

July 14, 1995

MEMORANDUM

GMP #74

To: District Health Directors
District Environmental Health Managers
Office of Environmental Health Services Staff

From: Donald J. Alexander, Director
Division of Onsite Sewage and Water Services

Subject: Spray Irrigation Sewage Systems

Onsite - Spray Irrigation

This GMP addresses only spray irrigation sewage systems which can be permitted under § 2.25 C. of the Sewage Handling and Disposal Regulations. Any other spray irrigation systems must comply with all other applicable regulations and requirements of the Virginia Department of Health and the Virginia Department of Environmental Quality. Spray irrigation systems utilized under this GMP must be designed for no runoff nor discharge to streams.

GMP 74 was made allowable by interagency letters of cooperation between the Virginia Department of Health (VDH) and the Virginia Department of Environmental Quality (VDEQ). Copies of interagency letters of cooperation are present in Appendix 5 and 6.

The content of this GMP includes several aspects which relate to utilization of spray irrigation sewage systems. The contents are as follows:

- I. Administrative Aspects
- II. Application Process
- III. Soil and Site Criteria
- IV. Basic Design Criteria
- V. Plan Review
- VI. Operation and Maintenance Manual
- VII. Monitoring of Systems
- VIII. Attachments

I. Administrative Aspects

This GMP is designed to allow usage of spray irrigation sewage systems for domestic sewage with flows of less than or equal to 1000 G.P.D. design flow. These systems may be utilized for new construction or repairs of failing sewage disposal systems. For the purpose of this GMP, domestic sewage will generally be considered as wastewater from toilet flushing, bathing, hand washing, and wastes from non-commercial kitchens and laundry facilities. Utilization of spray irrigation systems for treatment and disposal of sewage from anything other than domestic sewage must comply with all other applicable regulations and requirements of the Virginia Department of Health and the Virginia Department of Environmental Quality.

GMP 74 allows installation of spray irrigation sewage systems under Section 2.25.C of the Sewage Handling and Disposal Regulations. Spray irrigation technology has been shown to be a proven technology in Virginia with experimental systems which have been installed. Installation of such systems is allowed in other states as well. Therefore, spray irrigation sewage systems utilizing Section 2.25.C do not require an approved back-up system. The criteria for installation of these systems in Virginia are contained in this GMP.

Any variances, appeals, and other administrative aspects relative to these systems will be handled under the Sewage Handling and Disposal Regulations and related requirements.

II. Application Process

Spray irrigation systems proposed to be used under GMP 74 are to be applied for at the local/district health department. The existing onsite sewage application form, along with an application attachment, will be utilized for these systems. A copy of the application attachment is present in Appendix 1.

Processing of all applications will be under jurisdiction of the local or district health department. Staff from the Office of Environmental Health Services will assist local/district staff when requested. Technical services by OEHS will be provided under aspects of GMP #17 (see Appendix 4).

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III. Soil and Site Criteria

The basic soil and site criteria which are to be applied to processing of an application for a spray irrigation sewage system are included in Appendix 2.

IV. Basic Design Criteria

Design criteria are different from other systems discussed in the Sewage Handling and Disposal Regulations. Appendix 2 contains the basic design criteria for domestic sewage spray irrigation systems.

V. Plan Review

Spray irrigation sewage disposal systems permitted under Section 2.25.C will be considered to be Type III sewage disposal systems and require formal plans and specifications to be submitted by a Professional Engineer. Plan review is to be accomplished as per procedures established in GMP 17. A copy of GMP 17 on plan review is attached in Appendix 4 for reference. It is included with this GMP so as not to cause confusion on referencing GMP numbers and possible rescinding of review procedures.

VI. Operation and Maintenance Manual

An Operation and Maintenance Manual is necessary for spray irrigation systems. These systems require more maintenance than typical onsite sewage disposal systems. An acceptable O&M Manual for the individual system installed must be submitted to the local health department prior to the issuance of the operation permit.

VII. Monitoring of Systems

Permitting of spray irrigation systems under Sections 2.25.C of the Sewage Handling and Disposal Regulations must be reported to the Division so that accurate records of permitted systems can be maintained and evaluated on a statewide basis. The number of permits issued for these systems should be

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indicated on the OEHS quarterly data report.

Owners must conduct the monitoring required in the Operation and Maintenance Manual and supply the results to the local or district health department. Minimum general monitoring requirements to be included in the O&M Manual are referenced in Appendix 3. The local or district health departments should also conduct monitoring visits of installed spray irrigation systems. Test results which do not meet the O&M parameters are to be reported to the Division so that spray irrigation system function under Section 2.25.C can be evaluated statewide.

An operational contract with a minimum of a Class IV operator must be provided.

VIII. Attachments

Appendix 1	Application Attachment for Spray Irrigation
Appendix 2	General Soil, Site and Design Criteria
Appendix 3	Monitoring
Appendix 4	Plan Review Procedure (GMP #17)
Appendix 5	VDH Interagency Letter of Agreement
Appendix 6	VDEQ Interagency Letter of Agreement

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