



NPDES Permitting

Pesticide Applications



PURPOSE

- **Become familiar with NPDES Permit**
- **Understand underlying legal actions**
- **Learn about: EPA current thinking**

Terminology

- **NPDES - National Pollution Discharge Elimination System**
- **CWA - Clean Water Act**
- **FIFRA - Federal Insecticide, Fungicide, and Rodenticide Act**
- **PGP - Pesticide General Permit**
- **IPM - Integrated Pest Management**
- **NOI - Notice of Intent**

NPDES – designed for:

- **Sewage effluent discharges**
- **Industrial effluent discharges**
- **Municipal & Industrial storm water**



24 Hour automatic NPDES influent and effluent sampling equipment

Background

Following an acrolein application to water in a canal that was released to adjacent waters in which there was a large fish kill - Oregon

9th Circuit Court - 2001

Headwaters, Inc. v. Talent Irrigation Dist.

“An application of pesticides to control vegetation in water requires an NPDES Permit” (ignores the science that produced registered labels)

Background

- **US EPA Rule - 2006**

An NPDES Permit is not required when application of pesticides to, over, or near waters of the US is consistent with FIFRA

Written to resolve discrepancy between pesticide application regulations in 9th Circuit and the rest of the US

Litigation

- **Activist groups filed petitions in 9th, 2nd, and 1st Circuits to overturn EPA Rule**
- **Industry filed petitions in 8 Circuit Courts to support and expand EPA Rule**
- **6th Circuit chosen via lottery to hear case**
- **National Cotton Council chosen as Petitioner with EPA as the Respondent**

Litigation

- April 2007 - April 2008

Motions, petitions, oral arguments

- January 7, 2009

6th Circuit Panel issues decision

- **strikes down final EPA Rule**
- **cites conflicts with CWA**

6th Circuit Rationale

- “Excess” or “residual” chemical pesticides are “chemical waste” and therefore “pollutants”
- All biological pesticides are pollutants “they undeniably alter the physical integrity of the waters”

6th Circuit Rationale

- **Excess or residual chemical is discharged from a “Point Source” (the application equipment) even though it may only become “excess” or “residual” at some time after being released from the application equipment**

Response to 6th Circuit

- **April 9, 2009**

Industry files for rehearing by full 6th Circuit -
Contend CWA requires permit for substances
that are pollutants when discharged

- **April 9, 2009**

EPA files motion for a “stay of mandate”
- 2-year extension to develop regulations in 5
states and territories that have no state NPDES
presence & develop state permits in other states

6th Circuit Response

- June 8, 2009

Grants EPA motion to stay the mandate through April 9, 2011

- August 3, 2009

6th Circuit denies Industry petition for rehearing

Remedies

- **November 2, 2009**

Several groups petition Supreme Court to consider the case

- **December 4, 2009**

30 Members of Congress support Supreme Court rehearing the case

- **February 22, 2010**

Supreme Court decides to NOT review the case

Applications Requiring NPDES Permit

- **When applying pesticides to, over, and near waters of the US to control:**
 - **Mosquitoes - aerial adulticiding / larviciding (and other aquatic nuisance insects)**
 - **Aquatic weeds and algae**
 - **Area-wide pests - e.g. Mediterranean fruit fly**
 - **Aquatic nuisance animals - e.g. zebra mussels**
 - **Fish removal (rotenone)**

CWA Exemptions

- **Irrigation return flow**
- **Agricultural stormwater runoff**

Scope of Impact

- 5.6 million applications / year
- 360,000 applicators
- 500 active ingredients
- 3,700 product labels

Pesticide General Permit

Current EPA / State considerations

- **Cover pesticide applications under a PGP (called “Generic Permit” in FL)**
- **Individual permits may be issued**
- **Abide by requirements of the permit**
- **Must submit NOI if exceed threshold**
 - **cumulative acreage**
 - **annual totals**
- **PGP - for period not to exceed 5 years**

Individual Permit

- **Discharges to waters that are impaired for that pesticide**
 - none in FL for aquatic plant control
- **Discharges to Tier 3 waters**
 - none in FL for aquatic plant control

EPA Implementation

- **PGP Florida Implementation**
 - **FDEP** - implement / enforce program
 - **FDACS** - mosquito control
 - **FWC** - aquatic plant control permits



State Implementation

- **States develop own permit**
 - **must meet CWA requirements**
 - **can be more stringent than EPA**
 - **EPA maintains oversight role**
 - **Region IV / Atlanta for FL**
- **Citizens have right to challenge permit**

State Implementation

- EPA Advice: *“Look to what got us here”*
 - Pesticide discharge resulted in fish kill
 - probable FIFRA label violation
 - no penalty issued Talent Irrigation Dist.
 - Perceived lack of IPM
 - Perceived lack of oversight, enforcement
- Bottom line under NPDES:
 - Demonstrate good IPM

EPA PGP components

- **Coverage**
- **Effluent limits**
- **IPM**
- **Monitoring**
- **Pesticide Discharge Management Plan**
- **Recordkeeping and Reporting**

FL Generic Permit

Under consideration:

- **If permitted for AP control by FWC then covered under NPDES permit held by FWC**
- **5(?) -year permit**
- **If threshold exceeded in one year or if not permitted by FWC, may need to file NOI with FDEP - e.g.**
 - **USACE - Okeechobee / SJR**
 - **WMDs - wetland apc - canals**
 - **Water control districts - canals**
 - **Waters exempt from FWC permits**

NOI – Who Files

- Entities not permitted by FWC who exceed annual thresholds
- NOI filer is the person who decides to conduct application

?? Thresholds – effluent limits ??

- Mosquitos - acreage?
- Aquatic weeds - acres? / river miles?
- Area wide - acres? / miles?
- Aquatic nuisance animals - acres?

Effluent Limits

EPA considering technology v. water quality based effluent limits

- Technology based
 - reduce pesticide use in water
 - IPM
- Water quality based (**unworkable**)
 - sample for residues after application
 - water quality standards for all aquatic use pesticides (Labels?)

Technology Based Effluent Limits

- **Comprehensive IPM Practices**
 - identify pest problem
 - assess effective pest management
 - follow sound pesticide use procedures
- *EPA contemplating that compliance with FIFRA and General Permit conditions will control discharges to meet existing water quality standards*

Technology Based Effluent Limits

Examples of minimizing pesticide use

- **Lowest effective amount**
- **Optimum frequency / action threshold**
 - “maintenance control” in FL
- **Maintain equipment**
 - cleaning / calibration / repairs

Monitoring

- **For pesticide use**
 - **prior surveillance**
 - **post-application surveillance**
 - **effectiveness**
 - **adverse effects**

Adverse Effects

- Possible person / non-target exposure
- Distressed fish / fish kill
- Stunted / wilted / discolored non-target plants
 - except non-target impacts that are anticipated and temporary

PDMP

Pesticide Discharge Management Plan

- **identify management plan team**
- **problem description**
- **control measures**
- **pest surveillance**

PDMP - Continued

Under consideration:

- **Spill prevention and response**
- **Equipment maintenance**
- **Adverse incident reporting**
- **Pesticide use tracking**

Records / Reporting

- **EPA Contemplating record keeping or reporting for various parameters:**
 - **adverse incidents**
 - **spills / leaks that may impact water**
 - **pesticide use exceeding thresholds**
 - **equipment maintenance, calibration**
 - **control acreage below thresholds**

Costs

- **Record keeping / reporting**
- **Management plan development**
- **Monitoring - site visits**
- **Permit fee**
- **Insurance**

EPA Schedule

- **Draft Pesticide General Permit for FL**
 - ~ **May / June, 2010**
 - **template for other states to follow**
- **Public comments**
 - ~ **June / July 2010**
- **Final Permit**
 - ~ **December 2010**
- **Implement in FL - April 10, 2011**



NPDES PERMITTING

- **Stay engaged**
 - **keep informed**
 - **assess personal impacts**
 - **participate in public meetings**
 - **provide written comments EPA**

