

Compliance Guide for the Concentrated Aquatic Animal Production Point Source Category

Chapter 8: Writing and Certifying a BMP Plan

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

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A BMP is a means of controlling and reducing pollutant discharges other than those that rely on mechanic/physical or chemical systems. BMPs include schedules of activities, prohibition of action, maintenance and management procedures, and other treatment and operating requirements. These practices may be in addition to or separate from physical treatment systems.

Based on the CAAP regulation, facility operators must design BMP plans to include a series of practices such as feed management, feed monitoring, solids control, and material storage. BMP plans are flexible and allow facility operators to design measures and practices that work within their facility management framework.

Publicly supported aquaculture extension specialists, fact sheets, and reports are available to assist with developing BMP plans. These resources can help assure that the production practices, design parameters, and equipment will achieve the environmental protection goals being addressed.

In the context of the CAAP ELGs, the BMP plan must include components that are designed to minimize the discharge of solids from the facility. The goal of the plan is to control conventional and nutrient pollutants in the discharge.

The CAAP facility is expected to provide written documentation of a BMP plan and keep necessary records to demonstrate the implementation of the plan. This type of regulatory structure allows individual

facilities to develop a plan tailored to the unique conditions of the CAAP facility, while reducing the discharge of pollutants consistent with the goals of the CWA.

What is the goal of a BMP plan?

The goal of a BMP plan, as stated under the narrative requirements of the ELGs, is to describe the standard operating procedures and BMPs used to control solids, store materials, maintain the aquatic animal containment structures, perform record-keeping, train employees, monitor feeding, collect and dispose of waste, address transport or harvest discharge, and remove dead aquatic animals.

How do I write a BMP plan?

Your plan should describe how you will comply with each required element of the regulations. It should incorporate the following components, depending on the type(s) of system at your facility:

Solids Control

For your flow-through and/or recirculating systems, describe in detail how you will:



- Perform efficient feed management to limit feed input to the minimum amount reasonably necessary to achieve production goals and sustain targeted rates of aquatic animal growth.

- Identify and implement procedures for routine cleaning of rearing units and offline settling basins.
- Identify procedures for inventorying, grading, and harvesting aquatic animals that minimize discharge of accumulated solids.
- 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 your permitting authority in order to benefit the aquatic environment).

As part of your BMP plan, you should define the term "routine," which can vary during the year.

 Regulation: 40 CFR 451.11(a)

Material Storage

For your flow-through, recirculating and/or net pen systems, describe in detail how you will:



- Ensure proper storage of drugs, pesticides, and feed to prevent spills that may result in the discharge to waters of the United States.
- Implement procedures for properly containing, cleaning, and disposing of any spilled materials.

 Regulation: 40 CFR 451.11(b) and 451.21(e)

Refer to the EPA Office of Pesticides website on Pesticide Storage Resources (http://www.epa.gov/pesticides/regulating/storage_resources.htm) or JSA's *Guide to Drug, Vaccine, and Pesticide Use in Aquaculture* at (<http://aquanic.org/jsa/wgqaap/drugguide/drugguide.htm>) for useful information or

suggestions for ensuring proper storage of drugs, pesticides, and feed to prevent spills.

Maintenance

For your flow-through and/or recirculating systems, describe in detail how you will:



- Routinely inspect production systems and wastewater treatment systems to identify and promptly repair damage.
- Regularly conduct maintenance of production systems and wastewater treatment systems to ensure their proper function.

For your net pen systems, describe in detail how you will:



- Routinely inspect production systems to identify and promptly repair damage.
- Regularly conduct maintenance of production systems to ensure their proper function.

As part of your BMP plan, you should define the terms "routinely" and "regularly," which can vary during the year.

 Regulation: 40 CFR 451.11(c) and 451.21(f)

Record-keeping

For your flow-through and/or recirculating systems, describe in detail how you will:



- 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.

- Keep records documenting frequency of cleaning, inspections, maintenance, and repairs.

For your net pen systems, describe in detail how you will:



- 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.
- Keep records documenting net pen changes, inspections, and repairs.

Regulation: 40 CFR 451.11(d) and 451.21 (g)

Training

For your flow-through and/or recirculating systems, describe in detail how you will:



- 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.
- Train personnel on proper operation and cleaning of production and wastewater treatment systems, including feeding procedures and proper use of equipment.

For your net pen systems, describe in detail how you will:



- 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.

- Train personnel on proper operation and cleaning of production systems, including feeding procedures and equipment.

Regulation: 40 CFR 451.11(e) and 451.21(h)

Feed Management

For your net pen systems, describe in detail how you will:



- 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.
- Minimize accumulation of uneaten feed beneath the pens through active feed monitoring and management strategies approved by your permitting authority.

Documenting efficient feed management for EPA can be accomplished by describing the following:

- Feed methods used to minimize solids production.
- Modifications made to feed quantities as fish production changes (e.g., size, health of fish).
- Feed handling methods used to reduce generation of fines.
- Feed formulations information for each life-history stage of fish reared.

Regulation: 40 CFR 451.21(a)

Waste Collection and Disposal

For your net pen systems, describe in detail how you will:



- Collect, return to shore, and properly dispose of all feed bags, packaging materials, waste rope, and netting.

 Regulation: 40 CFR 451.21(b)

Transport or Harvest Discharge

For your net pen systems, describe in detail how you will:



- Minimize any discharge associated with the transport or harvesting of aquatic animals (including blood, viscera, aquatic animal carcasses, or transport water containing blood).

 Regulation: 40 CFR 451.21(c)

Carcass Removal

For your net pen systems, describe in detail how you will:



- Remove and dispose of aquatic animal mortalities properly on a regular basis to prevent their discharge into waters of the United States.

 Regulation: 40 CFR 451.21(d)

Other Information

Including a diagram or map of the facility to illustrate the layout of the operation may be helpful to your permitting authority. Also include a statement certifying that the facility manager and the individuals responsible for implementing the BMP plan have reviewed and endorsed the plan.

A template for developing your BMP plan is available in Appendix E. A sample BMP plan and a checklist of components to

include in your BMP plan are also available in Appendix E.

How do I certify my BMP plan?

Send a signed letter to your permitting authority, stating that you have developed a BMP plan. You will need to send a letter every time your permit is renewed. The BMP certification form should include your name and title, name of the facility, NPDES number, and date the BMP plan was developed. An example certification form that may be submitted to your permitting authority is available in Appendix F.

If you have any questions about certifying your BMP plan, be sure to check with your permitting authority.