

II. GROUND-WATER ASPECTS OF THE PERMANENT REGULATORY PROGRAM

1. Statutory Information Requirements

The statutory requirements relating to ground water are contained in Sections 507(b), 508, and 510(b) of Surface Mining Control and Reclamation Act (SMCRA) (PL95-87). These sections require that information on ground-water systems be made available from an appropriate Federal or state agency or be collected by the permit applicant. Specifically, these sections state:

Section 507(b): "The permit application shall be submitted in a manner satisfactory to the regulatory authority and shall contain, among other things . . .

(11) . . . with respect to the hydrologic regime, quantity and quality of water in surface- and ground-water systems including the dissolved and suspended solids under seasonal flow conditions and the collection of sufficient data for the mine site and surrounding areas so that an assessment can be made by the regulatory authority of the probable cumulative impacts of all anticipated mining in the area upon the hydrology of the area and particularly upon water availability: . . .

(14) . . . the location of subsurface water, if encountered, and its quality; . . .

Section 508: ... (a) Each reclamation plan * * * shall include . . . a statement of . . . (13) a detailed description of the measures . . . to assure the protection of: (C) the quantity of surface- and ground-water systems . . .

Section 510(b): No permit or revision application shall be approved unless the application affirmatively demonstrates and the regulatory authority finds in writing on the basis of the information set forth in the application or from information otherwise available which will be documented in the approval and made available to the applicant that . . .

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(3) the assessment of the probable cumulative impact of all anticipated mining in the area on the hydrologic balance specified in Section 507(b) has been made by the regulatory authority, and the proposed operation thereof has been designed to prevent material damage to the hydrologic balance outside the permit area; . . .

(5) The proposed surface coal-mining operation, if located west of the hundredth meridian west longitude, would—

(A) not interrupt, discontinue, or preclude farming on alluvial valley floors . . .

(B) not materially damage the quantity or quality of water in surface- or underground-water systems that supply these valley floors . . .

2. Regulatory Information Requirements

The statutory requirements of Sections 507 (b), 508, and 510 (b) of SMCRA have been incorporated in the Permanent Regulatory Program Regulations (September 26, 1983) at 30 CFR 780.21, 816.41, 784.14, and 817.41. Sections 780.21 and 816.41 deal with surface mining, and 784.14 and 817.41 deal with underground mining.

Both Sections 780.21(b) and 784.14(b) require that the application for a surface coal-mine permit shall include the following baseline hydrologic information and any additional information required by the regulatory authority.

(1) Ground-water information. The location and ownership for the permit and adjacent areas of existing wells, springs, and other ground-water resources, seasonal quality and quantity of ground water, and usage. Water quality descriptions shall include, at a minimum, total dissolved solids or specific conductance corrected to 25°C, pH, total iron, and total manganese. Ground-water quantity descriptions shall include, at a minimum, approximate rates of discharge or usage and depth to the water in the coal seam and each water-bearing stratum above and potentially impacted stratum below the coal seam. . . .

(i) Ground-water monitoring plan. (1) The application shall include a ground-water monitoring plan . . . and the analysis of all baseline hydrologic, geologic, and other information in the permit application. The plan shall provide for the monitoring of parameters that relate to the suitability of the ground water for current and approved postmining land uses and to the objectives for protection of the hydrologic balance set forth in paragraph (g) of this section. It shall identify the quantity and quality parameters to be monitored, sampling frequency, and site locations. It shall describe how the data may be used to determine the impacts of the operation upon the hydrologic balance. At a minimum, total dissolved solids or specific conductance corrected to 25°C, pH, total iron, total manganese, and water levels shall be monitored and data submitted to the regulatory authority at least every 3 months for each monitoring location. The regulatory authority may require additional monitoring.

Sections 816.41 and 817.41 dealing with hydrologic-balance protection relating surface mining and underground mining activities, respectively, require as follows:

(b) . . . (1) Ground-water quality shall be protected by handling earth materials and runoff in a manner that minimizes acidic, toxic, or other harmful infiltration to ground-water systems and by managing excavations and other disturbances to prevent or control the discharge of pollutants into the ground water.

(2) Ground-water quantity shall be protected by handling earth materials and runoff in a manner that will restore the approximate pre-mining recharge capacity of the reclaimed area as a whole, excluding coal mine waste disposal areas and fills, so as to allow the movement of water to the ground-water system.

(c) Ground-water monitoring. (1) Ground-water monitoring shall be conducted according to the ground-water monitoring plan approved under 780.21(i) of this chapter. The regulatory authority may require additional monitoring when necessary.

(2) Ground-water monitoring data shall be submitted every 3 months to the regulatory authority or more frequently as prescribed by the regulatory authority. Monitoring reports shall include analytical results from each sample taken during the reporting period. When the analysis of any ground-water sample indicates noncompliance with the permit conditions, then the operator shall promptly notify the regulatory authority and immediately take the action provided for in 773.17(e) and 780.21(h) of this chapter.

(3) Ground-water monitoring shall proceed through mining and continue during reclamation until bond release. Consistent with the procedures of 774.13 of this chapter, the regulatory authority may modify the monitoring requirements, including the parameters covered and the sampling frequency, if the operator demonstrates, using the monitoring data obtained under this paragraph, that—

(i) The operation has minimized disturbance to the hydrologic balance in the permit and adjacent areas and prevented material damage to the hydrologic balance outside the permit area; water quantity and quality are suitable to support approved postmining land uses; and the water rights of other users have been protected or replaced; or

(ii) Monitoring is no longer necessary to achieve the purposes set forth in the monitoring plan approved under 780.21(i) of this chapter.

(4) Equipment, structures, and other devices used in conjunction with monitoring the quality and quantity of ground water on site and offsite shall be properly installed, maintained, and operated and shall be removed by the operator when no longer needed.