



## **Discharges Associated with Pesticide Applications Under the NPDES Permit Program**

### **Frequently Asked Questions (FAQ)**

#### **Background**

On October 29, 2011, the Pennsylvania Department of Environmental Protection (DEP) published notice of the availability of a final statewide general permit that provides authorization to entities with control over the decision to perform pesticide applications (i.e., Decision-Makers) to discharge under the federal National Pollutant Discharge Elimination System (NPDES) program. This permit, “PAG-15 Authorization for Coverage Under the NPDES General Permit for Point Source Discharges to Waters of the Commonwealth of Pennsylvania from the Application of Pesticides” (3800-PM-WSFR0435d), was issued in response to a 2009 decision by the U.S. Court of Appeals for the Sixth Circuit that overturned a rule exempting pesticide applications into or near bodies of water from the NPDES regulations. The court initially granted a two-year stay to give EPA time to develop a permit and educate the regulated parties. EPA filed a second motion to stay the mandate for an additional six months, which the court granted on March 28, 2011 (National Cotton Council v. EPA, 6th Cir. No. 06-4630, 3/28/11; 60 DEN A-9, 3/29/11). EPA issued its Pesticide General Permit on October 31, 2011. DEP was required to issue its own general permit because it is delegated by EPA to implement the NPDES program.

The general permit is intended to provide coverage under the Clean Water Act and Pennsylvania Clean Streams Law to operators who discharge directly to waters of the Commonwealth from the application of biological pesticides or chemical pesticides that leave a residue (collectively called pesticides), when the pesticide application is for one of the following pesticide use patterns: (1) mosquito and other flying insect pest control; (2) weed and algae pest control; (3) animal pest control; and (4) forest canopy pest control. If pesticide applications are not eligible for coverage under the general permit but otherwise exceed the thresholds where permit coverage is required, the Decision-Maker will need to apply for an individual permit. Pesticide applications that will not result in a direct discharge to waters of the Commonwealth do not need permit coverage.

This document, which has been developed in the format of a Frequently Asked Questions (FAQ) document, is intended to serve as interim guidance for DEP staff and Decision-Makers until such time that formal guidance is developed and approved.

## **What Are the Thresholds Where Permit Coverage Is Required?**

There are no thresholds for federal and state agencies in which pest management is integral to their missions, mosquito control districts, or other pest control districts (collectively “government entities”). If a government entity has decision-making authority over the application of pesticides and intends to apply pesticides for (1) mosquito and other flying insect pest control, (2) weed and algae pest control in water or at water’s edge, (3) animal pest control in water or at water’s edge, or (4) forest canopy pest control, in which the application will result in a direct discharge to waters of the Commonwealth, it must first apply for and receive coverage under the PAG-15 General Permit or an individual NPDES permit. The thresholds are determined on an annual calendar year basis.

The following thresholds exist for other entities, including private Decision-Makers and local government bodies, which decide to apply pesticides:

- For mosquito and other flying insect pest control and for forest canopy pest control, the decision to treat with an adulticide over an area of at least 6,400 acres. Each application’s treatment area should be counted; for example, if a decision is made to treat 3,200 acres twice in one calendar year, the threshold has been met.
- For weed and algae pest control and for animal pest control, the decision to treat in water an area of at least 80 acres or a length of 20 linear miles. If the same area is treated more than once during the same calendar year, it is counted only once.

These thresholds exist regardless of whether the pesticide applications are eligible for coverage under the PAG-15 General Permit (i.e., the thresholds also apply to pesticide applications within HQ or Exceptional Value (EV) watersheds that may be covered only through an individual permit).

## **What Are Examples of Federal and State Agencies That Have Zero Thresholds?**

Federal and state agencies with a responsibility to control mosquitoes, animals, forest canopy pests, weeds and algae for public health, nuisance control, animal welfare and resource management must apply for NPDES permit coverage regardless of the size of the areas that will be treated. Such agencies include, but are not limited to, Pennsylvania Department of Environmental Protection (DEP), Pennsylvania Department of Conservation and Natural Resources (DCNR), Pennsylvania Fish and Boat Commission (PFBC), U.S. Forest Service, and U.S. Fish and Wildlife Service.

Other federal and state agencies who may apply pesticides but whose missions do not include pest management are not subject to the zero threshold requirements and are treated as “other entities”. An example is the U.S. Army Corps of Engineers, who apply pesticides to control weeds on dams. Such federal and state agencies must apply for NPDES permit coverage only if the thresholds for other entities will be exceeded.

## **What Does the Term “At Water’s Edge” Mean?**

DEP developed its PAG-15 General Permit to mirror the U.S. Environmental Protection Agency’s (EPA’s) federal Pesticides General Permit. EPA did not define the term, “at water’s edge” in its General Permit, and DEP also did not. There are no specific setback requirements from surface waters for pesticide applications in federal or state statutes or regulations that would address this issue. As an interim policy, DEP recommends that pesticide applications (specifically for weed, algae and animal pest control use patterns) that occur within 100 feet of surface waters be considered “at water’s edge”, unless there is a 35-foot vegetated buffer. In other words, if the stream corridor is vegetated at a width of at least 35 feet, applications can occur up to 35 feet and not be considered at water’s edge. This is consistent with requirements for the land application of manure and agricultural process wastewater under 25 Pa. Code § 91.36(b)(2).

## **What Is a “Direct Discharge” for Pesticide Applications?**

Direct discharges for pesticide applications are applications directly to water or that occur at water’s edge. For land-based applications that will occur along water bodies, maintaining a 35-foot setback from the water body when this zone is vegetated should negate the need to apply for permit coverage, even if annual treatment area thresholds will be met or exceeded. For aerial applications, if the treatment area includes waters of the Commonwealth, it should be assumed that a direct discharge will result from the applications, and an NOI or application should be submitted if the treatment area thresholds will be met or exceeded.

## **Are Entities That Apply Pesticides Below the Thresholds Covered by the General Permit?**

DEP’s policy is that other entities who apply pesticides below the annual treatment area thresholds are automatically covered under the PAG-15 General Permit without the need to submit an NOI for coverage. Such entities must comply with the terms and conditions of the General Permit, except that DEP will not require the submission of reports. DEP may pursue regulatory changes to clarify this policy.

While other entities applying pesticides below the thresholds do not need to submit an NOI for coverage or apply for an individual permit, those entities must continue to comply with the requirements of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and must continue to receive joint approval from DEP and the PA Fish and Boat Commission for the use of chemicals required to control aquatic plants and fish populations in surface waters under 25 Pa. Code § 91.38.

## **What Are the Deadlines to Apply for Permit Coverage?**

The deadlines to apply for coverage under the PAG-15 General Permit, if eligible, and for an individual NPDES permit are as follows:

- Decision-Makers who meet the thresholds where a permit is required must submit a complete NOI or application at least 30 days before exceeding the threshold. If a timely

submission of a complete NOI or application is made, the Decision-Maker may proceed with pesticide applications when the administrative completeness letter that is issued by DEP is received by the Decision-Maker.

- Decision-Makers who will apply pesticides in response to a declared pest emergency situation in one or more of the four use patterns must apply no later than 30 days after commencement of the pesticide applications. Decision-Makers are authorized to discharge immediately in response to declared pest emergency situations.

### **When May the Application of Pesticides Begin?**

The Decision-Maker may commence the use of pesticides as indicated in the NOI or application upon receipt of an administrative completeness letter that authorizes the pesticide application activities to begin. However, if the application is directly to waters of the Commonwealth, a joint permit under 25 Pa. Code § 91.38 is also needed before commencing the activities. DEP may, in its discretion and in consultation with the PA Fish and Boat Commission (PFBC), issue a joint permit with the administrative completeness letter for a treatment area less than the NPDES thresholds. For example, if a private Decision-Maker wishes to apply an herbicide to 100 acres, the joint permit that accompanies the administrative completeness letter for the NPDES permit may authorize application to just 79 acres (i.e., below the NPDES threshold of 80 acres), and will be effective for one calendar year. Upon issuance of the NPDES permit, a new joint permit may be authorized for the full 100 acres. Note that this does not apply to state and federal agencies that have zero thresholds.

### **What is the Length of Permit Coverage?**

DEP approves coverage under general permits and issues individual permits for a period not exceeding 5 years. The effective term of a permit may be less than 5 years, but this is not the norm. If the Decision-Maker wishes to continue the application of pesticides after the expiration date of the permit, the Decision-Maker must submit an NOI or application at least 180 days prior to the expiration date of permit coverage.

If a joint permit is required in addition to the NPDES permit, the joint permit will be issued with the same effective period (term) as the NPDES permit.

### **What if Plans Change Following Receipt of an NPDES Permit?**

When DEP issues a permit, it is authorizing the use of pesticides for the use patterns, pesticides, dosages, and treatment areas identified in the application for a period of five years. The following changes must be authorized by a permit amendment prior to commencing pesticide use: 1) a change in the use pattern for a treatment area, 2) a change in the pesticide that will be used for a treatment area, 3) an increase in the total amount (dosage) of pesticide that will be used in a treatment area, 4) an increase in the treatment area, and 5) new treatment areas not included on the original NOI or application for a new permit or permit renewal. All such changes will be considered a Major Amendment by DEP, requiring a new NOI for PAG-15 General Permit coverage or a permit amendment application. To reduce the occurrence of permit

amendments, it is suggested that applicants report all potential pesticide treatment areas for the next five years. Authorization for all such areas as part of a new permit or permit renewal will help minimize requests for amendments during the permit term.

### **Can a Decision-Maker Include Multiple Use Patterns on the Same NOI or Application?**

Yes. Decision-Makers may include all anticipated pesticide use patterns on the same application that are eligible for coverage under the appropriate permit. For example, a state agency Decision-Maker intends to spray 10,000 acres of forest canopy during a calendar year and also 100 acres of water for algae control. The water is a lake that is classified as a High Quality Cold Water Fishery (HQ-CWF), while the forest treatment area is in a CWF watershed. The algae control use pattern may not be reported on the same NOI form as the forest canopy spraying, as the algae control use pattern would be subject to an individual permit. In such cases, DEP recommends that one individual permit application be submitted to cover both activities.

### **Can a Decision-Maker Include All Anticipated Spray Activities on the Same NOI or Application Regardless of Location?**

Yes. To reduce paperwork, DEP will allow a Decision-Maker to combine all anticipated pesticide applications, anywhere in Pennsylvania, on the same NOI or application, and DEP may issue permit coverage. Maps and other documentation submitted with the NOI or application must clearly identify all proposed activities for which coverage will be authorized. Similar to the answer above, only those applications that are eligible for the PAG-15 permit may be combined and reported on an NOI for general permit coverage. DEP prefers to issue one permit to the same entity for pesticide applications, and therefore if an entity's pesticide activities will include both HQ/EV watersheds and non-HQ/EV watersheds, the entity should combine all activities into one individual permit application.

### **What If Part of a Watershed is HQ/EV Where Spraying Will Occur, and the Other Part Is Not?**

Assuming the pesticide application(s) will meet the thresholds, the Decision-Maker will need to submit an individual permit application to cover both portions of the watershed.

### **What If the Applicator Listed on the NOI or Application Will Change?**

A new NOI or amendment application is not necessary if the Applicator listed on the original NOI or application changes. However, it is recommended that annual reports include information on such changes.

### **What Forms Should Be Used to Apply for an Individual NPDES Permit for Pesticides?**

DEP has developed individual pesticide permit application forms – see document IDs 3800-PM-BPNPSM0025a-e, available on DEP's website.

### **Must DEP Consider Anti-Degradation in HQ/EV Watersheds?**

Yes. The individual permit application includes an anti-degradation module (3800-BPNPSM-0025e) that applicants must complete for each treatment area in an HQ or EV watershed referenced on the permit application. Applicants must include documentation of its decision-making, including a consideration of alternatives to pesticide application and the environment impacts of the pesticide application. The module will be reviewed by DEP as part of the application review process.

### **Can There Be More Than One Decision-Maker Per Treatment Area?**

Yes, but only when different pesticide use patterns are employed. In such cases the Decision-Makers should submit separate applications.

### **How Does DEP Consider the Scenario Where There are Multiple Decision-Makers and Treatment Areas Per Water Body?**

DEP will consider each Decision-Maker's treatment area(s) distinctly except where the total (combined) treatment area for all Decision-Makers will (1) exceed NPDES thresholds and (2) meet or exceed 50% of the area of the water body. If the 50% threshold is met, an NOI or individual permit application will need to be submitted jointly by the Decision-Makers, and DEP will issue one permit to all Decision-Makers as co-permittees. For example, if four Decision-Makers each plan to treat 20 acres of a 160-acre lake, the total treatment area of 80 acres within the lake would meet both of the criteria, and DEP would expect the submission of an NOI or individual permit application for NPDES permit coverage.

### **When May Agricultural Producers Applying Pesticides Need a Permit?**

The use of pesticides as part of agricultural crop production is not one of the use patterns in which an NPDES permit may be required. If producers apply pesticides for (1) mosquito and other flying insect pest control, (2) weed and algae pest control in water or at water's edge, (3) animal pest control in water or at water's edge, or (4) forest canopy pest control, submission of an application and receipt of a permit is required only if the annual treatment area thresholds will be met or exceeded. Further, agricultural stormwater and irrigation return flow are exempt from NPDES permits.

### **Do Utilities Need a Permit for Spraying Power Line Corridors for Weed Control?**

If the length of the treatment area *at water's edge* will be 20 linear miles or greater, an NOI or application must be submitted. Surface waters that flow perpendicular through the corridor should not be counted toward the annual treatment area threshold – best management practices (BMPs) should be used to minimize spraying into these waters. However, drainage swales and ditches that flow with the contour of the corridor and are hydraulically connected to surface waters, or streams that flow parallel to or within the corridor, should be counted toward the annual treatment area threshold. For example, a 50-mile corridor is planned for a weed control application event. There are 20 miles in this treatment area in which ditches and swales are

hydraulically connected to surface waters. In this case, an NOI or application must be submitted. However, if the application is done in a manner that does not lead to direct spraying into waters of the Commonwealth, which would include maintaining a setback of 35 feet or more from the waters assuming a vegetated buffer, no NPDES permit coverage is required.

### **Are Chemicals Such as Alum Subject to NPDES Permit Requirements?**

Chemicals that are applied to water for purposes other than controlling pests are not considered pesticides, and therefore are not subject to the NPDES Pesticides Permit requirements. For example, alum is a product used to control concentrations of phosphorus in water to inhibit algae growth, but itself is not an algicide. Such non-pesticides are not eligible for coverage under the PAG-15 General Permit or an individual NPDES Pesticides Permit.

### **Are Enzyme Treatments Subject to NPDES Permit Requirements?**

If an enzyme is intended to directly effect a target pest organism and the product was created for the purpose of pest control, the enzyme would be considered a biochemical pesticide and be subject to NPDES permit requirements if thresholds are exceeded. If an enzyme will not target a target pest organism directly, it would not be subject to NPDES permit requirements. For example, an enzyme that promotes decomposition of organic matter would not be subject to permit requirements.

### **How Will DEP Coordinate Permit Reviews with PA Fish and Boat Commission?**

Under 25 Pa. Code § 91.38(2), DEP and the PA Fish and Boat Commission (PFBC) must jointly approve the use of algicides, herbicides or fish control chemicals in waters of the Commonwealth. This requirement applies regardless of the amount to be used (i.e., no thresholds), and the agencies' review and approval process has operated independently of the NPDES program. Now that NPDES permit coverage is required for certain pesticide applications, coordination is important. Unless and until there is a regulatory change, the review process under Chapter 91 will need to continue.

PFBC receives permit applications, conducts a review, and forwards them to DEP for additional review. DEP will do the following upon receipt of the applications from PFBC:

1. Identify whether the application has been submitted by a government entity subject to zero thresholds. If yes, proceed to step 3, otherwise proceed to step 2.
2. Identify whether the proposed pesticide application(s) will exceed one of the treatment area thresholds (80 acres / 20 linear miles for weed and algae pest control and animal pest control). If yes, proceed to step 3, otherwise process the application as would be done normally under Chapter 91.
3. Identify whether there is a pending NPDES permit application at DEP for the same applicant or treatment. This can be done either through a review of eFACTS or a customized query made available to staff. If yes, proceed to step 4, otherwise determine whether the proposed

application has already been covered by an issued NPDES permit. This may involve a review of the NOI or application in the file. If an NPDES permit has already been issued, process the application as would be done normally under Chapter 91. If an NPDES permit has not yet been issued and an application has not been received, DEP staff will transmit a deficiency letter to the applicant, providing notification of the requirement to apply for NPDES permit coverage.

4. If a pending application for an NPDES permit is in-house, DEP staff will first process the Chapter 91 application as normal. Following this review, the application will be given to staff responsible for the NPDES permit application (if there are separate reviewers). When the NPDES permit is issued, the Chapter 91 permit will be attached and include the same effective and expiration dates as the NPDES permit. Additional comments or requirements as provided by PFBC and DEP will be included in the Chapter 91 permits where necessary.

DEP's reviews of Chapter 91 permit applications will be limited to ensuring that the pesticide applications will be protective of water supplies. All joint DEP/PFBC permits under Chapter 91 that do not exceed NPDES thresholds will contain language that the permittee must also comply with the terms and conditions of the PAG-15 General Permit. If there are downstream water supplies within 5 miles of the pesticide application, the Chapter 91 permit may include a requirement that the applicator notify the water supply prior to the pesticide application.

### **Who Will Conduct Reviews of Pesticide Permit Applications?**

DEP regional offices will conduct reviews where treatment areas are contained within the regional boundaries. For those applications that include treatment areas that include more than one region and for government entities subject to zero thresholds that have statewide activities, DEP Central Office will conduct the reviews.

### **Are Pesticide NPDES Permits Subject to Annual Fees?**

Decision-Makers that have coverage under the PAG-15 General Permit do not need to pay annual fees. Decision-Makers that have individual permits will need to pay annual fees if not exempted by 25 Pa. Code 92a.62(f). The annual fee amount is \$500 (per Chapter 92a.62(c)), and an invoice will be issued for payment approximately three months prior to the anniversary of the effective date of the permit.

### **How Should Staff Handle Pesticides Permits in DEP's Data Systems?**

Sites: in eFACTS, combine all pesticide applications listed on the NOI or application into one new Site and name it "Company ABC Pesticide Applications" or similar. Identify all municipalities and counties where applications will occur with the Site.

Primary Facilities (PFs): similar to Sites, for PFs combine all pesticide applications listed on the NOI or application into one new WPCF PF (for each client) and name it "Company ABC Pesticide Applications" or similar (the name can be the same as for the Site). Identify the largest treatment area on the NOI or application and record the municipality and county where this



treatment will occur. For PF latitude and longitude, use the coordinates reported on the NOI or application, or otherwise select the mid-point of the largest treatment area. For PF Location Address, use the PF Mailing Address. For PF SIC code, use 0851 where forest canopy control is the use pattern, 0782 where weed control is the use pattern, and 4959 where mosquito control or other use patterns are specified. Use the same permit number for the PF Other ID as for the authorization's Program ID.

Subfacilities (SFs): create Discharge Point (DP) SFs for each treatment area. Use the mid-point of the treatment area for the latitude and longitude.

Authorizations: select the Auth Codes "PAG15" for PAG-15 General Permit coverage and "IPEST" for individual NPDES permits for pesticide applications. Link all DP SFs created for the PF. For PAG15 authorizations, use a permit number sequence starting with "PAG15". For IPEST authorizations, use a number from the sequence assigned to your region for industrial waste permits, beginning with "PA0".

All PFs and authorizations must be pushed to NMS prior to issuance of the authorization in eFACTS. No permit documents are required in NMS for PAG15 authorizations, but are required for IPEST authorizations. No limits are required for either authorization in NMS. To generate permit documents, select the appropriate template from the Central Office folder in NMS.