

**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER DIVISION**

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SUBJECT: Guidance Memo No.11- 2009

Implementation of the 2011 Issuance of the VPDES General Permit Regulation for Discharges Resulting from the Application of Pesticides to Surface Waters – VAG87

TO: Regional Directors

FROM: Melanie D. Davenport, Director, Water Division



DATE: October 26, 2011

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Summary:

The purpose of this guidance is to provide information for implementing the VPDES pesticide discharges general permit (VAG87) based on 9VAC 25-800.

Electronic Copy:

An electronic copy of this guidance in PDF format is available for staff internally on DEQNET and for the general public on DEQ's website at: <http://www.deq.virginia.gov>

Contact information:

Please contact Fred Cunningham, Office of Water Permits and Compliance Assistance, (804) 698-4285 or frederick.cunningham@deq.virginia.gov if you have any questions about this guidance.

Disclaimer:

This document is provided as guidance and, as such, sets forth standard operating procedures for the agency. However, it does not mandate any particular method nor does it prohibit any particular method for the analysis of data, establishment of a wasteload allocation, or establishment of a permit limit. If alternative proposals are made, such proposals should be reviewed and accepted or denied based on their technical adequacy and compliance with appropriate laws and regulations.

Background

The General VPDES Permit for Discharges Resulting from the Application of Pesticides to Surface Waters is established by regulation 9VAC25-800. This new VPDES general permit is for discharges from pesticides applied directly to surface waters to control pests, and/or applied to control pests that are present in or over, including near, surface waters. The general permit regulation is needed in order to comply with court ordered requirements for EPA and states to issue NPDES permits for both chemical pesticide applications that leave a residue or excess in water, and all biological pesticide applications that are made in or over, including near, waters of the United States. This new requirement is in addition to existing Federal Insecticide, Fungicide, and Rodenticide Act requirements that are implemented by the Virginia Department of Agriculture and Consumer Services under the Pesticide Control Board.

Since the Court ruling, EPA collected and analyzed data on pesticide applications, including labeling requirements, pesticide uses, best management practices employed to minimize the impact of pesticides on water quality, and existing state water quality standards for pesticides. EPA proposed a NPDES Pesticides General Permit that will be issued by them for areas where EPA remains the NPDES permitting authority and for the delegated NPDES states (like Virginia) to use in drafting their permits.

The following pesticide use patterns are covered under the General Permit per the court order for operators that apply pesticides in or near water:

1. Mosquito and other flying insect pest control
2. Weed, algae and pathogen control
3. Animal pest control
4. Forest canopy pest control

The regulation generally follows EPA's proposed pesticide general permit. However, the EPA proposed general permit was adjusted for Virginia users for clarification, flexibility and ease of implementation. The permit sets narrative limitations in the form of best management practices to minimize pesticide discharges to surface waters. These best management practices are generally implemented via the use of integrated pest management practices and good equipment maintenance. Monitoring requirements are primarily visual with procedures and schedules for equipment maintenance. Pesticide applicators are required to keep certain records that mirror recordkeeping required by the Virginia Pesticide Board. Reporting to DEQ is done in the event of a spill or leak or an adverse incident. Certain operators that exceed application area thresholds are required to keep and maintain a pesticide discharge management plan. This general permit is a new regulation.

The effective date of the general permit is October 31, 2011. The expiration date will be December 31, 2013. Permit coverage is only being issued for a 2-year period rather than the standard 5-year coverage because EPA has not yet issued the federal permit. After EPA issues their final pesticides general permit the Technical Advisory Committee will be reconvened to consider changes necessary to Virginia's permit based on the EPA final permit. The use of this 2-year permit will allow Virginia to put in place a general permit by the court required deadline and also provide a reasonable time to evaluate the federal permit to incorporate appropriate changes for the reissuance of the Virginia general permit in December 2013.

Registration for the 2011 Issuance

Operators are not required to submit a registration statement to apply for coverage under this general VPDES permit for discharges resulting from the application of pesticides to surface waters. Since there is no registration requirement, there is no fee. Permittees may obtain a copy of the permit on the agency web site.

Antibacksliding

Since this is a new permit, there are no concerns with backsliding.

Antidegradation

Antidegradation was considered in the issuance of the general permit. Coverage under the general permit is not allowed if it would result in a violation of the antidegradation policy. However, under all circumstances a pesticide application and resulting discharge are considered 'temporary' and not in violation of the antidegradation policy (including in exceptional waters). In fact, the permit regulation at 9VAC25-800-30 D 2 states that discharges resulting from the application of pesticides are temporary and allowable in exceptional waters (see 9VAC25-260-30 A 3 (b) (3)).

Issuing Coverage under the General Permit

All operators are automatically covered under the general permit. An operator is defined as any person involved in the application of a pesticide that results in a discharge to surface waters that meets either or both of the following two criteria:

1. The person has control over the financing for or the decision to perform pesticide applications that result in discharges, including the ability to modify those decisions; or
2. The person has day-to-day control of or performs activities that are necessary to ensure compliance with the permit (e.g., they are authorized to direct workers to carry out activities required by the permit or perform such activities themselves).

Therefore, there may be two operators responsible for implementation of the permit since the financier or decision maker (e.g., homeowners association; locality hiring a contractor; etc.) may not be the person actually applying the pesticide (i.e., the person having day-to-day control of meeting the terms of the permit). Both parties need to understand and be responsible for the parts of the permit that apply to them. The bottom line is that any and all operators covered under this permit are still responsible, jointly and severally, for any violation of shared responsibilities that may occur, though the Department may consider this division of responsibilities when determining the appropriate enforcement response to a violation.

Entities such as subcontractors or employees of an operator (e.g., employees of a pesticide application business) are not operators. Similarly, you are likely not an operator if, for example, you own the land, but the activities are being performed outside of your control (e.g., a public entity is spraying for mosquitoes over your property).

Authorization To Discharge

An operator's discharge resulting from the application of pesticides is not authorized under this permit in the event of any of the following:

1. The operator is required to obtain an individual VPDES permit in accordance with 9VAC25-31-170 B 3 of the VPDES Permit Regulation.
2. The discharge would violate the antidegradation policy stated in 9VAC25-260-30 of the Virginia Water Quality Standards. Discharges resulting from the application of pesticides are temporary and allowable in exceptional waters (see 9VAC25-260-30 A 3 (b) (3)).
3. The operator is proposing a discharge from a pesticide application to surface waters that have been identified as impaired by that pesticide or its degradates. Impaired waters include both impaired waters with board-adopted, EPA-approved or EPA-imposed TMDLs, and impaired waters for which a TMDL has not yet been approved, established, or imposed.

Note that currently all the impairments for pesticides are for banned substances except for copper sulfate in two reservoirs. The regulation allows the applicant to provide DEQ evidence that shows the water is no longer impaired and request coverage. DEQ CO is working with these permittees now to make this showing. Any future pesticide impairment scenarios like this would be handled through CO.

CEDS/ECM

There are no CEDS requirements or permit numbers. A list of potential operators is included in the fact sheet. We are not anticipating a lot of paperwork with this permit. Because of this it is not appropriate to require permit and compliance staff to set up a process for entering this information into ECM at this time.

This guidance is not intended to establish or change ECM requirements for PReP or Enforcement activities.

Compliance Reporting

The general permit does not contain numerical effluent limitations; therefore there are no DMRs or monthly reporting requirements. There are only reporting requirements in the case of a spill, leak or adverse incident.

Spills

The operator must report to DEQ in the event of a spill as defined by 40 CFR Part 110, 117, or 302 as soon as the operator has knowledge of the release. Within five days of the spill, the operator shall submit a written report to the DEQ regional office. The report shall contain the following information:

1. A description of the nature and location of the spill, leak, or discharge;
2. The cause of the spill, leak, or discharge;
3. The date on which the spill, leak, or discharge occurred;
4. The length of time that the spill, leak, or discharge continued;
5. The volume of the spill, leak, or discharge;
6. If the discharge is continuing, how long it is expected to continue and what the expected total volume of the discharge will be;

7. A summary of corrective action taken or to be taken including date initiated and date completed or expected to be completed; and
8. Any steps planned or taken to prevent recurrence of such a spill, leak, or other discharge, including notice of whether PDMP modifications are required as a result of the spill or leak.

Discharges reportable to the Department under the immediate reporting requirements of other regulations are exempted from this requirement. The Board may waive the written report on a case-by-case basis for reports of noncompliance if the oral report has been received within 24 hours and no adverse impact on state waters has been reported.

Adverse Incidents

The operator also has requirements to notify the DEQ regional office in the event of an adverse incident that occurs from applying pesticides on or over surface waters. An adverse incident is defined as an incident that the operator observes upon inspection or of which otherwise becomes aware, in which there is evidence that:

1. A person or non-target organism has likely been exposed to a pesticide residue; and
2. The person or non-target organism suffered a toxic or adverse effect.

The phrase "toxic or adverse effects" includes effects that occur within surface waters on non-target plants, fish, or wildlife that are unusual or unexpected as a result of exposure to a pesticide residue and may include any of the following:

1. Distressed or dead juvenile and small fishes;
2. Washed up or floating fish;
3. Fish swimming abnormally or erratically;
4. Fish lying lethargically at water surface or in shallow water;
5. Fish that are listless or nonresponsive to disturbance;
6. Stunting, wilting, or desiccation of non-target submerged or emergent aquatic plants; and
7. Other dead or visibly distressed non-target aquatic or semi-aquatic organisms (amphibians, turtles, invertebrates, etc.).

The spraying (exposure) of non-target organisms is only an 'adverse incident' if the non-target organism suffered an unusual or unexpected toxic effect.

Any adverse effects to humans (e.g., skin rashes), domesticated animals or wildlife (e.g., vomiting, lethargy) that occur either directly or indirectly from a discharge to surface waters that are temporally and spatially related to exposure to a pesticide residue are required to be reported.

If the operator observes or is otherwise made aware of an adverse incident that may have resulted from a discharge from the operator's pesticide application, the operator must immediately notify the regional office. This notification must be made by telephone within 24 hours of when the operator becomes aware of the adverse incident and must include at least the following information:

1. The caller's name and telephone number;
2. Operator's name and mailing address;

3. The name and telephone number of a contact person if different than the person providing the 24-hour notice;
4. How and when the operator became aware of the adverse incident;
5. Description of the location of the adverse incident;
6. Description of the adverse incident identified and the EPA pesticide registration number for each product that was applied in the area of the adverse incident; and
7. Description of any steps the operator has taken or will take to correct, repair, remedy, cleanup, or otherwise address any adverse effects.

If the operator is unable to notify the Department within 24 hours, notification shall be made as soon as possible and the rationale for why the notification was not possible within 24 hours shall be provided.

Reporting of adverse incidents is not required under this permit in the following situations:

1. The operator is aware of facts that clearly establish that the adverse incident was not related to toxic effects or exposure from the pesticide application.
2. The operator has been notified in writing by the Board that the reporting requirement has been waived for this incident or category of incidents.
3. The operator receives notification of an adverse incident but that notification and supporting information are clearly erroneous.
4. An adverse incident occurs to pests that are similar in kind to pests identified as potential targets.

Within five days of a reportable adverse incident, the operator must provide a written report of the adverse incident to the regional office that includes at least the following information:

1. Information that was provided with the 24 hours notification;
2. Date and time the operator contacted DEQ notifying the Department of the adverse incident, and whom the operator spoke with at DEQ, and any instructions the operator received from DEQ;
3. Location of incident, including the names of any waters affected and appearance of those waters (sheen, color, clarity, etc);
4. A description of the circumstances of the adverse incident including species affected, estimated number of individuals, and approximate size of dead or distressed organisms;
5. Magnitude and scope of the affected area (e.g., aquatic square area or total stream distance affected);
6. Pesticide application rate, intended use site, method of application, and name of pesticide product, description of pesticide ingredients, and EPA registration number;
7. Description of the habitat and the circumstances under which the adverse incident occurred (including any available ambient water data for pesticides applied);
8. If laboratory tests were performed, indicate what tests were performed, and when, and provide a summary of the test results within five days after they become available;
9. If applicable, explain why it is believed the adverse incident could not have been caused by exposure to the pesticide;
10. Actions to be taken to prevent recurrence of adverse incidents; and

11. Signed and dated in accordance with the signature requirements in Part I C 6 of the permit.

The operator shall report adverse incidents even for those instances when the pesticide labeling states that adverse effects may occur.

In addition to the 24 hour and 5 day written reports for adverse incidents, the operator is required to submit an annual adverse incident report summary due on February 10 of the following year in the event of an adverse incident. The annual report will contain:

1. Operator's name;
2. Contact person name, title, email address (where available), and phone number;
3. A summary report of all adverse incidents that occurred during the previous calendar year; and
4. A summary of any corrective actions, including spill responses, in response to adverse incidents, and the rationale for such actions.

No annual reports are necessary if there are no adverse incidents during the year. Historically, there have been very few adverse incidents resulting from pesticide applications. Therefore, 24 hour, 5 day and annual reports will be rare. The report should be submitted to the compliance manager.

Threatened and Endangered Species or Critical Habitat Adverse Incident

In addition to the reporting of adverse incidents to the DEQ regional office, the operator has additional reporting requirements to the Department of Game and Inland Fisheries, National Marine Fisheries Service, U.S. Fish and Wildlife Service and Virginia Department of Agriculture and Consumer Services when a threatened or endangered species or critical habitat is affected. The agency that the operator is required to contact depends on the species affected. The fact sheet contains a list of species, critical habitat and links to the agency web sites that contain this information.

PREP

When there are pollution incidents related to any pesticide application, the Pollution Response Program will receive the call and respond as generally described in Guidance Memorandum #05-2007 PREP Manual. The PREP staff will need to make a judgment of whether or not the incident is related to any of the following pesticide use patterns requiring coverage under the General Permit:

1. Mosquito and other flying insect pest control
2. Weed, algae and pathogen control
3. Animal pest control
4. Forest canopy pest control

Any pollution incident reported where it appears that the pesticide application is purposefully applied to surface water in the four use categories above requires coverage under the general permit. (e.g., spraying of roadside ditches to control cattails). These pollution incidents would follow normal procedures per the

PREP Manual and assign an Incident Report number and refer to the Water Compliance Manager to determine if a follow up inspection is needed. A follow up inspection should be conducted in the case of an adverse incident (see adverse incident section above) to ensure the conditions of the permit are met (e.g. Pesticide Discharge Management Plan is in place if applicable). Adverse incidents are required by the pesticide general permit to be reported by the operator.

Any 5-day written report received by PReP should also be forwarded to the Water Compliance Auditor. Additionally, the PREP staff should contact VDACS Office of Pesticide Services Enforcement Supervisor (804-371-6560) to notify them of the adverse incident and to let VDACS know if we are following up with an inspection to determine compliance with the pesticide general permit.

If a fish kill has occurred that appears related to the reported incident, PReP should follow the fish kill procedures contained in the PReP manual.

Inspections

The inspector will follow up at the place of business or contact location and check to see that the proper records are in place. These records must be accurate, complete, and sufficient to demonstrate compliance with the conditions of this permit. The operator can rely on records and documents developed for other obligations, such as requirements under FIFRA and state or local pesticide programs, provided all requirements of this permit are satisfied. The inspector will look for the following records:

1. A copy of any adverse incident reports.
2. The operator's rationale for any determination that reporting of an identified adverse incident is not required consistent with allowances identified in Part I D 2 b of the permit.
3. Any corrective action documentation per Part I D 1 c of the permit.
4. Operators exceeding the annual thresholds¹ must also maintain a Pesticide Discharge Management Plan (PDMP – see below).

In addition, any operator applying pesticides (a pesticide applicator) and exceeding the annual application thresholds¹ must also maintain a record of each pesticide applied. This shall apply to both general use and restricted use pesticides. The records should have been assembled no later than 30 days following the completion of any pesticide application and are retained for at least three years. These records shall contain the following:

1. Name, address, and telephone number of customer and address or location, if different, of site of application;
2. Name and VDACS certification number of the person making the application or certification number of the supervising certified applicator;
3. Day, month, and year of application;
4. Type of plants, crop, animals, or sites treated and principal pests to be controlled;

¹ Annual (calendar year is recommended) application thresholds established in 9VAC25-800-30 C:
6,400 acres in or over water of treatment area for mosquito, flying insect and forest canopy pest control
80 acres in or over water of treatment area for weed, algae, pathogen or animal pest control
20 linear miles at water's edge for weed, algae, pathogen or animal pest control

5. Acreage, area, or number of plants or animals treated;
6. Brand name or common product name;
7. EPA registration number;
8. Amount of pesticide concentrate and amount of diluting used, by weight or volume, in mixture applied; and
9. Type of application equipment used.

The operator is required to make available to the inspector all records kept under this permit upon request and provide copies of such records, upon request.

Following the records review the inspector may determine that it is appropriate to inspect the incident site to document the extent of environmental damage and permit noncompliance.

Pesticide Discharge Management Plan (PDMP)

Any operator applying pesticides and exceeding the annual treatment area thresholds¹ must prepare a PDMP for the pest management area. The plan must be kept up-to-date even if discharges subsequently fall below the annual treatment area thresholds during the term of the permit. The operator who knows they will exceed the annual treatment area thresholds shall develop a PDMP prior to the first pesticide application covered under the permit. Operators who do not know until after commencement of discharge that they will exceed an annual treatment area threshold for that year must have a PDMP prior to exceeding an annual treatment area threshold.

Operators commencing discharge in response to a declared pest emergency situation as defined in 9VAC25-800-10 that will cause the operator to exceed an annual treatment area threshold must have a PDMP no later than 90 days after responding to declared pest emergency situation.

The PDMP documents how the operator will implement the effluent limitations in Parts I A 1 and I A 2 of the permit, including the evaluation and selection of control measures to meet those effluent limitations and minimize discharges. In the PDMP, the operator may incorporate by reference any procedures or plans in other documents that meet the requirements of this permit. If other documents are being relied upon by the operator to describe how compliance with the effluent limitations in this permit will be achieved, such as a pre-existing integrated pest management (IPM) plan, a copy of any portions of any documents that are being used to document the implementation of the effluent limitations shall be attached to the PDMP. The control measures implemented must be documented and the documentation must be kept up to date.

The PDMP must include the following elements:

1. Pesticide discharge management team.
2. Pest management area description.
3. Control measure description.
4. Schedules and procedures to comply with the effluent limitations in Part I A 1 of the permit
 - a. Application rate and frequency procedures.
 - b. Spill prevention procedures.
 - c. Pesticide application equipment procedures.
 - d. Pest surveillance procedures.

- e. Assessing environmental conditions procedures.
5. Schedules and procedures for other actions necessary to minimize discharges:
 - a. Spill response procedures.
 - b. Adverse incident response procedures.
 - c. Pesticide monitoring schedules and procedures.
6. Signature requirements.

A PDMP template is available on DEQNET (and see link below) and can be used to determine compliance with the above items.

The operator should review the PDMP at least once per calendar year and whenever necessary to update pest problems identified or pest management strategies evaluated for the pest management area.

While not required to be submitted to or approved by the Department, interested persons can request a copy of the PDMP through the Department, at which point the Department will likely request the operator to provide a copy of the PDMP. By requiring members of the public to request a copy of the PDMP through the Department, the Department is able to provide the operators with assurance that any Confidential Business Information that may be contained within its PDMP is not released to the public. The Water Control Law states that any information, **except effluent data**, as to secret formulae, processes, or secret methods shall be kept confidential (§ 62.1-44.21). It is the responsibility of the source providing confidential information, not that of DEQ, to identify the information as confidential and seek DEQ's acquiescence in that designation. DEQ is responsible for keeping such designation confidential. It is the Department's expectation that operators can write the PDMP appropriately without including confidential business information.

Facility Changes and Termination of Coverage

Operators are not required to submit a notice of termination to terminate permit coverage under this general VPDES permit. Since there is no registration or termination process, operators do not need to notify DEQ for ownership or facility changes as required by Part III R of the permit. If there is an ownership change, one permit should be considered 'terminated' and the new owner automatically covered under a new permit. All records required by the permit should be retained by the permittee for three years after the date that coverage under the permit expires.

Other Information

The following information is available on the DEQ permits and fees web page (<http://www.deq.state.va.us/vpdes/permitfees.html#pest>), and on DEQNET:

- 2011 Pesticide Discharges General Permit (VAG87) Regulation
- 2011 Pesticide Discharges General Permit Fact Sheet
- 2011 Pesticide Discharges General Permit (VAG87)
- Pesticide Discharges General Permit PDMP Template