UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

19,723

DATE: JUL 27 1987

SUBJECT: Corrective Action Requirements. Ground-Water Program Guidance No. 23 (GWPG #23) UIC

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

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

122.34 = 144.12

PURPOSE

The purpose of this guidance is to clarify meanings of sections 146.07 and ~~122.44~~ 144.55 (corrective action).

GUIDANCE

The process outlined in sections 146.06, 146.07 and ~~122.44~~ 144.55 provides first for locating wells which may allow migration of fluids into underground sources of drinking water, second further discriminating which of this subset of wells may require corrective action, and third subsequently developing a plan consisting of "such steps or modifications as are necessary to prevent movement of fluids into USDWs."

In assessing this plan, the Director is instructed to consider the following criteria:

- Nature and volume of the injected fluid;
- Nature of native fluids or by-products of injection;
- Potentially affected population;
- Geology;
- Hydrology;
- History of the injection operation;
- Completion and plugging records;
- Abandonment procedures in effect at the time the well was abandoned; and
- Hydraulic connections with underground sources of drinking water.

In particular, section 146.07 paragraphs (d), (e), and (f) may influence the steps necessary in a plan to prevent migration of fluids into an USDW. For example, it may be that as a result of unique geologic and hydrologic conditions, an operator can demonstrate that improperly abandoned wells may not cause migration of fluids. Such a demonstration could cite historical practices that demonstrate such migration has not occurred. To confirm this the Director shall require monitoring. Such monitoring requirements may include frequent visual observation or a systematic monitoring program. Since the demonstration is based on practices that reflect past operations, any changes in the number of injection wells, or the pressures at which they operate, may necessitate that the Director prescribe additional safeguards such as observation of the hydrostatic level of water in wells within the area of review (where possible) or more frequent or more intensive monitoring activities.

In specifying monitoring requirements, the Director should consider the following criteria:

- Pressure of the injection zone/hydrostatic level of water in wells penetrating the injection zone
- Base of lowermost formation containing an USDW
- Depth of the injection zone
- Permeability/transmissivity of the injection zone, and the aquifers containing the USDW(s)
- Hydraulic gradient/flow direction of aquifers containing an USDW
- A density of monitoring wells sufficient to assure early detection of fluid movement, if it should occur, into an USDW
- Location of water supply wells in the vicinity.

IMPLEMENTATION

Regional offices are instructed to use this guidance in operating UIC programs where EPA has primary enforcement responsibility. They are further instructed to make this guidance available to States working towards primacy and to advise the State Director that these interpretations represent EPA policy.

FILING INSTRUCTIONS

This guidance should be filed as Ground-Water Program Guidance No. 23.

ACTION RESPONSIBILITY

For further information on this guidance contact:

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