

comments. Reviewers can find this additional information at DCN 45232 and we cited it often in this notice.

Additional information included:

- References documenting the presence of viral hemorrhagic septicemia in west coast salmonids.
- Documents on the fate and environmental effects of copper sulfate as a treatment for catfish ponds.
- Feed conversion rates including the effect that feed formulation has on the excretion and discharge of various pollutants.

- Information on BMPs and permit requirements for net pen systems.

- Information on the economic impacts of additional costs for aquatic animal production to the farm operations and nearby communities.

This notice also addresses questions and concerns raised during three public meetings on the proposed rule held in late October to mid-November of 2002. EPA used the public meetings to update the public on the status of the CAAP effluent guidelines and to discuss the proposal. Several attendees submitted comments to EPA after the meetings. DCNs 40520, 40521, 40522 summarize the discussions and comments at those meetings.

D. Detailed Survey Results

In August 2001, EPA mailed about 6,000 screener surveys to aquatic animal production facilities. EPA received responses from 4,900 facilities, of which about 2,300 facilities reported that they produce aquatic animals. EPA based its proposed regulations on the data collected from the screener questionnaire.

Consistent with EPA's intentions described in the preamble to the proposed rule, EPA based its analyses for this notice on data collected from the detailed questionnaire. The preamble described the detailed questionnaire (DCN 62452) and EPA's plans to recalculate estimates for costs and benefits associated with the proposed regulatory options. The preamble also stated that the Agency would describe these data and analyses in this notice. (67 FR 57881, September 12, 2002). EPA reviewed the responses from the detailed questionnaire, performed follow-up activities on the detailed questionnaires resulting from inconsistencies or questions from an initial review of responses, and completed analyses of the data contained in these responses. This section describes the facilities that EPA selected to receive the detailed questionnaire and those that responded.

EPA used the screener responses to select a stratified random sample to

receive the detailed questionnaire. Sample criteria were designed to primarily capture facilities that produce aquatic animals and are likely to be covered by the proposed rule. EPA also developed sample criteria to capture facilities that are out of scope (based on information in the screener survey) to validate its assumptions about the applicability of the proposed regulation. For example, the sample criteria includes facilities with ponds, which are out of scope in the proposed regulation, to confirm that additional regulations for ponds are unnecessary. The Technical Development Document (TDD), page A11, describes in detail the criteria and includes facilities that are in-scope and out of scope. The facilities selected met one of these criteria:

- Aquariums.
- Production includes alligators and total biomass exceeds 100,000 pounds.
- Production includes trout or salmon and total biomass exceeds 20,000 pounds.
- Predominant production method is ponds; predominant species is catfish; and total biomass exceeds 2,200,000 pounds.
- Predominant production method is ponds; predominant species is shrimp, tilapia, other finfish, or hybrid striped bass; and total biomass exceeds 360,000 pounds.
- Predominant production method is any method except ponds, and total biomass exceeds 100,000 pounds.

Applying these criteria resulted in 539 facilities from the screener questionnaire responses with these characteristics. We then classified the 539 facilities into 44 groups defined by facility type (commercial, government, research, or tribal), the predominant species, and predominant production. A sample was drawn from the 539 facilities ensuring sufficient representation of facilities in each of the 44 groups. The sample drawn consisted of 263 facilities. From these 263 facilities EPA excluded 11 facilities that were duplicates on the mailing list or, after revising production estimates, did not meet the production thresholds for a CAAP facility. Detailed questionnaires were finally sent to 252 facilities.

EPA received responses on 215 of the 252 questionnaires. A few responses contained information on more than one facility. Subsequently, EPA separated that information into several questionnaires so that a single questionnaire represented an individual facility. EPA also excluded data from 12 facilities that returned incomplete responses. Because these facilities would not have been subject to the proposed limitations, EPA did not ask

for more information. After separating multiple responses and excluding incomplete responses, information is available from 205 facilities. Table II.D.1, Questionnaire Summary, provides a breakdown of this information.

TABLE II.D.1.—QUESTIONNAIRE SUMMARY

Information identifier	Number of questionnaires
Sample frame	263
Mailed	252
Received	215
Incomplete and not followed-up	12
Received and usable	203
Received and usable + separated	205

Because we selected the 205 facilities using a statistical design (see Appendix A of the Technical Development Document for more information), the responses allowed us to build a database to be used for estimating population characteristics reflecting the above criteria. For national (*i.e.*, population) estimates, EPA applied survey weights to the facility responses that incorporate the statistical probability of a particular facility being selected to receive the detailed questionnaire and adjust for non-responses. (The response rate was about 80 percent for the detailed questionnaire. Appendix A of the proposed TDD addresses the non-response adjustments for the screener questionnaire.) In this case, a survey weight of 3 means that the facility represents itself and two others in the population. EPA will continue its analysis to refine the survey weights for the detailed questionnaire.

From the sample for the detailed survey, EPA estimated the distribution of facilities by: production systems, ownership type, species produced, and geographic regions. We describe the distribution here and in Tables II.D.2, II.D.3, II.D.4, and II.D.5.

For production systems, EPA estimates that 14 percent of the surveyed population use multiple production system types, 70 percent use flow-through systems, 11 percent use ponds, 3 percent use recirculating systems, and 2 percent use net pens.

For ownership type, EPA estimates that 34 percent of the surveyed population are State-owned facilities, 14 percent are Federal facilities, 1 percent are academic facilities, 2 percent are Tribal facilities, 1 percent are private non-profit facilities, and 48 percent are private commercial facilities.