

# **Compliance Guide for the Concentrated Aquatic Animal Production Point Source Category**

## **Chapter 2: What is the CAAP Regulation?**

Full document available at  
<http://www.epa.gov/waterscience/guide/aquaculture>

## Chapter 2: What is the CAAP Regulation?

This guide covers the requirements in the June 2004 rule for CAAP facilities. The regulation does not revise the current National NPDES Permit Regulation for CAAPs (40 CFR 122.24 and Appendix C). It does however, establish the ELGs for CAAPs (40 CFR 451).

### What is the NPDES Program?

The NPDES Program was created under the federal Clean Water Act to protect and improve water quality by regulating point source dischargers. Point source

*A **discharge**, in general, is the flow of treated or untreated wastewater from a facility to waters of the United States.*

dischargers are operations that *discharge pollutants* from *discrete conveyances* directly into *waters of the United States*. Point source dischargers are generally regulated by NPDES permits (40 CFR §122.2).

*The CWA defines **pollutant** as dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.*

An NPDES permit:

- Identifies outfall points from which a facility discharges wastewater to surface waters.
- Sets requirements to protect the quality of surface water (such as pollutant concentration limits, management practices, and record-

keeping requirements) that the discharger must meet.

- Allows an operation to discharge pollutants as long as the operation meets the requirements in the permit.

*A **discrete conveyance**, in general, is any single, identifiable way for pollutants to be carried or transferred to waters, such as a pipe, ditch, or channel.*

Generally, if a facility discharges pollutants without having a permit, or has a permit but does not meet the requirements, it is violating the Clean Water Act. The owner or operator of the facility could be subject to enforcement actions such as fines.

Under the Clean Water Act, CAAPs are defined as point source dischargers. Refer to Chapter 3 of this document (“Does the CAAP Regulation Affect Me?”) for a description of how EPA has defined CAAPs.

*Every facility that meets EPA’s definition of a CAAP has a duty to apply for a permit. EPA recommends that CAAP owners or operators that do not discharge should contact their permitting authority for assistance. For more information, refer to “How do I know I am covered by these regulations” in Chapter 3 of this guide.*

### What are the Effluent Limitations Guidelines for CAAPs?

ELGs are national standards for wastewater discharges to surface waters and publicly owned treatment works (municipal sewage treatment plants). EPA develops ELGs for

categories of existing sources and new sources under the Clean Water Act. The standards are technology-based (i.e. they are based on the performance of treatment, control technologies, and practices).

EPA completed ELGs for the CAAP industry on June 30, 2004. These ELGs are used by permitting authorities to set permit requirements for individual facilities. The requirements of the CAAP ELGs are included directly into an individual permit. In the case of CAAPs, the ELGs require **management practices and record-keeping activities**, rather than numerical limits called “discharge limits.” Your state permitting authority may also set additional requirements that are needed to protect water quality or other

requirements that apply under state or local law. Appendix A contains a list of permitting authorities. A summary of the regulation is available in Tables 1 through 3, at the end of this chapter.

*Note that management practices are general requirements (e.g., solids control) and facilities may choose how to achieve them. For example, solids control can be achieved through feed management and/or proper operation and maintenance of solids treatment systems. The rule does not require any specific measures to achieve solids control.*

**Why is this regulation important?**

This regulation is important in reducing discharges of conventional pollutants (mainly total suspended solids), non-conventional pollutants (e.g., nutrients, drugs, and chemicals), and to a lesser extent, toxic pollutants (metals and PCBs) from CAAP facilities covered by the regulation.

EPA estimated that implementation of the ELGs will result in reducing the discharge of total suspended solids by more than 500,000 pounds per year and discharge of biochemical oxygen demand and nutrients by approximately 300,000 pounds per year.

*The term **waters of the United States** is defined at 40 CFR 122.2. It means:*

- *Waters used for interstate or foreign commerce (e.g. Mississippi River).*
- *All interstate waters, including interstate “wetlands.”*
- *Waters used for recreation by interstate or foreign travelers (for example a lake in one state that attracts fisherman from neighboring states).*
- *Waters from which fish or shellfish are taken to sell in other states or countries.*
- *Waters used for industrial purposes by industries involved in interstate commerce.*
- *Tributaries and impoundments or dams of any waters described above.*
- *Territorial seas.*
- *Wetlands adjacent to any waters described above.*

*Waters of the United States does not include:*

- *Ponds or lagoons designed and constructed specifically for waste treatment systems.*
- *Wetlands that were converted to cropland before December 23, 1985.*

*These are only examples of kinds of waters considered waters of the United States. See the complete regulatory definition at 40 CFR 122.2 to see what other kinds of waters might be considered waters of the United States.*

*The final regulation applies to CAAPs (that meet the production threshold) located in the territorial seas, contiguous zone, or ocean waters. Although EPA did not identify any existing facilities during the development of the regulation, net pens (or cages) operating in the contiguous zone or ocean waters would be subject to the regulation at this time. Future CAAPs (that meet the production threshold) in ocean waters or the contiguous zone are point sources subject to new source performance standards and NPDES permitting requirements.*

The resulting improvements in water quality will create more opportunities for swimming and fishing, and reduce stress on ecosystems in those waters. They could also affect other aquatic environmental variables, such as primary production and populations or assemblages of native organisms in the receiving waters of regulated facilities.

**Do other laws regulate CAAPs?**

Although this guide explains what you need to do to comply with the federal CAAP regulation, your state, county, or town might have more requirements to address specific circumstances. Your permitting authority can set additional permit requirements if it finds them necessary. For example, they might set additional effluent limitations on a facility to ensure attainment of state water quality standards. State regulations must include federal requirements, but they can also be broader, stricter, or more specific. To learn about regulations in your state, contact your permitting authority. Appendix A contains a list of permitting authorities.

Your NPDES permit might include other federal requirements that apply to point source discharges (e.g., requirements under the Endangered Species Act, or resulting from the CWA Total Maximum Daily Load (TMDL) program). CAAPs might also be subject to federal requirements under the Animal and Plant Health Inspection Service (APHIS), the Spill Prevention, Containment, and Countermeasure (SPCC) regulations, CWA Section 403(c) Ocean Discharge Criteria, or the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). New CAAPs may be subject to requirements resulting from implementation of the National Environmental Policy Act (NEPA). The following can provide technical assistance to make sure you are complying with all applicable requirements:

- Permitting authority/Departments of Environmental Protection – Appendix A
- National Association of State Aquaculture Coordinators (NASAC) <http://www.marylandseafood.org/aquaculture/nasac.php> – Appendix H
- State Sea Grant program – Appendix H
- Natural Resources Agencies Associated with Fisheries – Appendix B
- State Departments of Agriculture <http://www2.nasda.org/NASDA>
- USDA programs (Cooperative State Research, Education, and Extension Service (CSREES), Natural Resources Conservation Service (NRCS), others); see Appendix H for information about state cooperative extension service programs
  - General USDA programs – <http://www.usda.gov>
  - CSREES <http://www.csrees.usda.gov>
  - NRCS <http://www.nrcs.usda.gov>
- Other resources in your state

*Final Preamble: Section XIII*

**Table 1. Applicability of the CAAP ELGs to System Types**

System Type or Subcategory	Annual Production (lb)	
	<100,000	≥100,000
Flow-through and Recirculating (Subpart A)	Not Applicable	Subject to: 451.3(a)–(d) 451.11(a)–(e) 451.12–14
Net pen (Subpart B)	Not Applicable	Subject to: 451.3(a)–(d) 451.21(a)–(h) 451.22–24

**Table 2. Summary of Requirements for Flow-through and Recirculating Facilities**

<b>General Reporting Requirements</b>		<b>Reference</b>
<b>Drugs<sup>1</sup></b>		451.3(a)
1) Reporting of intention to use INADs where such use may lead to a discharge of the drug to waters of the U.S.	<ul style="list-style-type: none"> <li>Provide the permitting authority with a written report, within 7 days of agreeing or signing up to participate in an INAD study</li> <li>Identify the INAD to be used, method of use, the dosage, and the disease or condition the INAD is intended to treat</li> </ul>	451.3(a)(1)
2) Oral reporting of INAD and extralabel drug use	<ul style="list-style-type: none"> <li>Provide an oral report to the permitting authority as soon as possible, preferably in advance of application, but no later than 7 days after initiating use of the drug</li> <li>Identify drugs used, method of application, and the reason for adding that drug</li> </ul>	451.3(a)(2)
3) Written reporting of INAD and extralabel drug use	<ul style="list-style-type: none"> <li>Provide a written report to the permitting authority within 30 days after initiating use of the drug</li> <li>Identify the drug used and include the reason for treatment, date(s) and times(s) of the addition (including duration), method of application, and the amount added</li> </ul>	451.3(a)(3)
<b>Failure or Damage to the Structure of Aquatic Animal Containment System</b>		451.3(b)
1) Specification of reportable damage and/or material discharge	<ul style="list-style-type: none"> <li>The permitting authority may specify in the permit what constitutes reportable damage and/or material discharge of pollutants, based on consideration of production system type, sensitivity of the receiving waters, and other relevant factors</li> </ul>	451.3(b)(1)
2) Oral reporting of structural failure or damage	<ul style="list-style-type: none"> <li>Provide an oral report within 24 hours of the discovery of any reportable failure or damage that results in a material discharge of pollutants</li> <li>Describe the cause of the failure or damage in the containment system</li> <li>Identify materials that have been released to the environment as a result of the failure</li> </ul>	451.3(b)(2)
3) Written reporting of structural failure or damage	<ul style="list-style-type: none"> <li>Provide a written report within 7 days of discovery of the failure or damage</li> <li>Document the cause of the failure or damage</li> <li>Estimate the time elapsed until the failure or damage was repaired</li> <li>Estimate materials released to the environment as a result of the failure or damage</li> <li>Describe steps being taken to prevent a recurrence</li> </ul>	451.3(b)(3)
<b>Spills</b>		451.3(c)
1) Oral reporting of spills of drugs, pesticides, and feed	<ul style="list-style-type: none"> <li>Provide an oral report to the permitting authority within 24 hours of any spill of drugs, pesticides, and feed that results in a discharge to waters of the United States</li> <li>Identify the material spilled and quantity</li> </ul>	451.3(c)
2) Written reporting of spills of drugs, pesticides, and feed	<ul style="list-style-type: none"> <li>Provide a written report to the permitting authority within 7 days of any spill of drugs, pesticides, and feed that results in a discharge to waters of the United States</li> <li>Identify the material spilled and quantity</li> </ul>	451.3(c)

<sup>1</sup> Reporting is not required for an INAD or extralabel drug use of a drug previously approved by FDA for a different aquatic animal species or diseases if the INAD or extralabel use is at or below the approved dosage and involves similar conditions of use.

**Table 2. Summary of Requirements for Flow-through and Recirculating Facilities, Continued**

<i>Narrative Requirements</i>		<i>Reference</i>
<b>Best Management Practices Plan</b>		451.3(d)
1) Development and maintenance of a BMP plan on site that describes how the permittee will achieve the following five requirements:		451.3(d)(1)
a) Solids control	<ul style="list-style-type: none"> <li>• Employ efficient feed management and feeding strategies that limit feed input to the minimum amount reasonably necessary to achieve production goals and sustain targeted rates of aquatic animal growth in order to minimize potential discharges of uneaten feed and waste products to waters of the United States</li> <li>• Identify and implement procedures for routine cleaning of rearing units and offline settling basins</li> <li>• Identify procedures for inventorying, grading, and harvesting aquatic animals that minimize discharge of accumulated solids</li> <li>• Remove and dispose of aquatic animal mortalities properly on a regular basis to prevent discharge to waters of the United States, except where authorized by the permitting authority in order to benefit the aquatic environment</li> </ul>	451.11(a)
b) Material storage	<ul style="list-style-type: none"> <li>• Ensure proper storage of drugs, pesticides, and feed in a manner designed to prevent spills that may result in the discharge of drugs, pesticides, or feed to waters of the United States</li> <li>• Implement procedures for properly containing, cleaning, and disposing of any spilled materials</li> </ul>	451.11(b)
c) Structural maintenance	<ul style="list-style-type: none"> <li>• Routinely inspect production systems and wastewater treatment systems to identify and promptly repair damage</li> <li>• Regularly conduct maintenance of production systems and wastewater treatment systems to ensure their proper function</li> </ul>	451.11(c)
d) Record-keeping	<ul style="list-style-type: none"> <li>• Maintain records for aquatic animal rearing units documenting feed amounts and estimates of the numbers and weights of aquatic animals in order to calculate representative feed conversion ratios</li> <li>• Keep records documenting frequency of cleaning, inspections, maintenance, and repairs</li> </ul>	451.11(d)
e) Training	<ul style="list-style-type: none"> <li>• Train all relevant personnel in spill prevention and how to respond in the event of a spill to ensure proper clean-up and disposal of spilled materials</li> <li>• Train personnel on proper operation and cleaning of production and wastewater treatment systems, including feeding procedures and proper use of equipment</li> </ul>	451.11(e)
2) Make the plan available to the permitting authority upon request		451.3(d)(2)
3) Certify that a BMP plan has been developed		451.3(d)(3)

**Table 3. Summary of Requirements for Net Pen Facilities**

<b>General Reporting Requirements</b>		<b>Reference</b>
<b>Drugs<sup>2</sup></b>		451.3(a)
1) Reporting of intention to use INADs where such use may lead to a discharge of the drug to waters of the U.S.	<ul style="list-style-type: none"> <li>Provide the permitting authority with a written report, within 7 days of agreeing or signing up to participate in an INAD study</li> <li>Identify the INAD to be used, method of use, the dosage, and the disease or condition the INAD is intended to treat</li> </ul>	451.3(a)(1)
2) Oral reporting of INAD and extralabel drug use	<ul style="list-style-type: none"> <li>Provide an oral report to the permitting authority as soon as possible, preferably in advance of application, but no later than 7 days after initiating use of the drug</li> <li>Identify drugs used, method of application, and the reason for adding that drug</li> </ul>	451.3(a)(2)
3) Written reporting of INAD and extralabel drug use	<ul style="list-style-type: none"> <li>Provide a written report to the permitting authority within 30 days after initiating use of the drug</li> <li>Identify the drug used and include the reason for treatment, date(s) and times(s) of the addition (including duration), method of application, and the amount added</li> </ul>	451.3(a)(3)
<b>Failure or Damage to the Structure of Aquatic Animal Containment System</b>		451.3(b)
1) Specification of reportable damage and/or material discharge	<ul style="list-style-type: none"> <li>The permitting authority may specify in the permit what constitutes reportable damage and/or material discharge of pollutants, based on consideration of production system type, sensitivity of the receiving waters, and other relevant factors</li> </ul>	451.3(b)(1)
2) Oral reporting of structural failure or damage	<ul style="list-style-type: none"> <li>Provide an oral report within 24 hours of the discovery of any reportable failure or damage that results in a material discharge of pollutants</li> <li>Describe the cause of the failure or damage in the containment system</li> <li>Identify materials that have been released to the environment as a result of the failure</li> </ul>	451.3(b)(2)
3) Written reporting of structural failure or damage	<ul style="list-style-type: none"> <li>Provide a written report within 7 days of discovery of the failure or damage</li> <li>Document the cause of the failure or damage</li> <li>Estimate the time elapsed until the failure or damage was repaired</li> <li>Estimate materials released to the environment as a result of the failure or damage</li> <li>Describe steps being taken to prevent a recurrence</li> </ul>	451.3(b)(3)
<b>Spills</b>		451.3(c)
1) Oral reporting of spills of drugs, pesticides, and feed	<ul style="list-style-type: none"> <li>Provide an oral report to the permitting authority within 24 hours of any spill of drugs, pesticides, and feed that results in a discharge to waters of the United States</li> <li>Identify the material spilled and quantity</li> </ul>	451.3(c)
2) Written reporting of spills of drugs, pesticides, and feed	<ul style="list-style-type: none"> <li>Provide a written report to the permitting authority within 7 days of any spill of drugs, pesticides, and feed that results in a discharge to waters of the United States</li> <li>Identify the material spilled and quantity</li> </ul>	451.3(c)

<sup>2</sup> Reporting is not required for an INAD or extralabel drug use of a drug previously approved by FDA for a different aquatic animal species or diseases if the INAD or extralabel use is at or below the approved dosage and involves similar conditions of use.

**Table 3. Summary of Requirements for Net Pen Facilities, Continued**

<i>Narrative Requirements</i>		<i>Reference</i>
<b>Best Management Practices Plan</b>		451.3(d)
1) Develop and maintain a BMP plan on site that describes how the permittee will achieve the following seven requirements:		451.3(d)(1)
a) Feed management	<ul style="list-style-type: none"> <li>• Employ efficient feed management and feeding strategies that limit feed input to the minimum amount reasonably necessary to achieve production goals and sustain targeted rates of aquatic animal growth</li> <li>• Minimize accumulation of uneaten feed beneath the pens through active feed monitoring and management strategies approved by the permitting authority</li> </ul>	451.21(a)
b) Waste collection and disposal	<ul style="list-style-type: none"> <li>• Collect, return to shore, and properly dispose of all feed bags, packaging materials, waste rope, and netting</li> </ul>	451.21(b)
c) Transport or harvest discharge	<ul style="list-style-type: none"> <li>• Minimize any discharge associated with the transport or harvesting of aquatic animals (including blood, viscera, aquatic animal carcasses, or transport water containing blood)</li> </ul>	451.21(c)
d) Carcass removal	<ul style="list-style-type: none"> <li>• Remove and dispose of aquatic animal mortalities properly on a regular basis to prevent their discharge into the waters of the United States</li> </ul>	451.21(d)
e) Materials storage	<ul style="list-style-type: none"> <li>• Ensure proper storage of drugs, pesticides, and feed in a manner designed to prevent spills that may result in the discharge of drugs, pesticides, or feed into waters of the United States</li> <li>• Implement procedures for properly containing, cleaning, and disposing of any spilled material</li> </ul>	451.21(e)
f) Maintenance	<ul style="list-style-type: none"> <li>• Inspect production systems on a routine basis in order to identify and promptly repair any damage</li> <li>• Conduct regular maintenance on the production system in order to ensure its proper function</li> </ul>	451.21(f)
g) Record-keeping	<ul style="list-style-type: none"> <li>• Maintain records for aquatic animal net pens documenting the feed amounts and estimates of the numbers and weight of aquatic animals in order to calculate representative feed conversion ratios</li> <li>• Keep records of net changes, inspections, and repairs</li> </ul>	451.21(g)
h) Training	<ul style="list-style-type: none"> <li>• Train all relevant personnel in spill prevention and how to respond to spills to ensure proper clean-up and disposal of spilled materials</li> <li>• Train staff on proper operation and cleaning of production system, including feeding procedures and equipment</li> </ul>	451.21(h)
2) Make the plan available to the permitting authority upon request		451.3(d)(2)
3) Certify that a BMP plan has been developed		451.3(d)(3)