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Clean Water Act Permitting of Discharges from Pesticide Applications

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ABSTRACT: On November 27, 2006 the U.S. Environmental Protection Agency (EPA) issued a final rule clarifying two specific circumstances in which a Clean Water Act (CWA) permit is not required to apply pesticides to or around water. They are: 1) the application of pesticides directly to water to control pests, and 2) the application of pesticides to control pests that are present over or near water, where a portion of the pesticides will unavoidably be deposited to the water to target the pests. On January 7, 2009, the U.S. 6th Circuit Court of Appeals held in *National Cotton Council et al. v. EPA* that the final rule was not a reasonable interpretation of the CWA and vacated the rule. The 6th Circuit held that CWA permits are required for all biological pesticide applications and chemical pesticide applications that leave a residue in water, when such applications are made in or over, including near, waters of the U.S. On June 8, 2009, the U.S. 6th Circuit Court of Appeals granted EPA a 2-year stay of the mandate in *National Cotton Council et al. v. EPA*. Before the ruling takes effect on April 9, 2011, EPA plans to issue a final general National Pollutant Discharge Elimination System (NPDES) permit for covered pesticide applications, to assist authorized states to develop their NPDES permits and to provide outreach and education to the regulated community. EPA estimates that the ruling affects approximately 365,000 pesticide applicators that perform 5.6 million pesticide applications annually. EPA's latest thinking on a number of issues is presented here, including who needs permit coverage for what kinds of pesticide applications, permit limits and conditions, and monitoring and reporting requirements.

KEY WORDS: Clean Water Act, permits, pesticides, regulatory actions, US EPA

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Published at Univ. of Calif., Davis. 2010. Pp. 204-207.

FEDERAL INSECTICIDE, FUNGICIDE AND RODENTICIDE ACT (FIFRA)

In the United States, pesticides must be registered according to the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) (FIFRA 2008). Before registering a new pesticide, or approving a new use for a registered pesticide, EPA must first ensure that the pesticide, when used according to label directions, can be used with a reasonable certainty of no harm to human health and without posing unreasonable risks to the environment, taking into account the economic, social, and environmental costs and benefits of the use.

CLEAN WATER ACT (CWA)

In 1972, Congress passed the Clean Water Act (CWA) to restore and maintain chemical integrity of U.S. Waters. Under the CWA, discharge of any pollutant into waters of the U.S. is prohibited, except under a National Pollution Discharge Elimination System (NPDES) permit. EPA issues NPDES permits, but most states are authorized by EPA to issue permits.

BACKGROUND – PERMITTING PESTICIDE DISCHARGES

On November 27, 2006 EPA issued a final CWA pesticides rule that stated:

“The application of a pesticide to waters of the United States consistent with all relevant requirements under FIFRA does not constitute the discharge of a pollutant that requires an NPDES permit in the following two circumstances:

1. The application of pesticides directly to waters of the U.S. to control pests. Examples of such applications include applications to control

mosquito larvae, aquatic weeds, or other pests that are present in waters of the U.S.; and

2. The application of pesticides to control pests that are present over waters of the U.S., including near such waters, where a portion of the pesticides will unavoidably be deposited to waters of the U.S. to target the pests effectively; for example when insecticides are aerially applied to a forest canopy where waters of the U.S. may be present below the canopy or when pesticides are applied over or near water for control of adult mosquitoes or other pests.”

In December 2006, petitions for review of the rule were filed in all 11 U.S. Circuit Courts. Petitions were consolidated in the 6th Circuit Court of Appeals, and on January 7, 2009 the 6th Circuit vacated the CWA pesticides rule, stating that the rule was not a reasonable interpretation of the CWA. Regarding biological pesticides, the Court stated that “biological materials” are “pollutants” under the CWA, stating all biological pesticides are pollutants because they “undeniably alter the physical integrity of the waters.” In addition, the Court considered “chemical wastes” pollutants, stating that chemical pesticides are pollutants if they leave a residue (or “waste”). On June 8, 2009, the 6th Circuit granted EPA's request and ordered a 2-year stay of the mandate (until April 9, 2011).

In August 2009, the 6th Circuit rejected industry's request for a rehearing. In November 2009, industry petitioned the Supreme Court for *Writ of Certiorari*, and on February 23, 2010 the U.S. Supreme Court denied the industry petition. As a result, EPA's rule stating that NPDES permits are not required for pesticide applications applied to or over, including near waters of

the U.S., remains in effect until April 9, 2011. As of April 10, 2011, discharges into a water of the U.S. from pesticide applications will require coverage under an NPDES permit.

CHALLENGES

Pesticide applicators are concerned that once the mandate is effective, they will become immediately subject to the requirement to have an NPDES permit and without one, they will be subject to enforcement and/or liable for citizen suits. If a pesticide applicator is required to have an NPDES permit but cannot obtain one because the permitting authority is unable to issue a timely permit, an applicator would face a difficult choice:

1. Apply the pesticide and risk being in violation of the CWA which would expose the applicator to penalties of up \$32,500 a day, or
2. Decide not to apply a pesticide, which may result in significant human health, economic, or environmental consequences.

COURSE OF ACTION

EPA is developing a Pesticide General Permit (PGP) to cover areas where EPA remains the NPDES permitting authority. EPA will work closely with the NPDES-authorized states to concurrently develop their permits. EPA and states will provide outreach and education to the regulated and environmental communities.

Two types of NPDES permits can be issued: individual permits cover a specific discharge, whereas general permits can cover multiple, similar discharges. Under a general permit, dischargers typically obtain coverage by submitting a Notice of Intent (NOI) that includes basic information specific to a particular discharge. NPDES regulations allow, in certain instances, general permit coverage without submission of an NOI.

State-issued general permits must meet all CWA requirements that the Federally-issued permit must meet but can be more stringent. Only states/tribes/territories ("states") authorized by EPA can issue NPDES permits. Whether issued by EPA or an authorized state, permits are written based on a permit writer's best professional judgment. Judgments may differ, so how each permit satisfies the CWA requirement may differ in some respects. However, EPA does maintain an oversight role for state-issued permits. If EPA determines that a specific state condition fails to satisfy a particular CWA requirement, EPA could object to that permit. Citizens have the right to challenge NPDES permits.

SCHEDULE

Figure 1 shows the schedule of activities as EPA develops and issues the pesticide general permit. EPA has been working with state water and pesticide regulators since October 2009 and is on track to announce a draft permit in April 2010 via a Federal Register Notice.

PESTICIDE GENERAL PERMIT (PGP)

Who Must Get Permit Coverage?

For the PGP, an operator is defined as any entity with a discharge resulting from a pesticide application that

meets either of the following two criteria must be covered under an NPDES permit:

1. The entity has operational control over the decision to perform pesticide applications that result in discharges, including the ability to modify those decisions, and/or
2. The entity has day-to-day operational control of activities which are necessary to ensure compliance with the permit (e.g., they are authorized to direct workers to carry out activities required by the permit).

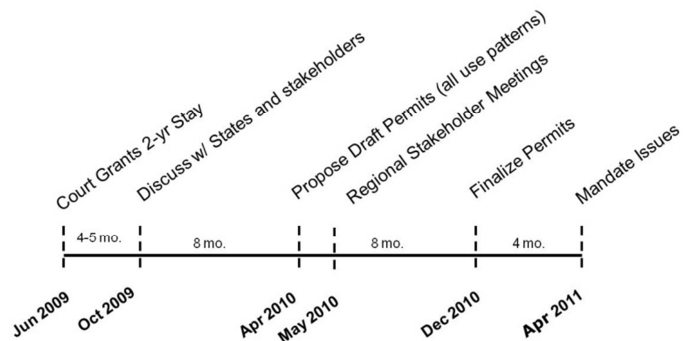


Figure 1. EPA schedule for issuing pesticide general NPDES permits.

PGP Scope

EPA is currently thinking that the following pesticide uses will be covered by the PGP:

1. Mosquito and other aquatic nuisance insect control
2. Aquatic weed and algae control
3. Area-wide and ditchbank pest control
4. Aquatic nuisance animal control.

With this scope, EPA estimates that the permit will cover ~5.6 million applications annually by 365,000 applicators, using 400+ different pesticides with ~3,500 product labels. EPA is considering whether other pesticide uses should be in PGP.

Currently outside the scope are:

1. Activities exempt from permitting under the Clean Water Act
 - a. Irrigation return flow
 - b. Agricultural storm water runoff.
2. Discharges that will require coverage under an individual permit, such as possibly:
 - a. Discharges of pesticides to water bodies that are impaired under CWA §303(d) for that discharged pesticide
 - b. Discharges to Tier 3 water bodies
 - c. Discharges from other pesticide uses not specifically eligible for coverage.

Large-scale rodenticide applications may need NPDES permit coverage, if application will be done in such a way that pesticide will unavoidably fall into surface water.

NOTICE OF INTENT (NOI)

In determining the NOI requirements for the Pesticide General Permit, EPA is taking the following considerations into account:

1. The usefulness of information in the NOI

2. The burden on regulators and the regulated entities
3. Avoiding duplicative submissions.

Currently, EPA is thinking that NOIs will be required for entities that exceed a pesticide application threshold. The threshold may be based on area treated or some other metric.

The NOI filer, in most cases, would be the entity responsible for deciding to conduct the pesticide applications, as opposed to the person performing the applications, if different. However, any applicator would need to file an NOI if the application exceeds the threshold, for applications not already covered under another NOI.

TECHNOLOGY BASED EFFLUENT LIMITS

EPA is currently planning to require that all permittees will implement basic Integrated Pest Management (IPM) practices to minimize discharges (e.g., ensuring equipment is properly calibrated and maintained). A subset of permittees will implement comprehensive IPM practices that may include identification/assessment of pest problem, assessment of pest management efficacy, and following appropriate management procedures for pesticide use.

WATER-QUALITY BASED EFFLUENT LIMITS (WQBEL)

Regulation of pesticides under both FIFRA and CWA presents challenges. The two statutes share the goal of protecting water quality but have different requirements, different legal standards, and different risk assessment methodologies. EPA's current thinking is that the PGP will include a narrative WQBEL: "Your discharge must be controlled as necessary to meet applicable water quality standards (WQS)." EPA expects that compliance with FIFRA plus compliance with permit conditions will generally control discharges as necessary to meet applicable water quality standards.

DISCHARGE MANAGEMENT PLAN DEVELOPMENT AND DOCUMENTATION

Some permittees, likely those exceeding an application threshold, will be required to develop a written pesticide discharge management plan. Contents of the plan include items such as pesticide control team information, problem description, control measures description, pest surveillance, spill control, and adverse incident response. Information that will have to be documented includes things such as significant spills, maintenance, monitoring, and corrective actions.

MONITORING

The permit will also include some type of monitoring for all permittees. EPA is assessing how best to gather pesticide water quality data to evaluate permit effectiveness, and is considering options such as:

1. Visual monitoring for adverse effects
2. Monitoring of management practices
3. Ambient water quality monitoring.

REPORTING AND RECORDKEEPING

Some permittees may be required to submit annual

reports documenting pesticide application activities. Permittees will be required to report adverse incidents, which will help EPA to identify possible permit violations and where permits may need modification to further protect water quality.

Recordkeeping will be required, and, depending on the permittee, may include pesticide management logs, adverse incident reports, corrective action documentation, IPM plans, annual reports, etc. Records are to be kept on-site and may be accessed by the public through requests to EPA.

ENDANGERED SPECIES ACT CONSULTATION

The Endangered Species Act (ESA) requires EPA consultation with the Fish and Wildlife Service (FWS) and National Marine Fisheries Service (NMFS) – i.e., the "Services." EPA has commenced discussions with the Services on the PGP. These discussions may result in additional permit requirements. The ESA does not require states to perform similar consultation for permit issuance.

NPDES FACT SHEET COMPONENTS

Each NPDES permit has a fact sheet associated with it. The fact sheet will be available and noticed in the Federal Register at the same time as the PGP. The fact sheet will include significant factual, legal, methodological, and policy questions considered in preparing the permit. It will also include a description of the types of activities covered, types of discharges covered, and the rationale for permit requirements, including calculations and analysis.

ENVIRONMENTAL BENEFITS OF THE PGP

EPA expects that the PGP will provide environmental benefits, including:

1. Required use of IPM practices
2. Post-application surveillance and immediate notification of adverse effects
3. Expanded scope for who must report adverse effects on aquatic ecosystems
4. Mandatory equipment calibration and maintenance programs
5. Annual pesticide reporting – quantities and locations available to the public
6. Additional limitations on pesticide use in impaired waters (303d) and outstanding national resource waters
7. Unpermitted pesticide discharges will be enforceable under the CWA.

FURTHER INFORMATION

To learn more about the NPDES program, go to EPA's NPDES Training Website: www.epa.gov/npdes/training.

1. Archived NPDES Pesticides Webcast from 10/7/09 is available by scrolling down to "Aquatic Pesticides" and then clicking on: *Clean Water Act Permitting of Discharges from Pesticide Applications*
2. Also, background information on NPDES permitting is available. Click on *NPDES Permit*

Writers Training and then look for the heading *Introduction to the NPDES Program*. This includes two 30-minute presentations (with audio):

- a. 'Overview of the Clean Water Act and the NPDES Program'
- b. 'Scope and Regulatory Framework of the NPDES Program'.

Information on the NPDES program and agriculture may be found at: www.epa.gov/npdes/agriculture.

LITERATURE CITED

FIFRA. 2008. The Federal Insecticide, Fungicide and Rodenticide Act, as amended. 109 pp. <http://agriculture.senate.gov/Legislation/Compilations/Fifra/FIFRA.pdf>.