
**MODIFICATIONS TO WATER QUALITY ORDER NO. 2004-0009-DWQ
NPDES NO. CAG990005**

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FOR THE
DISCHARGE OF AQUATIC PESTICIDES FOR AQUATIC WEED CONTROL IN
WATERS OF THE UNITED STATES (WEED CONTROL PERMIT)**

For reference, we have included the following changes in an accompanying sample order.

1. In the Fact Sheet on page 6 following the third full paragraph, under the heading “Addition of Newly Registered Aquatic Pesticides,” change the first sentence “Finding ~~34~~**32** of this Order states that it may be reopened to add coverage of aquatic pesticides that have been newly registered by DPR,” and add the following after it:

On February 27, 2006, DPR registered sodium carbonate peroxyhydrate for aquatic application. Sodium carbonate peroxyhydrate is an algaecide used to control blue-green algae. The formulation registered in February (PAK 27) is selective and has little impact on green species and eukaryotic organisms (*A Literature Review and Case Study* by Noel Boulos and Samuel B. Moore). Upon activation, the compound breaks down into hydrogen peroxide and sodium carbonate. Hydrogen peroxide has a half-life of less than eight hours in an aquatic environment and can breakdown through hydrolysis, photolysis, anaerobic and aerobic metabolism, leaching and adsorption/desorption, and sediment dissipation.

2. On page 7 of the Fact Sheet in the second full paragraph, second sentence, under the heading Permit Coverage/Notification Requirements, add “sodium carbonate peroxyhydrate” immediately following “imazapyr.”
3. On page 7 of the Fact Sheet in the third full paragraph, seventh sentence, under the heading Permit Coverage/Notification Requirements, add “sodium carbonate peroxyhydrate” immediately following “imazapyr.”
4. On page 14 of the Fact Sheet, make the following corrections to the Maximum Residual Total Copper Concentration Calculation and the sample calculation:

Maximum Residual Total Copper Concentration Calculation = ~~$\exp\{0.85459(\ln(\text{hardness}) - 1.702)\}$~~
 $\exp\{0.8545[\ln(\text{hardness})] - 1.702\}$

For example, for application in water with a hardness of 325 mg/L, in order to be in compliance with this General Permit, the copper concentration in the receiving water must be less than ~~32.7~~
 ~~$\mu\text{g/L}$~~ **25.5 $\mu\text{g/L}$** .

5. On page 15 of the Fact Sheet in the third paragraph, make the following changes:

Nonylphenol

Nonylphenol is soluble in water and moderately resistant to natural degradation in water. Because of its ~~chemical properties~~ **toxicity to aquatic organisms** and widespread use as a chemical intermediate (surfactant), concerns have been raised over the risks it poses to both freshwater and saltwater organisms. ~~Currently, there are no State or USEPA-based numeric objectives or criteria for Nonylphenol. However, this General Permit requires monitoring for Nonylphenol, when this type of adjuvant is used.~~ **On February 23, 2006, USEPA promulgated the final aquatic life ambient water quality criteria for Nonylphenol. This General Permit requires compliance with the most protective of these criteria. The freshwater chronic criterion is 6.6 µg/L, and the saltwater chronic criterion is 1.7 µg/L.**

6. Under the heading Receiving Water Limitations on page 15 of the Fact Sheet and after the third full paragraph, insert the following:

Sodium Carbonate Peroxyhydrate

Currently, there are no State or USEPA-based numeric objectives or criteria for sodium carbonate peroxyhydrate. Therefore, this General Permit does not have receiving water limitations for sodium carbonate peroxyhydrate. However, it requires dischargers who use sodium carbonate peroxyhydrate to monitor their applications.

7. On page 2 of the Waste Discharge Requirements, the State Water Board is proposing the addition of a Finding, placed between what are now Findings 13 and 14, thus becoming Finding 14:
 14. On February 27, 2006, DPR registered sodium carbonate peroxyhydrate for aquatic application. On June 7, 2006, this General Permit was modified to allow the discharge of pollutants associated with the application of sodium carbonate peroxyhydrate-based aquatic pesticides to surface waters for aquatic weed control.
8. Due to the addition of a Finding, all proceeding Findings, found on pages 2 through 6, will be renumbered.
9. In the Waste Discharge Requirements under heading A. Application Requirements on page 6, insert the words “sodium carbonate peroxyhydrate” immediately after “imazapyr.”

10. On page 7 of the Waste Discharge Requirements, change the table under C. Receiving Water Limitations by editing the copper concentration equation and adding limits for nonylphenol:

Constituent/ Parameter	BENEFICIAL USE			
	MUN	WARM or COLD	Other than MUN, WARM, or COLD	All Designations
2,4-D	70 µg/L			
Acrolein ⁷	320 µg/L	21 µg/L	780 µg/L	
Copper ⁸				Maximum Copper Concentration = $\exp\{0.8545 \cdot (\ln(\text{hardness})) - 1.702\}$ $\exp\{0.8545[\ln(\text{hardness})] - 1.702\}$
Diquat	20 µg/L			
Endothall	100 µg/L			
Fluridone	560 µg/L			
Glyphosate	700 µg/L			
Nonylphenol				Freshwater Chronic Criterion = 6.6 µg/L, Saltwater Chronic Criterion = 1.7 µg/L
Toxicity				Applications shall not cause or contribute to toxicity

11. On page 2 of Attachment E under the heading Public Entities with Policy Section 5.3 Exception, add “Glenn-Colusa Irrigation District” as number 8, “Potter Valley Irrigation District” as number 17, and renumber as appropriate.