands unless the State has the authority and is willing to assume responsibility.

5.6 Section 1425(a)

In addition to the four demonstrations discussed above, Section 1425 requires a State to demonstrate that the Class II program for which it seeks approval in fact "represents an effective program to prevent underground injection which endangers drinking water sources." Among the factors that EPA will consider in assessing the "effectiveness" of a State program are: (1) whether the State has an effective permitting process which results in enforceable permits; (2) whether the State applies certain minimum technical requirements to operators by permit or rule; (3) whether the State has an effective surveillance program to determine compliance with its requirements; (4) whether the State has effective means to enforce against violators; and (5) whether the State assures adequate participation by the public in the permit issuance process.

Evidence of t... presence or absence of ground water contamination is important. However, it cannot serve as

be sole criterion of effectiveness. Not all States have collected such evidence systematically. More importantly, the absence of evidence of contamination, especially if based on an absence of complaints, is not necessarily proof that ground water contamination has not occurred.

Each of the five factors named above is discussed further in the following subsections. In its review of these factors, EPA is not necessarily looking for a minimum set or even any particular elements. The effectiveness of a State program will be assessed by reviewing the State's entire program. The absence of even an important element in a State program may not by itself mean that the program is ineffective as long as there is a credible program for detecting and eliminating injection practices which allow any migration which endangers drinking water sources.

a. *Permitting Process.*

Section 3.3b of the Program Description outlines the major elements of the permitting process. The listing of these considerations should not be viewed as Federally imposed minimum policy, but rather as an outline of the information which will be necessary for EPA to evaluate the effectiveness of the State's permitting process.

States may deal with permitting considerations, such as limitations on the transfer of permits, in a variety of ways. There are many permitting approaches which may be equally effective. EPA's review will turn on whether the permitting process, taken as a whole, represents an effective mechanism for applying appropriate and enforceable requirements to operators.

b. *Technical Criteria.*

Any approvable State program should have the authority to apply, by permit or rule, certain technical requirements designed to prevent the migration of injected or formation fluids into USDW's. Any State program adopting the language of 40 CFR 146 should be considered approvable on its face value for that portion of the program to which it applies. State applications not relying on the language of 40 CFR 146 should be reviewed for the presence and adequacy of the following kinds of technical requirements in the State program.

1. *Siting.*

Siting requirements should be considered in the placement and construction of any Class II disposal well. Such requirements should be designed to assure that disposal zones are hydraulically isolated from underground sources of drinking water (USDW's). Such isolation may be shown through information supplied by the applicant, or data, on file with the State, which would be analyzed by qualified State staff.

2. *Construction.*

A. Effective programs should require all newly drilled Class II wells to be cased and cemented to prevent movement of fluids into USDWs. Specific casing and cementing requirements should be based on:

i. the depth to the base of the USDW;

ii. the nature of the fluids to be injected; and

iii. the hydrologic relationship between the injection zone and the base of the USDW.

B. All newly converted Class II wells should be required to demonstrate mechanical integrity.

3. *Operation.*

A. Adequate operating requirements should establish a maximum injection pressure for a well which assures that the pressure in the injection zone during injection does not initiate new fractures or propagate existing fractures in the confining zone. Limitations on injection pressure should also preclude the injection from causing the movement of fluids into an underground source of drinking water.

Acceptable methods for establishing limitations on injection pressures include:

i. Calculated fracture gradients;

ii. Injectivity tests to establish fracture pressure; or

iii. Other compelling geologic, hydrologic or engineering data.

B. An effective State program should have the demonstrated ability to detect and remedy system failures discovered during routine operation or monitoring so as to mitigate endangerment to USDWs.

4. *Plugging and Abandonment.*

Plugging and abandonment requirements should be reviewed for the presence of the following elements:

A. That appropriate mechanisms are available in the State program to insure the proper plugging of wells upon abandonment;

B. That all Class II wells are required, upon abandonment, to be plugged in a manner which will not allow the movement of fluids into or between USDWs; and

C. That operators are required to maintain financial responsibility in some form, for the plugging of their injection wells.

5. *Area of Review.*

An effective State program is expected to incorporate the concept of an area of review defined as a radius of not less than ¼ mile from the well, field, or project.

Alternatively, a State program may substitute a concept of a zone of endangering influence in lieu of this fixed radius. The zone of endangering influence should be determined for the estimated life of the well, field, or project through the use of an appropriate calculation, formula, or mathematical model that takes the relevant geologic, hydrologic, engineering and operational features of the injection well, field or project into account.

6. *Corrective Action.*

An approvable State program is expected to include the authority to require the operator to take corrective actions on wells within the area of review or zone of endangering influence.

A. Corrective action may include any of the following types of requirements:

i. recementing;

ii. workover;

iii. reconditioning; or

iv. plugging or replugging.

B. A State program may provide the Director the discretion to specify the following types of requirements *in lieu* of immediate corrective action:

i. Permit conditions which will assure a negative hydraulic gradient at the base of USDW at the well in question;

ii. Monitoring program (i.e., monitoring wells completed to the base of USDW within the zone of influence); or

iii. Periodic testing to determine fluid movement outside the injection interval at other wells within the area of review.

However, if monitoring or testing indicate the potential endangerment of any USDW, corrective action shall be required.

C. In cases where the Director has demonstrable knowledge of geologic, hydrologic, or engineering conditions, specific to a given operation, which assure that wells within the zone of endangering influence or area of review will not serve as conduits for migration of fluids into an USDW, a State program may provide the Director the discretion to permit a specific operation without requiring corrective actions or any of the alternatives specified in Subsection (B) above. Examples of such circumstances are gravity or vacuum injections and injections through zones of plastic heaving shales. However, under the statute the State program may, in no circumstances, authorize an injection which endangers drinking water sources.

7. *Mechanical Integrity.*

An approvable State program is expected to require the operator to demonstrate the mechanical integrity of a *new* injection well prior to operation and of *all* injection wells periodically, at least once every five years. For the purpose of assessing the State's mechanical integrity requirements:

An injection well has mechanical integrity if:

i. there is no significant leak in the casing, tubing or packer; and

ii. there is no significant fluid movement into an underground source of drinking water through vertical channels adjacent to the well bore.

B. The following tests are considered to be acceptable tests to demonstrate the absence of significant leaks:

i. a pressure test with liquid or gas;

ii. the monitoring of annulus pressure in those wells injecting at a positive pressure, following an initial pressure test; or

iii. all other tests or combinations of tests considered effective by the Director.

C. The following are considered to be acceptable tests to demonstrate the absence of significant fluid movement in vertical channels adjacent to the well bore:

i. cementing records (they need not be reviewed every five years);

ii. tracer surveys;

iii. noise logs;

iv. temperature surveys; or

v. any other test or combination of tests considered effective by the Director.

D. If the State program allows or specifies alternative tests under B(iii) or C(v) above, the program description should supply sufficient information so that the usefulness and reliability of such tests in the proposed circumstance may be assessed.

c. *Surveillance.*

The demonstration of an effective surveillance program has already been discussed in Section 5.4 above.

d. *Enforcement.*

A State's enforcement of its program is a crucial consideration in making the judgment of whether the State program is effective. States have used a number of enforcement tools to shift the economic incentive of operation more toward compliance with the law. Often State programs have employed civil penalties and, for repeat or willful violators, criminal fines or jail sentences. Other commonly used practices are administrative orders and court injunctions. In the area of oil and gas regulation, many States have found pipeline severance a powerful tool. In assessing a State's enforcement program, EPA will consider not whether a State has all or any particular enforcement tools but whether the State's program, taken as a whole, represents an effective enforcement effort. Certainly, there are many enforcement matrices which create effective programs. In addition, EPA will look at whether the State has exercised its enforcement authorities adequately in the past.

e. *Public Participation.*

One factor to be used by EPA in assessing the "effectiveness" of a State program is the degree to which it assures the public an opportunity to participate in major regulatory decisions. It is assumed that most States already have legislation that governs public participation in State decision-making and defines such processes as appeals, etc. Therefore, the following represents only a minimal list of elements that EPA will consider:

1. Public Notice of permit application:

A. The State may give such notice or it may require the applicant to give notice.

B. The method of giving notice should be adequate to bring the matter to the attention of interested parties and, in particular, the public in the area of the proposed injection. This may involve one or more of the following:

i. Posting;

ii. Publication in an official State register;

iii. Publication in a local newspaper;

iv. Mailing to a list of interested persons; or

v. Any other effective method that achieves the objective.

C. An adequate notice should:

i. Provide an adequate description of the proposed action;

ii. Identify where an interested party may obtain additional information. This location should be reasonably accessible and convenient for interested persons;

iii. State how a public hearing may be requested; and

iv. Allow for a comment period of at least 15 days.

2. The State program should provide opportunity for a public hearing if the Director finds, based upon requests, a significant degree of public interest.

A. The Director may hold a hearing of his own motion and give notice of such hearing with the notice of the application.

B. If a public hearing is decided upon during the comment period, notice of public hearing shall be given in a newspaper of general circulation. The hearing should be scheduled no sooner than 15 days after the notice.

3. The final State action on the permit application should contain a "response to comments" which summarizes the substantive comments received and the disposition of the comments.

6.0 Oversight

6.1 General

Once a Class II program is approved under Section 1425, the State has primary enforcement responsibility for such portion of its UIC program. The Class II program is a grant-eligible activity and is subject to the same EPA oversight as other portions of the UIC program (e.g., State/EPA Agreements, Mid-course Reviews, grant conditions, etc.).

6.2 Mid-Course Evaluation

EPA will conduct a mid-course evaluation of Class II programs as envisioned in 40 CFR 122.18(C)(4)(ii) and 146.25. However, *in lieu* of a special reporting requirement, additional requirements have been added to the State's annual report to EPA. Should this mechanism prove unable to provide the necessary data, a special reporting requirement may be negotiated with the primacy States at a later date.

6.3 Annual Reporting

As part of the Memorandum of Agreement, each State shall agree to submit an annual report on the operation of its Class II program to EPA. At a minimum the annual report shall contain:

a. An updated inventory;

b. A summary of surveillance programs, including the results of monitoring and mechanical integrity testing, the number of inspections, and corrective actions ordered and witnessed;

c. An account of all complaints reviewed by the State and the actions taken;

d. An account of the results of the review of existing wells made during the year; and

e. A summary of enforcement actions taken.

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