

**Ohio EPA RCRA AND VAP MOA Track:  
Guidance for Content of an Operation and Maintenance Plan**

When a voluntary action remedy is required to have an operation and maintenance (O&M) plan in accordance with rule 3745-300-11(E) of the Ohio Administrative Code, the volunteer must develop and implement an O&M plan that includes the following components as applicable, for each of the remedial activities subject to the O&M plan:

1. **General Description of Remedial Activities** - A summary of the applicable standards for the property and the purpose of the remedial activities, including a description of how the remedial activities will be utilized to meet and/or maintain applicable standards;
2. **Plan for Normal Operation and Maintenance** - A description of tasks that will be done to implement the normal operation and maintenance of the remedial activities, including, but not limited to:
  - a. A description of the tasks for operation of the remedial activities;
  - b. A description of the tasks and procedures for maintaining the remedial activities, including but not limited to a plan for periodic preventive measures;
  - c. A description of prescribed treatment or operating conditions for the remedial activities; and
  - d. Schedules for implementing remedial activities and for operation and maintenance tasks.
3. **Plan for Evaluating the Effectiveness of the Remedial Activities** - This plan must include, at a minimum, the following:
  - a. The purpose and objective of the activities planned to evaluate the effectiveness of the remedy;
  - b. A description of the activities that will be performed to determine the effectiveness of the remedial activities in meeting or maintaining compliance with applicable standards;
  - c. A description of the activities that will be performed to evaluate or confirm assumptions and predictions of a property-specific risk assessment conducted in accordance with rule 3745-300-09 of the Administrative

Code, if a property-specific risk assessment was conducted;

- d. A description of the activities that will be conducted, to comply with the response requirements for critical resource ground water in accordance with paragraphs (E)(2)(a)(ix), (E)(2)(c)(x), (E)(3)(a)(ix), or (E)(3)(c)(x) of rule 3745-300-10 of the Administrative Code, as applicable; and
  - e. If data collection, field testing, sampling or data analyses activities are appropriate for the monitoring activities, a summary of these procedures developed in accordance with paragraph (F) of rule 3745-300-07 of the Administrative Code;
  - f. A description of the anticipated length and planned frequency of each monitoring activity that will be performed to evaluate the effectiveness of the remedial activities.
4. Equipment Requirements - A description of equipment required to operate and maintain the remedial activities, including:
- a. A description of the monitoring and remedial equipment that has been or will be installed, and the criteria for installation; and
  - b. A schedule for the maintenance and replacement of monitoring and remedial equipment, as appropriate for each remedial activity.
5. Plan for Adjustments to Normal Operation and Maintenance - A description of reasonably anticipated adjustments and criteria establishing when the adjustments will be taken, to normal operation and maintenance of the remedial activities so that the remedial activities remain effective. Examples of adjustments that may be necessary to maintain the effectiveness of a remedial activity, but which may not be within the scope of normal operation and maintenance, include changing the pumping rates of pumps installed in water extraction wells being used to control ground water gradient, or the installation of additional wells or larger pumps to achieve gradient control.
6. Plan for Addressing Potential Problems with the Remedial Activities - This plan must include, at a minimum, the following:
- a. A description and analysis of the potential operating and maintenance problems with the remedial activities;
  - b. A description of the means for detecting the problems with the remedial activities, including but not limited to the schedule for periodic inspection

of each remedial activity;

- c. A description of reasonably anticipated activities that will be conducted and equipment utilized to correct potential problems with the remedial activities, including but not limited to the reasonably anticipated inspection responses and repair methods, and the criteria for implementing the contingency plans; and
  - d. A contingency plan that details the measures that will be taken to maintain the property's compliance with applicable standards and protection of public health and safety and the environment until normal operation or maintenance of the remedial activities is restored.
7. Plan for an Alternate or a Modified Remedy - To avoid the need for future modifications to an approved O&M plan or agreement, the O&M plan may include a contingency plan detailing the measures that will be taken to implement an alternate remedy, or modify an existing remedy, to maintain the property's compliance with applicable standards and protection of public health and safety and the environment. The contingency plan must detail the criteria that triggers its implementation and must not delay a timely completion of remedial activities. The contingency plan must provide for a criterion that triggers either or both:
- a. The implementation of a predetermined alternate or modified remedy (the predetermined remedy would need to be detailed using the O&M plan components contained within this guidance document); or
  - b. The expeditious submittal (within a specified time line) of a proposed remedial work plan, detailing the alternate remedy or the modification to the existing remedy, and providing a time line for implementation that accounts for the latest information about conditions at the property. The proposed remedial work plan would be subject to Ohio EPA review and approval.
8. Records and Reporting - The O&M plan must contain a description of all records that will be kept for the purpose of documenting that all activities/requirements of the O&M plan are met. At least once annually following issuance of a no further action letter, or at such other interval as agreed upon in an O&M agreement, the volunteer or other person responsible for O&M plan and agreement implementation, must submit a letter, statement or report to the director, under affidavit, that includes the following:
- a. The results from all evaluation activities performed for evaluating the effectiveness of the remedial activities;

- b. A description of the activities, if any, performed under a contingency plan;
  - c. A demonstration of the performance of all remedial activities subject to the O&M plan; and
  - d. A demonstration of how compliance with applicable standards will be met or maintained, including the measures used to maintain the remedy's protectiveness of public health and safety and the environment until the property achieves compliance with applicable standards through a permanent remedy within five years, or other time frame as agreed upon by the director in an O&M agreement.
9. Plan for Termination of the Remedial Activities - This plan must include an identification and description of the data and information that will be collected to support the property-specific criteria for termination of the remedial activities subject to the O&M plan (including monitoring activities) to verify completion of the remedial activities in accordance with paragraph (D)(2) of rule 3745-300-11 of the Administrative Code. Please note that termination of any institutional controls regarding the property may not be accomplished through the O&M plan.