

and it experiences reduced operating costs because it handles less waste with substantially lower water and higher solids content than a water-intensive lagoon-based system. New sources may be able to avoid many of the other control costs facing some existing producers through careful site selection, such as choosing to locate at a site with sufficient available land nearby for applying manure. Furthermore, other technologies are available to new sources, that have been implemented by existing sources, that are also capable of achieving the no discharge standard.

See section IV C above for further discussion of other technologies. Since the new source requirements for Subpart C are the same as the corresponding existing source requirements, EPA concludes that the NSPS requirements promulgated today do not present a barrier to entry for new facilities. For Subpart D facilities, where the new source requirements are more stringent than the existing source requirements, EPA concludes that the NSPS requirements do not pose a barrier to entry because of the currently widespread use of animal confinement practices and waste management technologies that can comply with the zero discharge standard, and because these total containment technologies and practices are less costly to implement than water-intensive systems (e.g., such as water flush waste management) that are exposed to precipitation. EPA costed for zero discharge technologies and showed that these would pose no barrier to entry. Now that operations can choose an alternative option that might be cheaper to implement, EPA believes that there is even less likelihood that there is a barrier to entry. More information is provided in the *Technical Development Document* and the *Economic Analysis* supporting the final regulations.

3. What Technology-Based Limitations Apply to Small and Medium CAFOs?

In today's final rule, small and medium-size AFOs that have been defined or designated as CAFOs by the permitting authority would not be subject to the effluent limitations guidelines and standards specified in part 412. (Refer to section IV.C.2.a. of this preamble for a discussion of the key public comments and EPA's final analysis for applying the effluent limitations guidelines only to Large CAFOs.) Rather, for Small and Medium CAFOs the permit writer would use BPJ to establish, case by case, the appropriate technology-based requirements for each permit. The technology-based requirements must

address the production area and the land application area(s). Establishing permit limits for these facilities on a BPJ basis, using 40 CFR 125.3 as a guide for the types of factors to consider, allows for the establishment of permit conditions that are tailored to and more directly address the site-specific conditions that led to the facility being defined or designated as a CAFO. In instances where technology-based requirements are not protective of water quality, the permit writer will also establish water quality-based effluent limits.

For the production area, the permitting authority must establish the technology-based limitations on the discharge of manure, litter, and process wastewater, including limitations where applicable based on the minimum duration and intensity rainfall event for which the CAFO can design and construct a system to contain all manure, litter, and process wastewater and storm water. Technical references from USDA and the American Society of Agricultural Engineers should be consulted for appropriate design factors to consider for containment structures. Typical design factors are: (1) Sludge volume, (2) treatment volume, (3) volume of manure and wastewater between drawdown events, (4) total volume for runoff and precipitation, and (5) the minimum duration and intensity rainfall event portion of (4).

For the land application area, the permitting authority must consider permit requirements that place technology-based limits on discharges resulting from the application of manure, litter, and process wastewater to land under the control of the CAFO owner or operator, including restrictions on the rates of application to ensure appropriate agricultural utilization of nutrients. In today's final rule, all CAFOs must develop and implement a nutrient management plan (as described in the next section).

4. Will CAFOs Be Required To Develop and Implement a Nutrient Management Plan?

Under today's final rule, NPDES permits for all CAFOs will require the development and implementation of a nutrient management plan. At a minimum, a nutrient management plan must include BMPs and procedures necessary to achieve effluent limitations and standards. The plan must, to the extent applicable, address the following minimum elements:

- Ensure adequate storage of manure, litter, and process wastewater, including procedures to ensure proper operation

and maintenance of the storage facilities;

- Ensure proper management of animal mortalities (i.e., dead animals) to ensure that they are not disposed of in any liquid manure, storm water, or process wastewater storage or treatment system that is not specifically designed to treat animal mortalities;

- Ensure that clean water is diverted, as appropriate, from the production area;

- Prevent direct contact of confined animals with waters of the United States;

- Ensure that chemicals and other contaminants handled on-site are not disposed of in any manure, litter, or process wastewater, or storm water storage or treatment system, unless specifically designed to treat such chemicals and other contaminants;

- Identify appropriate site specific conservation practices to be implemented, including as appropriate buffers or equivalent practices, to control runoff of pollutants to waters of the United States;

- Identify protocols for appropriate testing of manure, litter, process wastewater, and soil;

- Establish protocols to land apply manure, litter, or process wastewater in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater; and

- Identify specific records that will be maintained to document the implementation and management of the minimum elements described above.

For Large CAFOs these minimum elements of a nutrient management plan must also meet the more detailed requirements in the part 412 effluent guidelines. For Small and Medium CAFOs, or other operations not otherwise subject to part 412 requirements for land application, the minimum elements of a nutrient management plan will be further specified in the permit, on a site specific basis, based on the best professional judgment of the permitting authority.

What did EPA propose? In the proposed rule, EPA introduced the concept of a "Permit Nutrient Plan" ("PNP"), and proposed that permits for all CAFOs would require the development and implementation of a PNP. For CAFOs not subject to the ELGs, the proposal called for the permitting authority to consider the need for a PNP.

The concept of a PNP, as opposed to the use of the term CNMP, was used by EPA to identify those specific aspects of a CNMP that would be required under