



Ohio Administrative Code

Rule 1501:9-7-09 Operation, monitoring, reporting, and recordkeeping of solution mining projects.

Effective: November 26, 1982

(A) The following provisions shall apply to the operation of all solution mining projects and shall be considered as permit conditions.

(1) A solution mining project may not commence injection until construction is complete, and

(a) The permittee has submitted notice of completion of construction to the chief, and

(b) The chief has inspected or otherwise reviewed the new project and finds it is in compliance with the conditions of the permit; or

(c) The permittee has not received notice from the chief of his intent to inspect or otherwise review the new project within fourteen days of the date of the notice in paragraph (A)(1)(a) of this rule, in which case prior inspection or review is waived and the permittee may commence injection. The chief shall include in his notice a reasonable time period in which he shall inspect the well.

(2) A well completion record in accordance with section 1509.10 of the Revised Code and Chapter 1501:9-7 of the Administrative Code shall be filed with the division within thirty days after completion of each solution mining injection or withdrawal well.

(3) Except during well stimulation, injection pressure at the wellhead shall be calculated so as to assure that the pressure in the injection zone during injection does not initiate new fractures or propagate existing fractures in the injection zone. In no case shall injection pressure initiate fractures in the confining zone or cause the migration of injection or formation fluids into an underground source of drinking water.

(4) Injection between the outermost casing protecting underground sources of drinking water and the well bore is prohibited.



(5) Prior to granting approval for the operation of a solution mining project, the chief shall consider the following information:

- (a) All available logging and testing data on the well;
- (b) A satisfactory demonstration of mechanical integrity for all new wells;
- (c) The anticipated maximum pressure and flow rate at which the permittee will operate;
- (d) The results of the formation testing program;
- (e) The actual injection procedures; and
- (f) The status of corrective action on defective wells in the area of review.

(B) The following provisions shall apply to the monitoring of all solution mining projects.

(1) The nature of injected fluids shall be monitored quarterly to yield representative data on its characteristics. Whenever the injection fluid is modified to the extent that the analysis required by paragraph (G)(4)(b)(iii) of rule 1501:9-7-07 of the Administrative Code is incorrect or incomplete, a new analysis shall be provided to the chief.

(2) Injection pressure, flow rate, and the volume of fluids injected and withdrawn shall be monitored on a semi-monthly basis unless daily metering and recording of injected and produced fluid volumes is monitored.

(3) Fluid level in the injection zone shall be monitored semi-monthly, where appropriate.

(4) Monitoring wells required by paragraph (A)(11) of rule 1501:9-7-08 of the Administrative Code shall be monitored quarterly.

(5) Solution mining projects may be monitored on a field or project basis, rather than an individual well basis, by manifold monitoring when such projects consist of more than one injection well,



operating with a common manifold.

(6) Any anomalous condition, including a rate or pressure variation, shall be reported to the chief immediately.

(7) Monitoring and records.

(a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(b) The permittee shall retain records of all monitoring information, including all calibration and maintenance records, all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the application or the permit for a period of at least three years from the date of the sample, measurement, report, or application. This period may be extended by request of the chief at any time.

(c) Records of monitoring information shall include:

(i) The date, exact place, and time of sampling or measurements;

(ii) Names of any individuals who performed the sampling or measurements;

(iii) The dates on which analyses were performed;

(iv) Names of any individuals who performed the analyses;

(v) The analytical technique or methods used; and

(vi) The results of such analyses.

(8) Signatory requirement. All applications, reports, or information submitted to the chief shall be signed and certified as stated in paragraph (D)(3) of rule 1501:9-7-07 of the Administrative Code.



(9) Reporting requirements.

(a) Planned changes. The permittee shall give notice to the chief, as soon as possible, of any planned physical alterations or additions to the permitted facility.

(b) Anticipated noncompliance. The permittee shall give advance notice to the chief of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.

(c) Compliance schedules. Reports of compliance or noncompliance with or any progress reports on interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than fourteen days following each schedule date.

(10) The chief shall require additional monitoring, including construction of monitoring wells, in areas subject to subsidence.

(C) Reporting requirements. All reports required by this paragraph must be signed as stated in paragraph (D)(3) of rule 1501:9-7-07 of the Administrative Code. Monitoring may be reported on a project or field basis rather than an individual well basis when manifold monitoring is used. Reporting requirements shall include:

(1) Quarterly reporting to the chief on all required monitoring;

(2) Results of mechanical integrity and any other periodic test required by the chief reported with the first quarterly report after completion of the test; and

(3) Volume relationship or withdrawal-injection ratios reported annually.

(4) Twenty-four-hour reporting.

(a) The permittee shall report to the chief any noncompliance that may endanger health or the environment. Any information pertinent to the noncompliance shall be reported to the chief within twenty-four hours after the time the permittee becomes aware of the circumstances. A written



submission shall also be provided within five days of the time the permittee becomes aware of the circumstances and shall contain a description of the noncompliance and its cause, the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

(b) The following additional information must be reported within the twenty-four-hour period provided above:

(i) Any monitoring or other information that indicates that any contaminant may cause an endangerment to an underground source of drinking water.

(ii) Any noncompliance with a permit condition or malfunction of the injection system that may cause fluid migration into or between underground sources of drinking water.

(5) The permittee shall report annually on the surveying of the monument grid used to detect ground surface movement.

(6) Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraph (C)(5) of this rule at the time quarterly reports are submitted.

(7) Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in permit application or in any report to the chief, it shall immediately submit such facts or information.

(D) Recordkeeping requirements. The permittee shall keep complete and accurate records of the following. All records shall be made available for review upon request from a representative of the division.

(1) All monitoring required by the permit; and

(2) All periodic well tests.



(3) The permittee shall retain records of all information resulting from any monitoring activities for a period of at least three years from the date of the sample or measurement. This period may be extended by request of the chief at any time.

(4) The permittee shall retain all records concerning the nature and composition of injected fluids until three years after completion of any plugging and abandonment procedures.