

comment period on this action. Any parties interested in commenting on this document should do so at this time.

**DATES:** Written comments must be received on or before August 22, 2002.

**ADDRESSES:** Written comments should be sent to: Robert Miller, Chief, Permits and Grants Section, Air Programs Branch (AR-18J), U.S. Environmental Protection Agency, 77 West Jackson Boulevard, Chicago, Illinois 60604.

**FOR FURTHER INFORMATION CONTACT:** Bryan Holtrop at (312) 886-6204, [holtrop.bryan@epa.gov](mailto:holtrop.bryan@epa.gov) or Rachel Rineheart at (312) 886-7017, [rineheart.rachel@epa.gov](mailto:rineheart.rachel@epa.gov).

**SUPPLEMENTARY INFORMATION:** For additional information see the direct final rule published in the rules section of this **Federal Register**. Copies of the documents relevant to this action are available for public inspection during normal business hours at the above address. (Please telephone Robert Miller at (312) 353-0396 before visiting the Region 5 Office.)

#### List of Subjects in 40 CFR Part 63

Environmental protection, Administrative practice and procedure, Air pollution control, Hazardous substances, Intergovernmental relations, Reporting and recordkeeping requirements.

**Authority:** 42 U.S.C. 7401, *et seq.*

Dated: June 27, 2002.

**Bharat Mathur,**

*Acting Regional Administrator, Region 5.*  
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## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Parts 122 and 412

[FRL-7250-2]

#### Notice of Data Availability; National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitations Guidelines and Standards for Concentrated Animal Feeding Operations

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Notice of data availability.

**SUMMARY:** On January 12, 2001 (66 FR 2959), EPA published a proposal to revise two regulations that address manure, wastewater, and other process waters generated by concentrated animal feeding operations (CAFOs). These two regulations are: The National Pollutant Discharge Elimination System

(NPDES) provisions that define which operations are CAFOs and establish permit requirements; and the Effluent Limitations Guidelines, or effluent guidelines, for feedlots (beef, dairy, swine and poultry subcategories), which establish the technology-based effluent discharge standards for CAFOs.

In the proposal, and in a subsequent notice of data availability published on November 21, 2001 (66 FR 58556), EPA solicited comment on various aspects of the proposed revisions and data used to analyze the proposed revisions. Due to additional data and comments received, EPA is considering changes to certain aspects of the proposed rulemaking. Specifically, today's notice presents information on the following: Establishing alternative regulatory thresholds for chicken operations using dry litter management practices; the potential creation of alternative performance standards to encourage CAFOs to implement new technologies; and financial data and changes EPA is considering to refine its economic analysis models. Today, EPA is making these data and potential changes available for public review and comment.

**DATES:** You must submit comments by August 22, 2002.

**ADDRESSES:** You are encouraged to submit your comments electronically to [CAFOS.comments@epa.gov](mailto:CAFOS.comments@epa.gov). Electronic comments should specify docket number W-00-27 and must be submitted as an ASCII, Microsoft Word, or WordPerfect file avoiding the use of special characters and any form of encryption. Electronic comments on this action may be filed online at many Federal Depository Libraries. No confidential business information (CBI) should be sent via e-mail.

You also may submit comments by mail to: Concentrated Animal Feeding Operation Proposed Rule, Office of Water, Engineering and Analysis Division (4303T), USEPA, 1200 Pennsylvania Avenue, NW, Washington, DC 20460. Hand deliveries (including overnight mail) should be submitted to the Concentrated Animal Feeding Operation Proposed Rule, USEPA, EPA West Building, Room 6231, 1301 Constitution Avenue, NW, Washington, DC 20004. Please submit an original and three copies of your written comments and enclosures, as well as any references cited in your comments.

The public record for this action and the proposed rulemaking has been established under docket number W-00-27 and is located at 1200 Pennsylvania Avenue NW, Washington, DC. The record is available for

inspection from 8 a.m. to noon, Monday through Thursday, excluding legal holidays. For access to the docket materials, call (202) 566-1000 for the room number and to schedule an appointment. A reasonable fee may be charged for copying.

**FOR FURTHER INFORMATION CONTACT:** Renee Selinsky Johnson at (202) 566-1077 or at the following e-mail address: [johnson.renee@epa.gov](mailto:johnson.renee@epa.gov).

#### SUPPLEMENTARY INFORMATION:

##### Contents of This Document

- I. Purpose of this Notice
- II. Background
  - A. Proposed Rule
  - B. Notice of Data Availability
- III. Thresholds for Chicken Operations Using Dry Litter Management
- IV. Voluntary Alternative Performance Standards for Innovative Technologies
- V. Changes to the Economic Analysis
  - A. Changes to Model Framework and Assumptions
  - B. Changes to the Baseline Financial Data
  - C. Preliminary Analysis Results

#### I. Purpose of This Notice

There are three main components to today's notice: (1) Discussion of potential new regulatory thresholds for chicken operations with dry litter management practices; (2) the potential creation of alternative performance standards to encourage CAFOs to implement new wastewater treatment technologies and/or practices; and (3) discussion of new financial data and changes EPA is considering to refine the economic analysis models used to evaluate economic effects that potential regulatory options may have on CAFOs.

For chicken operations with dry litter management, EPA is considering alternative approaches for determining the number of broilers or laying hens that would be considered equivalent to 1,000 animal units (AU). In the proposed rule, EPA presented a scenario where 100,000 chickens would be considered equivalent to 1,000 AU. In today's notice, EPA presents two possible alternative approaches for setting this metric for chicken operations.

EPA's long-term environmental vision for CAFOs includes continuing research and progress toward environmental improvement. The Agency believes that individual CAFOs can be encouraged to voluntarily develop and install new technologies and management practices equal to or better than those required by baseline best available technology economically achievable (BAT) and new source performance standards (NSPS) effluent guidelines regulations. Further, EPA recognizes that some CAFOs, as well as land grant universities, state

agencies, equipment vendors, and agricultural organizations, are working to develop new technologies that achieve reductions in nutrient and pathogen losses to surface water, ammonia and other air emissions, and groundwater contamination. The development of new technologies offers the potential to match or surpass the pollutant reduction that would be achieved by compliance with limits and standards promulgated in the final CAFO rule.

Today's notice includes EPA's preliminary approach for developing a voluntary program intended to facilitate the development of new technologies and management practices that perform as well as or better than BAT (and NSPS) and may also help address the multimedia environmental issues confronting CAFOs. A key tenet of these programs is that CAFOs would voluntarily choose an alternative BAT/NSPS performance standard as the basis for their technology-based NPDES permit limits (e.g., inclusion of effluent limitations in their NPDES permits that are different from those based on the baseline effluent guideline).

Data that EPA is considering to use in the economic analysis models include both farm level and enterprise level financial data, as well as data and information pertaining to various modeling assumptions used by EPA. The financial data include data from the U.S. Department of Agriculture (USDA), the Food and Agricultural Policy Research Institute (FAPRI) at the University of Missouri, and the National Cattlemen's Beef Association (NCBA). Other enterprise level data for some sectors were collected by EPA from various land grant universities. In today's notice, EPA describes the set of financial data that EPA is considering using to depict baseline financial conditions at regulated CAFOs. This notice also discusses methodological changes EPA is considering, based on comments received on the proposed rule and the previous notice of data availability (the "2001 Notice"), to the analytical framework used to evaluate economic effects that potential regulatory options may have on CAFOs. Among the changes being considered are the inclusion of enterprise level financial data, inclusion of additional measures of profitability to evaluate post-regulatory effects at the enterprise level, and a few ancillary assumptions. These data and analytical changes are in addition to those already presented by EPA in the 2001 Notice.

EPA is seeking further public comment on the specific data and issues identified in this notice. However, EPA

is seeking public comment only on these specific data and issues. Nothing in today's notice is intended to reopen any other issues discussed in the CAFO proposal or the 2001 Notice, or to reopen the proposal in general for additional public comments. EPA is continuing to review the comments already submitted on the proposed rule and the 2001 Notice and will address those comments, along with comments submitted on the data and issues identified in today's notice, in the final rulemaking.

## II. Background

### A. Proposed Rule

On January 12, 2001 (66 FR 2959), EPA published proposed revisions to the existing effluent guidelines for CAFOs (40 CFR Part 412) and to certain provisions of the NPDES regulations applicable to CAFOs. Effluent guidelines and standards for CAFOs establish the technology-based effluent discharge and performance standards for both existing and new sources for each of the beef, dairy, swine and poultry subcategories. The NPDES permit program for CAFOs defines which animal feeding operations (AFOs) are CAFOs and need to obtain a NPDES permit, and establishes the specific requirements that must be complied with under a permit. These two existing interrelated regulations affecting CAFOs were originally promulgated in the 1970s.

#### 1. Effluent Limitations Guidelines and Standards

Under the current effluent guidelines regulations, CAFOs are prohibited from discharging process wastewater, except when rainfall events cause an overflow from a facility designed, constructed, and operated to contain all process-generated wastewater plus the runoff from a 25-year, 24-hour rainfall event.

EPA proposed requiring all existing and new CAFOs spreading manure on cropland to limit the application rate to the nitrogen needs of the crops and, for those fields where additional constraints are considered necessary, to also ensure that the manure application rate would not exceed the phosphorus needs of the crops.

EPA also proposed to require all existing beef and dairy operations to implement controls (e.g., retrofitting lagoons and ponds with impervious liners) to minimize leaching to ground water if the ground water beneath the production area has a direct hydrologic connection to surface water. EPA proposed requiring all existing swine, veal, and poultry CAFOs to eliminate all

discharges from the animal production area (i.e., for these sectors, eliminating the effluent guidelines provision that allows for certain overflows due to chronic or catastrophic rainfall).

EPA proposed that newly constructed CAFOs should meet the same requirements as were proposed for existing CAFOs, except that new swine, veal and poultry operations also would need to implement ground water controls where there is a direct hydrologic connection to surface water.

For more information on the proposed technology options, see section VIII of the proposed rule (66 FR 3050-3070). Section VIII of the proposed rule also describes certain other technology options that were considered by EPA at proposal, such as prohibiting manure application on frozen, snow-covered, or saturated ground; mandatory use of anaerobic digester systems; composting; and surface water monitoring requirements.

#### 2. NPDES Regulations

Under the current NPDES regulations for CAFOs, a "three-tier" structure is used to determine which animal feeding operations (AFOs) also meet the criteria under which they are considered concentrated animal feeding operations (CAFOs). Under this current NPDES structure, (1) all AFOs with more than 1,000 AU are automatically defined as CAFOs; (2) AFOs with 301 to 1,000 AU are defined as a CAFO only if they meet certain conditions; and (3) AFOs with 301 to 1,000 AU that do not meet these conditions, and all AFOs with 300 or less AU, become CAFOs only if they are designated as such by the permitting authority. (See 40 CFR 122.23 and Part 122, Appendix B).

EPA proposed several alternatives for revising the existing CAFO definition. Under one scenario, the current "three-tier" structure would be retained, but there would be certain changes to the conditions that define an operation as a CAFO in the middle tier (i.e., 300-1,000 AU). EPA also proposed an alternative regulatory approach that would replace the existing "three-tier" structure with a "two-tier" scenario for defining operations as CAFOs. Under the "two-tier" scenario, all animal feeding operations with more than a specified number of animals would be defined as a CAFO. EPA considered several potential thresholds that could be set under the two-tier scenario.

EPA also proposed to revise the definition of a CAFO to expressly include chicken operations using dry litter management techniques, swine nurseries, and heifer operations. EPA proposed to explicitly address manure

application on land under the control of the CAFO, and considered alternatives for collecting information regarding manure transferred to off-site locations. The proposed rule also considered certain changes that affect which entities would be required to obtain NPDES permits, and proposed to add provisions requiring CAFOs that cease operation to retain their NPDES permits until all wastes that were generated by the operation no longer have the potential to reach waters of the United States.

For more information on the proposed changes to the NPDES regulations, see section VII of the proposed rule (66 FR 2993–3050).

#### B. Notice of Data Availability

On November 21, 2001 (66 FR 58556), EPA published a notice of data availability presenting a summary of new data and information submitted to EPA during the public comment period on the proposed CAFO regulations, including data received from USDA. The 2001 Notice also discussed new data and changes being considered to refine the cost and economic analysis models, and to improve estimates of pollutant reductions and monetized benefits that would result from changes to the CAFO regulations. EPA presented information on potential changes that would enhance flexibility for using State NPDES and non-NPDES CAFO programs, discussed options intended to encourage broader implementation of environmental management systems, and described certain refinements to the CAFO definition that were under consideration.

### III. Thresholds for Chicken Operations Using Dry Litter Management

EPA's existing effluent guidelines for CAFOs apply to chicken operations with 30,000 laying hens or broilers when the facility has a liquid manure handling system, and to chicken operations with 100,000 laying hens or broilers when the facility has unlimited continuous flow watering systems. (See 40 CFR Part 412.10). Under the proposed rule, the CAFO regulations would be revised to remove language referring to the type of manure handling or watering system employed at laying hen and broiler operations and would, as a result, expand the scope of the rule to also address chicken operations with "dry" litter management systems. (The term "dry" does not mean that there are no wastewaters associated with these types of operations. For example, poultry waste includes manure, poultry mortalities, litter, spilled water, waste feed, water associated with cleaning

houses, runoff from litter stockpiles, and runoff from land where manure has been applied.) As proposed, the revised CAFO regulations would establish 100,000 chickens as equal to 1,000 AU. (See 66 FR 3010–3012).

At proposal, EPA presented two alternative ways to structure the NPDES regulations and define which animal feeding operations are CAFOs. Under EPA's proposed "two-tier" structure, all AFOs with more than a certain AU threshold level would be defined as CAFOs, and those with fewer than the threshold would become CAFOs only if they were designated as such by the permitting authority. Under this alternative, with a threshold of 500 AU, for example, all chicken operations with more than 50,000 chickens would be defined as a CAFO. Under this two-tier structure with the threshold set at 500 AU, EPA estimates 9,300 broiler operations and 1,000 laying hen operations would be automatically defined as CAFOs.

In the second alternative discussed at proposal, EPA proposed to retain the current "three-tier" structure. Under this three-tier scenario, operations with more than 100,000 chickens would be automatically defined as a CAFO, and operations with 30,000 to 100,000 chickens would be defined as a CAFO only if they met certain conditions. Under the three-tier structure, EPA estimates 2,950 broiler operations and 550 laying hen operations would have more than 1,000 AU and would automatically be defined as CAFOs. EPA also estimates an additional 600 broiler operations and 50 laying hen operations would be defined as middle-tier CAFOs (i.e., those with 301–1,000 AU) using EPA's current middle-tier criteria. See 66 FR 2996–3004 for additional discussion of the two-tier and three-tier regulatory structures.

In developing the proposed rule, EPA evaluated several methods for equating poultry operations with dry litter management to the existing definition of an animal unit (See 66 FR 3010–3012). One factor considered is that the existing CAFO regulations already apply to chicken operations with 100,000 laying hens or broilers when the facility has unlimited continuous flow watering systems. Another factor considered relates to the manure generated by chickens in comparison to the manure generated by beef cattle. The average daily manure generation from 100,000 broilers and laying hens (EPA's proposed metric for the number of chickens being equal to 1,000 AU) is comparable to the average daily manure generation from 1,000 beef cattle (1,000 AU). Using manure waste

characterization data from USDA's Agricultural Waste Management Field Handbook, EPA's analysis indicated a range of 82,000 laying hens to 111,000 broilers—or approximately 100,000 chickens—as being equivalent to 1,000 AU. EPA's methodology for calculating these values is presented in the record. This analysis suggested a similar threshold for chickens whether basing the comparison of manure on the amount of nitrogen, phosphorus, or biochemical oxygen demand (BOD<sub>5</sub>) in the manure.

EPA is considering other thresholds both higher and lower than the 100,000-chicken threshold presented in the proposed rule.

Several comments were received on EPA's proposed thresholds for chicken operations, asserting EPA should maintain a distinction between laying hens and broilers. Other comments asserted that EPA should determine the value (i.e., number of birds) equating to 1,000 AU by evaluating phosphorus content in the manure on an annual basis as opposed to a daily basis. For example, these comments further assert that estimates of the annual phosphorus production should reflect that five to six flocks of broilers are produced per year, and should not assume phosphorus production continues during the periods of the year (i.e., cleanout time between flocks when no broilers are present) when no manure is generated. Using an approach for setting the threshold that compares the phosphorus produced by chickens annually to the phosphorus produced by beef cattle, based on manure waste characterization data from USDA's Agricultural Waste Management Field Handbook, EPA would estimate the 1,000 AU equivalent as 125,000 broilers (in contrast to the 111,000 value estimated using the daily manure generation rates). EPA's methodology for calculating these values (e.g., average bird live weight; typical number of flocks produced per year; average time between bird placements) is presented in the record. Using an alternative threshold of 125,000 broilers, EPA estimates 1,800 broiler operations would have greater than 1,000 animal units. Because laying hens typically are kept at CAFOs for approximately 94 weeks of production, they continue to produce manure throughout the year and EPA's previous estimate of 82,000 laying hens as being equivalent to 1,000 AU remains unchanged.

Additional information regarding the nutrient and BOD<sub>5</sub> content of beef and chicken manure can be found in section 17 of the public record for the CAFO rulemaking. The USDA data used by

EPA to estimate the number of broiler and laying hen operations that would have more than 1,000 AU under the alternative thresholds discussed in this notice are included in section 19.1 of the record. Detailed information on EPA's analyses and assumptions appears in section 19.5 of the record. Section 21 of the record contains public comments received on the proposed rule and 2001 Notice regarding the threshold for chicken operations. See the **ADDRESSES** section of this notice for information on how to obtain access to the public record for the CAFO rulemaking.

EPA is considering whether the 1,000 AU equivalent for broilers should remain as proposed at 100,000 broilers, or whether it should be changed to either 125,000 broilers. EPA is also considering whether the 1,000 AU equivalent for laying hens should remain as proposed at 100,000 laying hens, or whether it should be changed to 82,000 laying hens. EPA notes that the thresholds codified in the current regulations for operations with liquid manure handling systems or unlimited continuous flow watering systems may remain unchanged in the final rule. EPA solicits comment on these alternative thresholds for broiler and laying hen operations with dry litter management systems, the assumptions and data used to derive the thresholds (e.g., average bird liveweight; typical number of flocks produced per year; average time between bird placements), and if other alternative thresholds (and their technical basis) exist that may be appropriate for these operations.

#### **IV. Voluntary Alternative Performance Standards for Innovative Technologies**

EPA's long-term environmental vision for CAFOs includes continuing research and progress toward environmental improvement. The Agency believes that individual CAFOs should be encouraged to voluntarily develop and install technologies and management practices that achieve pollutant reductions equivalent to or better than those required by the baseline effluent guidelines regulations.

Further, EPA recognizes that some CAFOs, as well as USDA, land grant universities, equipment vendors and agricultural organizations, are working to develop new technologies that achieve reductions in nutrient and pathogen losses to surface water, ammonia and other air emissions, and ground water contamination. The development of new technologies offers the potential to match or surpass the pollutant reductions that would be

achieved by compliance with limits and standards in the final CAFO rule.

EPA received suggestions from a number of stakeholders on the merits of creating a framework for alternative performance standards. Several stakeholders believe that the current and proposed effluent guidelines discourage the use of innovative treatment and pollution prevention technologies and that EPA should include incentives to encourage CAFOs to use improved technologies that would protect all environmental media (particularly surface water, but also air and ground water). A number of commenters expressed support for the inclusion of voluntary alternative technologies which are equivalent to or better than BAT effluent guidelines (or NSPS requirements for new CAFOs), and specifically requested a provision that would allow CAFOs to discharge treated process wastewater generated from the production area of the CAFO.

A number of stakeholders commented that EPA should include controls for pathogens or antibiotics, as well as atmospheric emissions of ammonia, methane, or hydrogen sulfide. Other commenters suggested that adding flexibility in the rule to allow for the discharge of treated process wastewater could lead to better approaches for addressing environmental concerns in all environmental media, including air, ground water, and surface water.

In view of these suggestions, today's notice presents two approaches, described below, to encourage the development of new technologies and management practices that achieve pollutant reductions equivalent to or better than those that would be achieved by the baseline BAT (and NSPS) that will be promulgated in the final rule, and possibly also help address multimedia issues related to air emissions and ground water. Under a Production Area Approach, alternative performance standards would focus on the manure and wastewater discharges from the CAFO production area and CAFOs would be allowed to discharge process wastes that have been treated by technologies that result in equivalent or better pollutant removals than would be achieved under the baseline BAT standard. Under the Whole Farm Approach, CAFOs would conduct a site-specific "whole farm" multimedia review to target optimal pollutant load reduction and pollution prevention opportunities for the production and land application areas. The Whole Farm Approach could include an allowance for wastewater discharge from the production area as described for the Production Area Approach, but most

importantly, would require the CAFO to evaluate and implement whole farm improvements through the use of an audit process as a condition for obtaining alternate effluent limits.

A key tenet of these approaches is that CAFOs would voluntarily choose to comply with an alternative BAT/NSPS performance standard as the basis for their technology-based NPDES permit limits (e.g., inclusion of effluent limitations in their NPDES permits that are different from those based on the baseline effluent guideline, to be established by the NPDES permitting authority on the basis of best professional judgement). CAFOs would not be required to enter the alternative standards program. A CAFO choosing not to participate in the alternative standards program would instead be subject to the baseline BAT limitations (discussed below in section IV.A). EPA previously used a similar approach in the effluent guidelines for the pulp and paper industry. See 63 FR 18504, 18593-18611 (April 15, 1998).

EPA solicits comment on the concepts presented in this notice for creating alternative performance standards to encourage CAFOs to implement new technologies. In sections IV.B, IV.C, and IV.D below, EPA also solicits comment specifically on certain aspects related to the Production Area and Whole Farm Approaches for creating alternative performance standards, and on the potential incentives that may be made available to CAFOs participating in an alternative performance standards program.

##### *A. Baseline BAT*

Under the current effluent guidelines regulations, CAFOs are prohibited from discharging process wastewater, except when rainfall events cause an overflow from a facility designed, constructed, and operated to contain all process-generated wastewater plus the runoff from a 25-year, 24-hour rainfall event. The limits included in the effluent guidelines are based on the use of storage ponds and lagoons to contain the process wastes and runoff, but they do not prevent CAFOs from using alternative technologies, as long as those technologies also meet zero discharge or the containment requirement. These limitations were established on the basis of factors specified in Clean Water Act sections 304(b) and 306(b), including the cost of achieving the effluent reductions and any non-water quality environmental impacts. EPA continues to assess the large number of comments and data received on the proposed rule regarding the appropriate technology basis for the BAT/NSPS requirements

that will be promulgated in December 2002 (referred to in this notice as the "baseline BAT").

#### B. Production Area Approach

The Production Area Approach focuses on manure and wastewater discharges from the CAFO production area. Under this approach, CAFOs would be allowed to discharge process wastewater that has been treated by technologies that the CAFO demonstrates will result in equivalent or better pollutant removals than would be achieved by the baseline BAT standard. The requirements applying to wastewater discharges could also be coupled with either a regulatory provision or non-regulatory guidance for participating CAFOs to develop a plan for achieving improvement in multiple environmental media.

As discussed above, the baseline BAT standard, though nominally zero discharge, allows for untreated overflow discharges if the system is designed, constructed and operated to contain process wastewater plus the runoff from a 25-year, 24-hour rainfall. Thus, to demonstrate that the alternative technology would achieve equivalent or better pollutant reductions than baseline BAT requirements, the CAFO would be required to submit a technical analysis, which would include calculating the mass-based pollutant reductions based on the *site-specific modeled performance* of the baseline BAT system (currently, defined as a 25-year/24-hour storage lagoon). Under this approach, a computer simulation model could be used to evaluate site-specific or region-specific climate data, along with wastewater characterization data, to determine the mass-based pollutant discharge that would be projected for a system designed, constructed and operated to achieve compliance with the baseline BAT standard. The model would evaluate the daily inputs to the storage system, including all process wastes, direct precipitation, and runoff. It would also evaluate the daily outputs from the storage system, including losses due to evaporation, sludge removal, and the removal of wastewater for use on cropland at the CAFO or transport off site. The model would be used to predict the overflow from the BAT system that would occur over a 25-year period, and these overflow predictions would be used to determine the median annual predicted overflow over the 25 years evaluated by the model. Site-specific or other appropriate pollutant characterization data for the wastewater from the waste storage system (i.e., the overflow) would then be coupled with the overflow volume

output from the model described above to predict the mass pollutant discharge that would occur from a baseline BAT system. CAFOs would be required to meet NPDES permit conditions that result in equivalent or improved pollutant reductions, as compared to the predicted mass discharge from overflow of the baseline BAT system, for example, on an annual basis or over the lifetime of the permit. If a CAFO elected to use this approach it would be meeting the same limitations as a CAFO under the baseline BAT, but expressed in a different fashion (e.g., numeric limits on a continuous discharge versus a limit of zero discharge with an allowance for discontinuous overflows). To illustrate this type of analysis, EPA has prepared an example evaluation using model farm characteristics. This example is available in section 19.6.2 of the rulemaking record. Land application activities would be required to correspond to an approved nutrient management plan.

A variation of this approach could be based on a more holistic approach that considers other environmental media besides discharges to surface water. Under this approach, CAFOs would be authorized to comply with alternative BAT/NSPS performance standards if they implement technologies and management practices that result in equivalent or improved pollutant reductions, including all media. CAFOs that achieve significant reductions in air emissions or ground water discharges for a pollutant would qualify for less stringent limits on discharges to surface water to be established on the basis of best professional judgement. In essence, EPA would be using the authority of Clean Water Act section 304(b) to establish alternative BAT requirements that address the non-water quality environmental impacts from controls of discharges to other media, as well as the costs of those controls. One challenge with this approach is how to determine "equivalence" across environmental media.

This approach would essentially divide up CAFOs within a subcategory into different segments. Those CAFOs which have undertaken or will voluntarily undertake actions to control air emissions or ground water discharges can be distinguished from facilities which have not under Clean Water Act sections 304(b) and 306(b), because they face different economic achievability concerns related to the costs of compliance with the effluent guidelines, or because their activities will have fewer non-water quality environmental impacts. EPA adopted a similar set of alternate requirements for

the pesticide chemicals formulating, packaging and repackaging industry when EPA found that facilities using an alternative pollution prevention approach would reduce air emissions. See 61 FR 57518, 57525-26 (November 6, 1996).

EPA solicits comment on the following: (1) The criteria and process that would be used under the Production Area Approach to demonstrate performance equivalent to or better than the baseline BAT technology; (2) the appropriate methodology for translating annual mass discharge estimates into an NPDES permit limitation; (3) approaches for comparing the intermittent overflow discharge that would occur under the baseline BAT requirement to the continuous treated discharge that may be allowed under an alternative performance standard; and (4) whether a holistic approach that considers pollutant reductions across all environmental media would be appropriate, how equivalence across media could be determined operationally and embodied in NPDES permit limits, on what statutory basis could EPA distinguish CAFOs that employ the holistic approach, and whether the NPDES permit could and should mandate compliance with the pollutant reductions achieved across media.

#### C. Whole Farm Approach

The Whole Farm Approach is based on conducting a site-specific multimedia review to target optimal pollutant load reduction and pollution prevention opportunities for both the production and land application areas. This approach could include an allowance for wastewater discharge from the production area as described for the Production Area Approach, but most importantly, would require the CAFO to evaluate and implement whole-farm environmental improvements through the use of a site-specific audit process as a condition for qualifying for alternative BAT limits. At a minimum, as part of the audit, the CAFO would be required to use a mass-balance approach to address site-specific concerns (e.g., karst geology, flood plains) and to quantify their existing releases; identify the potential to reduce losses from the production area, land application area, and transfer of manure off site; and identify specific opportunities to reduce the largest releases (to surface water, ground water, air, or land). In general, EPA would expect the CAFO to evaluate releases that occur at the point of generation first to minimize or eliminate waste

production and air emissions, followed by an evaluation of the waste handling and management systems, and ending with an evaluation of land application and off-site transfer operations.

CAFOs would need to develop and implement a plan for the operation that generates improvement across multiple environmental media. The plan would identify the specific technologies or practices that will be installed or implemented to achieve the estimated pollutant reductions, and provide criteria that demonstrate effective performance of these technologies or practices that could be used to determine compliance. The specific approaches used would be expected to vary somewhat among operations and would be selected by the CAFO as being effective for the particular operation. Potential approaches could include:

- Implementation of feeding strategies (to reduce or eliminate nutrients, hormones, and/or antibiotics);
- Installation of new and innovative waste management technologies;
- Changes to animal housing;
- Changes to the type and frequency of cleaning operations;
- Controls for the existing waste management system (e.g., storage liners, covers);
- Energy recovery systems;
- Centralized waste treatment or processing;
- Stabilization and production of value-added products;
- Changes to land application methods (e.g., erosion control measures, incorporation/injection);
- Controls for air emissions (e.g., ammonia, particulate matter, methane, hydrogen sulfide);
- Implementation of methods to ensure off-site land application follows nutrient management plan approach; and
- Implementation of a mortality disposal plan.

The implementation plan would need to present data to demonstrate that the plan results in whole-farm reductions in pollutant releases to surface waters equivalent to or better than would be achieved by the baseline BAT requirements. As discussed under the Production Area Approach, this would result in equivalent BAT effluent limitations, but expressed in a different fashion.

Alternatively, the Whole Farm Approach could also be based on a more holistic measure of pollutant reduction and allow trade-offs among reductions in discharges to different media, as long as the plan resulted in equivalent or improved pollutant reduction overall. As discussed above in section IV.B,

such an approach would need to determine how to compare reductions across environmental media. As discussed under the Production Area Approach, EPA would utilize its statutory authority to distinguish between facilities that voluntarily achieve reductions to other media and those that do not, on the basis of cost, non-water quality environmental impacts, or other factors.

To illustrate the Whole Farm Approach, EPA has prepared a hypothetical example process evaluation using model farm characteristics. This example is available in section 19.6.2 of the record.

The whole farm approach offers many benefits to the CAFO and to the environment. By targeting reductions of pollutant releases to all media, the CAFO may find ways tailored to the individual site to more cost-effectively minimize environmental impacts. The approach offers flexibility in choosing an environmental system that is most effective and affordable for the specific site, and encourages CAFOs to go beyond the minimum regulatory requirements. This type of program also offers opportunities for state and local partnerships to evaluate location-specific issues and develop targeted approaches.

A potential obstacle to implementing new technologies is the tension between a requirement that CAFOs comply immediately with BAT at the time of permit issuance, and the time that may be required to develop and implement a new technology. While immediate compliance may promote, in the short term, prompt implementation of BAT technologies, EPA is concerned that such a requirement can also discourage CAFOs from fully investigating and implementing alternative technologies that may be better than the baseline BAT technology. EPA is considering, as part of the Whole Farm Approach only, providing CAFOs who choose to implement whole-farm multimedia approaches under the alternative standards program additional time to implement and meet the alternative performance standards. In this way, EPA hopes to provide an incentive for CAFOs to implement whole-farm reductions in pollutant releases. EPA used a similar approach in the effluent guidelines for the pulp, paper, and paperboard industry. Facilities were required to meet BAT reflecting existing practice in the short-term in order to implement a more aggressive BAT (not economically achievable in the short-term) at a later date.

While EPA public recognition programs already exist, the Agency

believes that it may also be appropriate to develop and implement a program unique to this industry as an incentive to invest in new technologies and whole-farm approaches to reducing pollutant releases. As part of a public recognition program, EPA could establish criteria under which CAFOs would qualify to receive public recognition on an annual basis. In addition to commitments leading to and achievement of the limits specified or additional reductions associated with a whole farm approach, such criteria would likely include some form of periodic compliance audit and could be structured to give CAFOs flexibility to implement an environmental management system approach. EPA would then recognize the qualifying CAFOs each year through a public event.

EPA solicits comment on the following: (1) The criteria and process that would be used under the Whole Farm Approach to demonstrate pollutant reductions equivalent to or better than the baseline BAT technology; (2) the appropriate methodology for translating the actions identified in the plan for the Whole Farm Approach into an NPDES permit limitation; (3) approaches for comparing the intermittent overflow discharge that would occur under the baseline BAT requirement to the whole-farm actions CAFOs propose to undertake; (4) the length of time CAFOs should be afforded to implement whole-farm pollutant reduction actions; and (5) the possible incentives described in this section for CAFOs implementing the Whole Farm Approach, the applicable criteria used to qualify for the incentives, the type of public recognition that would be afforded, and the frequency for recurring public recognition.

#### *D. Process and Incentives for Participating in Alternative Standards*

CAFOs interested in pursuing either alternative standards approach should have a good compliance history. The facility would also be expected to conduct an analysis of their operation (as described above in sections V.B. and V.C.) and prepare a proposed alternative program plan including the results of the analysis, the proposed method for implementing new technologies and practices, and the results demonstrating that these technologies and practices perform equivalent to or better than baseline BAT. This plan would be included with their permit application or renewal, and would be incorporated into the permit. EPA solicits comment on: (1) The process and criteria that

should be used by CAFOs to apply and qualify for participation in the alternative performance standards program; (2) whether CAFOs that have a deadline for "future BAT" under an alternative performance standards program should have interim milestones incorporated in their permits towards meeting the ultimate BAT standard; (3) how the program should address CAFOs that volunteer to participate in the alternative standards program, yet later back out of the alternative standards program without implementing the changes outlined in their plan; (4) on the length of time that CAFOs should be afforded for development and implementation of the plan; and (5) what should the BAT basis be for requirements during the period of development of the alternative standards program (e.g., "existing effluent quality," as EPA used for the pulp and paper effluent guidelines, or some other basis).

CAFOs potentially may derive substantial benefits from participation in the alternative standards approach, through greater flexibility in operation, increased good will of neighbors, reduced odor emissions, and potentially lower costs. EPA is also exploring opportunities for other possible incentives to encourage participation in this program. EPA solicits comment on the possible incentives discussed in this notice, and invites suggestions for other incentives that should be made available.

## V. Changes to the Economic Analysis

This section presents changes that EPA is considering to the methodology and underlying financial data that it uses to assess the economic effects of the final regulations to CAFOs. Many of these changes reflect comments and new data that EPA has obtained since proposal, which were broadly described in the 2001 Notice. Today, EPA presents additional information on the approach and data that would be used for an economic analysis of the final rule. Section V.A of this notice describes the modeling framework and changes being considered to assess financial effects to regulated CAFOs. Section V.B of this notice describes the financial data that EPA is considering using to depict baseline conditions at model CAFO facilities. Section V.C discusses preliminary results of analyses using these alternative data and approaches.

### A. Changes to Model Framework and Assumptions

EPA expects the economic analysis for the final rule will retain the general modeling framework that the Agency

used to assess economic effects for the proposed rule (see 66 FR 3079–3103), with the modifications discussed in the 2001 Notice (see 66 FR 58577–58591). The 2001 Notice describes a range of methodological changes and financial data EPA was considering using to improve its analysis. Today's notice provides further information on the specific changes being considered for the modeling framework and financial data EPA will use to analyze the regulatory options for the final rule.

#### 1. Farm Level Analysis

The farm level analysis that supports the final rulemaking is expected to retain the same general framework used for the proposed rule. Specifically, financial impacts are assessed using a sales test, discounted cash flow analysis, and a debt-asset test. This evaluation is conducted using farm level financial data that are described in Section V.B of this notice and are available in EPA's record. These farm level data reflect income and cost information spanning an operation's primary livestock production, as well as secondary livestock and crop production, government payments, and other farm-related income. As conducted for the proposed rule, EPA would divide the resultant regulatory impacts into defined categories. Operations with estimated financial effects that are "affordable" or "moderate" would not be considered to be vulnerable to closure post-compliance and would, therefore, be considered to indicate economic achievability. Operations with estimated financial "stress" would be considered to be vulnerable to closure and may not be considered to indicate economic achievability, subject to other considerations.

To address public comments submitted to EPA on the overall analysis, EPA is considering making three general changes to its analytical framework at the farm level.

First, for the final analysis, EPA proposes to use a sales test that would use pre-tax incremental cost, as opposed to costs that take into account potential tax savings (post-tax), which was assumed at proposal. These pre-tax costs would be compared to total farm level revenues and that ratio would be used as an initial screener to determine the need for additional analysis using EPA's discounted cash and debt-asset tests.

Second, EPA is considering using alternate baseline debt and asset information for several livestock sectors (beef, heifer, veal, dairy, and hog) that EPA has obtained since proposal and is

considering a change to the debt-asset threshold values that would indicate financial stress for these sectors. Consideration of alternative debt and asset data for these sectors is consistent with recommendations by National Cattlemen's Beef Association (NCBA), the National Milk Producers Federation (NMPF), and the National Pork Producers Council (NPPC) and other industry commenters. Data submitted to EPA by NCBA and the Food and Agricultural Policy Research Institute (FAPRI) during the comment period indicate that larger, more intensive, or expanding cattle feeding operations tend to carry more debt than that assumed by EPA for the proposal. (Average USDA-reported data cover a broader range of farm types and sizes, including small farms and non-confinement operations that are not covered by the regulations.) Financial data submitted by NCBA and FAPRI indicate that confinement operations with more than 1,000 AU have baseline debt-asset levels greater than the USDA-recommended 40 percent, ranging from 60 percent to more than 70 percent in the beef, dairy and hog sectors. Since USDA's recommended 40 percent benchmark value may not be suitable for assessing the larger confined cattle, dairy, and hog operations affected by EPA's regulations, EPA is considering using an alternate threshold value for its debt-asset test for these sectors. Based on recommendations by NCBA submitted to EPA since the proposal, EPA is considering an 80 percent threshold value to indicate financial stress (see information submitted by NCBA at DCN 375047 in the record). EPA requests comment on the use of an alternative benchmark, such as 80 percent, for these sectors, if alternative data are used. EPA also requests comment on the use of alternative debt and asset data for the cattle, dairy, and hog sectors. These data are available in the rulemaking record (see: DCN 175044 and DCN 175038). (Due to limited data, EPA will continue to use USDA-reported average debt and asset information for the poultry sectors (broiler, egg, and turkey) and will continue to assess changes in the debt-asset test for these sectors assuming a 40 percent benchmark, as was done in the analysis for the proposed rule.)

A third change being considered for the final analysis involves the use of time series data to project available financial data onto a 10-year time horizon for EPA's discounted cash flow analysis. For the proposed rule, EPA used data projections by USDA. As discussed in the 2001 Notice, many

commenters disagree with the use of this data series as the basis for EPA's projections. To address these comments for the final analysis, EPA is considering using alternative timeline data from FAPRI (hog and poultry sectors), USDA (dairy sector), and NCBA (cattle sector) to project future earnings from the 1997 baseline data. A summary of these data and EPA's projected values based on these data is available for review at DCN 375084. The method that EPA uses to project the baseline data follows the approach used for the proposal analysis, as discussed in the Economic Analysis for the proposed rule.

## 2. Enterprise Level Analysis

For the final rule, EPA is considering expanding upon the analysis developed for the proposed rule by including an assessment of the financial effects on the enterprise level (e.g., an operation's livestock or poultry enterprise). This modeling change would address comments expressed by many commenters, including FAPRI, other land grant university researchers, and industry, as well as USDA, as discussed in the 2001 Notice (66 FR 58580–58582). These comments are supported by alternate enterprise level data that were submitted to EPA since proposal and presented in the 2001 Notice. An enterprise level analysis would recognize that a farm may be unwilling to cross-subsidize a continually failing livestock operation. Also, this approach would recognize that a failing enterprise with continuous cash flow problems would have limited access to financing for capital replacement and/or expansion, despite the health of the overall business. EPA is considering addressing this concern by including, as part of its final analysis, an assessment of changes in enterprise level profitability, in addition to the results of the farm level analysis. This analysis would be conducted using the enterprise level financial data described in Section V.B of this notice. A summary of these data are available at DCN 375084 in the rulemaking record.

Since the publication of the 2001 Notice, EPA has evaluated ways to incorporate an enterprise level analysis as part of its assessment. To evaluate enterprise level effects, EPA is considering using enterprise level net cash income to develop a discounted cash flow (DCF) estimate for each model enterprise over the 10-year time frame of the analysis. The net present value of cash flow is compared to the net present value of the total cost of the regulatory options. If the farm level analysis shows that the regulations impose "affordable" or "moderate" effects on the operation,

the enterprise level analysis would be conducted to determine whether the enterprise's cash flow is able to cover the cost of regulations. Over the analysis period, if an operation's livestock or poultry enterprise maintains a cash flow stream that both exceeds the cash costs of the BAT option (operating and maintenance costs plus interest) and also covers the net present value of the principal payments on the capital, EPA would assume that the enterprise will likely not close due to the CAFO regulations. EPA is also considering whether to add some measure of capital replacement costs to both its farm and enterprise level cash flow analysis. This analysis would be conducted on a pass/fail basis. If the net present value of cash flow minus the net present value of the BAT costs is greater than zero, the enterprise passes the test and the enterprise is assumed to continue to operate. If the net present value of cash flow is not sufficient to cover the net present value of the cost of the regulations, EPA would assume that the CAFO operator would consider shutting down its livestock or poultry enterprise.

The enterprise level analysis would build on the farm level analysis, evaluating effects at a farm's livestock or poultry enterprise. If the operation shows farm level impacts that are "affordable" or "moderate," then an enterprise level analysis is conducted to determine whether the operation's livestock or poultry enterprise remains viable. If enterprise level profitability remains positive over the period of the analysis, then the requirements would be determined to be economically achievable to the entire operation, as well as the livestock or poultry enterprise at the business. Enterprise level results would be presented in addition to estimated farm level effects (i.e., estimated farm impacts would comprise a subset of reported enterprise impacts) and both the farm and enterprise level results could be considered in determining economic achievability. Results indicating "affordable" or "moderate" farm level effects, but where enterprise level profitability is negative (i.e., the farm remains in business but the livestock or poultry enterprise at that business is discontinued) would be subject to further analysis before a final assessment is made. Operations that are determined to experience financial "stress" at the farm level would not be further evaluated because it is assumed that these facilities would go out of business. Additional information about this analysis is provided in the rulemaking record (DCN 375084).

## 3. Other Model Framework Changes

A summary of other changes being considered for the economic models is as follows. First, EPA is considering expanding the range of cost estimates per representative farm to account for variability across operations based on expected capital and management improvements needed, using data from USDA. These data were discussed in the 2001 Notice (see 66 FR 58572–58573). This change, along with other changes to expand EPA's costing approach, would effectively increase the number of cost models in EPA's analysis from about 200 to approximately 1,600 representative models. Second, for reasons outlined in the 2001 Notice, EPA may not include a debt feasibility test as part of its analysis of the final rule because a down payment assumption is not necessary given EPA's joint analysis of debt-to-asset ratios and cash flow (see 66 FR 58583–58584).

EPA continues to review options to consider additional potential cost offsets as part of its final analysis, including available cost-sharing and technical assistance to farmers under various Federal, State and local conservation programs. In particular, at the Federal level, new farm bill legislation passed this spring by Congress may significantly raise government expenditures for USDA conservation programs. For example, total Environmental Quality Incentives Program (EQIP) authorization for FY 2002–2007 is \$5.8 billion, ranging from \$400 million to \$1.3 billion per year over the period. This compares to current authorized levels of about \$200 million per year. The new legislation targets 60 percent of available EQIP funds to livestock and poultry producers, including confinement and grass-based systems (the latter accounting for about 70 percent of total livestock and poultry operations). The new legislation also removed the previous eligibility requirements under EQIP that restricted funding for certain structural practices to operations with fewer than 1,000 animal units (as measured by USDA), replacing this with an overall payment limitation of \$450,000 per producer over the authorized life of the 2002 Farm Bill. Under EQIP, cost sharing may cover up to 75 percent of the costs of certain conservation practices. The debate surrounding these increased funding levels included a focus on assisting producers to comply with environmental regulations.

EPA believes that this increased funding in EQIP and other USDA conservation programs may benefit

farmers and offset compliance costs incurred by some facilities under the CAFO regulations by increasing farm access to government cost-share dollars and increased technical assistance. EPA is considering two approaches that would incorporate cost share assumptions as part of EPA's CAFO level analysis. One approach would assume that cost sharing would cover up to 75 percent of the estimated capital compliance costs, spread out over the 10 year period of the analysis. A second approach would be similar to that adopted for a previous USDA and EPA impact analysis of confined animal operations and would assume average per-farm cost share information, as reported by USDA, as an offset to estimated capital costs. EPA solicits comment on these possible approaches and requests additional information to incorporate cost share assumptions as part of EPA's CAFO level analysis. Specifically, EPA requests information on how to account for uncertainty about actual program funding levels and uncertainty about which producers would obtain these funds and in what amount.

EPA will also continue to evaluate expected broader market level changes and adjustments. EPA is considering adjustments to the approach used for the proposal analysis by instead utilizing predicted price and quantity changes from EPA's market model analysis. The market model output information would be used to adjust the baseline financial data that are assumed for EPA's CAFO level analysis. Such an approach is more consistent with previous regulatory analyses conducted by EPA's effluent guideline program (e.g.: 65 FR 49686). EPA solicits comment on this modification to the approach used for proposal.

### *B. Changes to the Baseline Financial Data*

This section provides information specific to each animal sectors and describes the data that EPA is considering using, given the availability of financial data from a variety of sources. More detailed citations and the actual farm and enterprise level input data that EPA is proposing to use for its analyses are included in the rulemaking record, with a summary of these data available at DCN 375084.

#### 1. Overview

EPA received many comments on the financial data used to estimate CAFO level effects for the proposed rule. For proposal, EPA incorporated only farm level financial data into its analysis. For the final regulations, EPA is considering

using these farm level data for some animal sectors, substituting the 1997 USDA with other data received by EPA in conjunction with financial data specified at the enterprise level. This change in the approach and underlying data for the analysis is discussed in the 2001 Notice (see 66 FR 58585–58590). This section discusses the data that EPA is considering using for its final analysis.

For most sectors, EPA will continue to use available 1997 data from USDA reflecting financial conditions at the farm level, which EPA used for proposal. For two sectors—the cattle feeding and hog sectors—EPA is replacing the 1997 USDA data used for proposal with other data presented in the 2001 Notice. For cattle, EPA uses financial data provided by NCBA and FAPRI; for hogs, EPA uses farm level data from USDA. For the dairy and poultry sectors, EPA will continue to employ the 1997 USDA financial data used for proposal.

To address comments that criticize EPA's use of a single year of financial data to reflect baseline conditions, EPA is considering adjusting the financial data for the cattle, hog, and dairy sectors based on other available published data from USDA, FAPRI, and the land grant universities to average out conditions over multiple years. This approach involves incorporating other available data into the analysis to obtain average conditions over a multiple year time frame, as discussed in the 2001 Notice (see 66 FR 58590–58591). Due to lack of multiple years of financial data for the poultry sectors, EPA is not able to use this approach for those types of operations and is instead continuing to use a single year of data.

#### 2. Cattle Sector

As discussed in the 2001 Notice, EPA is considering not using the farm level data used for the cattle feeding sector used in the proposed rule analysis because of USDA concerns that these data are reflective of cow-calf operations and are not suitable for evaluating impacts to cattle feeding operations (see 66 FR 58585–58587). Instead, for its final analysis of impacts to the cattle feeding sector, EPA is considering using financial data submitted by NCBA and FAPRI (see: DCN 175044 and DCN 175038).

For operations with more than 1,000 AU, EPA would use data provided by NCBA for operations with an average of 52,000 head. For operations with between 300 and 1,000 AU, EPA would use data submitted by FAPRI for a 500-head feedlot enterprise. For the purposes of EPA's analysis, and because

of lack of additional available data, EPA assumes these data reflect baseline financial conditions for operations with fed cattle, veal, and heifers. Both the NCBA and FAPRI data represent enterprise level conditions. Farm level data are not available; therefore, EPA's analysis will assume that farm and enterprise conditions are the same. Information on EPA's rationale for selecting these data for its analysis is provided in the rulemaking record (DCN 375084).

To address recommendations that EPA average out baseline conditions to better account for year-to-year variability and pricing cycles (see 66 FR 58590), EPA uses the three years of survey data (1997–1999) provided by NCBA to calculate an average gross revenue value for its analysis using the sales test. Using the FAPRI data, which provides a 2000 base year along with several years of projected data (2000–2011), EPA uses the first 3-years of reported revenue (2000 to 2002) to obtain an average total revenue value. EPA uses average values to address recommendations expressed during the public comment period that EPA consider ways to depict financial conditions over multiple years, despite the availability of a single year of available data only in some cases (see 66 FR 58590).

Accounting for variability and changing conditions over multiple years is already incorporated into EPA's DCF analysis, which spans a 10-year time frame (1997–2006) and utilizes time series projections. This approach is consistent with that used for the 2001 proposal. For this analysis, EPA obtains net cash income estimates at both the farm and enterprise level for the base year (1997) from the available data. EPA uses NCBA data for 1997 for cattle operations with more than 1,000 AU; EPA derives a base year estimate from available FAPRI data for 2000, back-calculated to 1997 using the NCBA time series data.

EPA projects out the 1997 baseline data using NCBA-reported data on costs and returns to feedlot enterprises, expressed as dollars per marketed head to obtain a cash flow stream over the analysis period (1997 to 2006). NCBA's projection covers the 10-year analysis period, relying on historical data and pricing trends in the cattle cycle that correspond to the three years of data in their survey. EPA uses projected returns made by NCBA that were submitted to EPA, along with comments and alternate financial data on the proposed rule because both FAPRI and USDA baseline projections report net returns to cow-calf operations only, which do not

correspond to cattle feeding operations that are affected by the regulations; other cattle sector projections provided by FAPRI do not cover the 1997–2006 time period for EPA’s analysis. The method that EPA uses to project the baseline data follows the approach used for the proposal analysis, as discussed in the Economic Analysis supporting the 2001 proposal. From this projected cash stream, EPA estimates the net present value estimates for use in its DCF analysis. Additional information is available in the rulemaking record (DCN 375084).

For the debt-asset test, EPA is considering using FAPRI data on total assets and total liabilities for similar size operations in this sector, replacing USDA asset and liability data (used for proposal) with alternative FAPRI data. Use of these alternative data address concerns expressed during the public comment period about EPA’s assumptions of baseline debt and equity conditions at CAFOs and the data on debt and assets assumed for the proposed rulemaking, as discussed in the 2001 Notice (66 FR 58582–58583).

A summary of the baseline financial data that EPA is considering using for its final analysis of this sector is available for review at DCN 375084.

### 3. Dairy Sector

For dairy operations, EPA is continuing to use the 1997 USDA farm level data that were used for the proposal analysis. However, USDA recently submitted alternative farm level data for dairy operations from a 2000 USDA survey of this sector that EPA is considering using. These data include farm and enterprise level data and are available for review at DCN 375085. For the enterprise level analysis, EPA is considering using financial data obtained during the comment period from FAPRI (DCN 175038), as presented in the 2001 Notice (66 FR 58588–58589). Information on EPA’s rationale for selecting these data for its analysis is provided in the rulemaking record (DCN 375084).

To address recommendations that EPA average out baseline conditions to better account for year-to-year variability and pricing cycles (see 66 FR 58590), EPA would adjust the available 1997 gross income data prior to evaluating these data as part of EPA’s sales test using published USDA cost and returns data for U.S. dairy operations, spanning 1993 to 2000. These national level data are used to create an index of 8 years of farm level financial data from which to project out 1997 gross sales data, producing an average 8-year revenue value.

Accounting for variability and changing conditions over multiple years is already incorporated into EPA’s DCF analysis, which spans a 10-year time frame (1997–2006). This approach is consistent with that used for the 2001 proposal. For this analysis, EPA obtains net cash income estimates at both at the farm and enterprise level for the base year (1997) from the available data. At the farm level, EPA projects out the 1997 baseline data using USDA-reported net returns for the dairy sector to obtain a cash flow stream over the analysis period (1997 to 2006). At the enterprise level, EPA is considering using the 2000 net cash income for representative dairy operations submitted by FAPRI. The 2000 data are back calculated to 1997 and projected from 2000 to 2006 using the same USDA-reported net returns for the dairy sector used for farms. EPA continues to use USDA’s projections because other available projections do not regularly report net returns per milk cow or cover the 1997–2006 time period for EPA’s analysis. The method that EPA uses to project the baseline data follows the approach used for the proposal analysis. From this projected cash stream, EPA estimates the net present value estimates for use in its DCF analysis. Additional information is available in the rulemaking record (DCN 375084).

For the debt-asset test, EPA is considering using FAPRI data on total assets and total liabilities for similar size operations in this sector, replacing USDA asset and liability data (used for proposal) with alternative FAPRI data. Use of these alternative data address concerns expressed during the public comment period about EPA’s assumptions of baseline debt and equity conditions at CAFOs and the data on debt and assets assumed for the proposed rulemaking, as discussed in the 2001 Notice (66 FR 58582–58583).

A summary of the baseline financial data that EPA is considering using for its final analysis of this sector is available for review at DCN 375084.

### 4. Hog Sector

As discussed in the 2001 Notice, EPA is substituting the 1997 USDA data for hog operations used for proposal with other data obtained by EPA since proposal (see 66 FR 58587–58588). For the hog sector, EPA is not using the financial data that it used for the proposal analysis because of concerns expressed by USDA that 1997 data are not representative, because they reflect conditions where hog prices were unusually high. For the final analysis, EPA proposes to use alternate farm level and enterprise level data from USDA.

These cover a broader range of hog production types, including both farm and enterprise level conditions across three types of operations: Independent owner-operator farrow-finish and farrowing operations, contract grow-finish operations, and independent grow-finish operations. Information on EPA’s rationale for selecting these data for its analysis is provided in the rulemaking record (DCN 375084).

As anticipated by EPA in its 2001 Notice, initial data obtained by EPA from USDA were not readily analyzable by EPA and since the publication of the Notice, EPA has been working with USDA to resolve these issues and obtain additional data. Since the publication of the 2001 Notice, EPA has obtained data from USDA that report farm income excluding non-cash items that were included by USDA in the original submittal of these data. USDA’s new submittal also includes corresponding farm level data. These data are available in the rulemaking record (DCN 375064).

To average the available baseline financial data over multiple years, EPA adjusts the 1998 data using published USDA cost and returns data for both farrow-finish and grow-finish operations. These data cover 1995 to 1999. For this analysis, EPA uses national level data to create an index to develop 5-years of farm level financial data from which to extrapolate the 1998 farm data. The 1998 data are extrapolated over the time frame by apportioning costs and revenues on the basis of changes in costs, revenues, and returns reported for 1995 through 1999. This type of adjustment is discussed in the 2001 Notice (66 FR 58590–58591) and addresses comments received on the proposal analysis by averaging out baseline conditions to better account for year-to-year variability and pricing cycles. Using this approach and USDA data, EPA obtains the average farm level revenue values that EPA uses for its sales test.

EPA’s DCF analysis already incorporates changes over multiple years, spanning a 10-year time frame (1997–2006). This approach is consistent with that used for the 2001 proposal. However, net cash income reported by USDA for hog enterprises in 1998 continues to be negative in some cases. When these 1998 values were extrapolated to the 1995–1999 time period, as is done for the farm level data, cash flow on average over this 5-year period continues to be negative for some representative facilities. The primary reason for these negative income values is that 1998 was a year where hog prices dropped dramatically. At the farm level, USDA-reported net

cash income is positive, although likely low when compared to other years.

Because of persistently negative net cash income due to 1998 market conditions in the hog sector, EPA is unable to readily analyze these data for its analysis and is considering additional modifications to the data obtained by USDA. The principal modification to these data by EPA would be the adjustment of these data to reflect expected price rather than actual price for 1998 and 1999. The approach that EPA proposes to use is based on an approach recommended by USDA Economic Research Service (ERS) personnel. This recommended approach uses price projections from USDA's World Agricultural Supply and Demand Estimates (WASDE) published in 1997 as an indicator of expected 1998 price level in the hog sector. Applying this approach provides an expected price of about \$47 per hundredweight (cwt.) across all hog operations for that year, compared to the actual price of under \$35 per cwt. reported in 1998. Adjustment of the original USDA data is necessary to avoid the need for EPA to regard these operations as baseline closures and remove them from the analysis.

EPA is considering using the resultant expected price for 1998 to adjust the enterprise level data provided to EPA by USDA. (EPA would not adjust USDA-reported farm level data since these data may be analyzed by EPA without adjustment.) Once the 1998 enterprise level data are adjusted, EPA would derive a base year estimate by back-calculating to 1997 using a 5-year index that EPA created based on the same USDA national level cost and returns data for farrow-finish and grow-finish operations from 1995 to 1999, as is used to extrapolate farm level revenues. EPA is proposing to replace the USDA reported data for 1998 and 1999 with EPA adjusted values based on the expected market prices during this period. EPA solicits comment on this approach. EPA has presented the results of these adjustments of the original data to USDA ERS personnel, who are reviewing the approach and resultant adjustments to these data. EPA would project out the 1997 baseline data using FAPRI timeline data of net returns for the hog sector to obtain a cash flow stream over the analysis period (1997 to 2006). From these data, EPA would estimate the net present value of expected cash flow for use in its DCF analysis. Additional information on EPA's adjustment of these data is available in the rulemaking record (DCN 375083).

For the debt-asset test, EPA is considering using FAPRI data on total assets and total liabilities for similar size operations in this sector, replacing USDA asset and liability data (used for proposal) with alternative FAPRI data. Use of these alternative data address concerns expressed during the public comment period about EPA's assumptions of baseline debt and equity conditions at CAFOs and the data on debt and assets assumed for the proposed rulemaking, as discussed in the 2001 Notice (66 FR 58582-58583).

A summary of the baseline financial data that EPA is considering using for its final analysis of this sector is available for review at DCN 375084.

#### 5. Poultry Sector

For EPA's farm level analysis, EPA is continuing to use the 1997 USDA farm level data for broiler, egg layer, and turkey operations used by EPA for its proposal analysis. Since proposal, additional farm level data for these sectors have not been made available. EPA also continues to use USDA data on total assets and total liabilities for the debt-asset test, which EPA used for proposal. Despite concerns expressed during the public comment period about EPA's assumptions of baseline debt and equity conditions at CAFOs, EPA was not able to obtain alternate debt-asset information.

For the enterprise level analysis, EPA is considering using enterprise budget data collected by EPA from Oklahoma State University (contract broiler operations), North Carolina State University (contract turkey hen and turkey tom operation), and Iowa State University (independent-owner egg operation). These data are available in the rulemaking record (see: DCN 175024, DCN 375036, DCN 375048, and DCN 375049). Despite an extensive search of available data, EPA is unable to locate financial data that capture each of the possible types of poultry operations, including whether an operation is independently owned and operated or whether the operation raises animals under contract. Additional information on EPA's rationale for selecting these data for its analysis is provided in the rulemaking record (DCN 375084).

Because limited data are available that characterize conditions at farms that raise chickens and turkeys, EPA is not able to locate multiple years of financial data in order to average available data over a multiple year time frame. Therefore, EPA's analysis of the financial effects on broiler, egg, and turkey operations would be based on a single year of input data. Using

available data, EPA obtains net cash income estimates at both the farm and enterprise level. EPA would project out the 1997 baseline data using FAPRI timeline data of net returns for the broiler, egg, and turkey sectors to obtain a cash flow stream over the analysis period (1997 to 2006). From these data, EPA would estimate the net present value of expected cash flow for use in its DCF analysis. Additional information is available in the rulemaking record (DCN 375084).

A summary of the baseline financial data that EPA is considering using for its final analysis of this sector is available for review at DCN 375084.

#### C. Preliminary Analysis Results

EPA's rulemaking record presents a summary of estimated total compliance costs by sector and technology option (pre-tax, 2001 dollars), which are relatively consistent compared to EPA's estimates for the proposed rule across the various technology options. EPA's rulemaking record also provides a comparison of the results at proposal with preliminary results using the data and methodological changes presented in today's notice. As anticipated by EPA in its 2001 Notice, the cumulative effect of each of the methodological changes and uses of alternative financial data for some sectors results in changes to EPA's estimate of the number of operations that may be vulnerable to closure post-regulation (66 FR 58580-58583).

EPA's preliminary results show that the inclusion of an enterprise level financial analysis does not significantly alter the results of EPA's overall analysis (*i.e.*, the enterprise level results do not always differ substantially from the farm level results across all sectors). The use of alternative financial data in the beef and hog sectors, however, does result in changes in EPA's analysis compared to that conducted for the proposed rule, with more beef operations but fewer hog operations expected to experience financial stress from estimated compliance costs. These preliminary results, however, are not driven solely by changes to EPA's financial models but are also driven by underlying changes to EPA's engineering cost models. As discussed in the 2001 Notice, EPA is considering expanding the range of cost estimates per representative farm to account for variability across operations based on expected capital and management improvements needed (see 66 FR 58572-58573).

Overall, EPA's preliminary analysis results show that combined changes to EPA's cost and financial models and input data to address public comments

do not result in significant changes to EPA's regulatory analysis compared to that conducted for proposal. More detailed information on the results of this analysis is provided in the rulemaking record (DCN 375084). These results are preliminary and subject to change, depending on ongoing refinements and corrections made to both EPA's cost and financial models and input data. In addition, these results do not yet consider potential longer-term market adjustment and structural adjustment by regulated facilities. These results also do not take into account potential cost offsets due to available cost share assistance, given increases in government expenditures and changes to program eligibility requirements under the new farm bill legislation.

Dated: July 16, 2002.

G. Tracy Mehan, III,

Assistant Administrator for Water.

[FR Doc. 02-18579 Filed 7-22-02; 8:45 am]

BILLING CODE 6560-50-P

**FEDERAL EMERGENCY MANAGEMENT AGENCY**

**44 CFR Part 67**

[Docket No. FEMA-P-7611]

**Proposed Flood Elevation Determinations**

**AGENCY:** Federal Emergency Management Agency (FEMA).

**ACTION:** Proposed rule.

**SUMMARY:** Technical information or comments are requested on the proposed Base (1% annual-chance) Flood Elevations (BFEs) and proposed BFE modifications for the communities listed below. The BFEs and modified BFEs are the basis for the floodplain management measures that the community is required either to adopt or to show evidence of being already in effect in order to qualify or remain

qualified for participation in the National Flood Insurance Program (NFIP).

**DATES:** The comment period is ninety (90) days following the second publication of this proposed rule in a newspaper of local circulation in each community.

**ADDRESSES:** The proposed BFEs for each community are available for inspection at the office of the Chief Executive Officer of each community. The respective addresses are listed in the table below.

**FOR FURTHER INFORMATION CONTACT:** Matthew B. Miller, P.E., Chief, Hazards Study Branch, Federal Insurance and Mitigation Administration, FEMA, 500 C Street, SW., Washington, DC 20472, (202) 646-3461 or (e-mail) *matt.miller@fema.gov*.

**SUPPLEMENTARY INFORMATION:** FEMA proposes to make determinations of BFEs and modified BFEs for each community listed below, in accordance with Section 110 of the Flood Disaster Protection Act of 1973, 42 U.S.C. 4104, and 44 CFR 67.4(a).

These proposed BFEs and modified BFEs, together with the floodplain management criteria required by 44 CFR 60.3, are the minimum that are required. They should not be construed to mean that the community must change any existing ordinances that are more stringent in their floodplain management requirements. The community may at any time enact stricter requirements of its own, or pursuant to policies established by other Federal, State, or regional entities. These proposed elevations are used to meet the floodplain management requirements of the NFIP and are also used to calculate the appropriate flood insurance premium rates for new buildings built after these elevations are made final, and for the contents in these buildings.

*National Environmental Policy Act.* This proposed rule is categorically

excluded from the requirements of 44 CFR Part 10, Environmental Consideration. No environmental impact assessment has been prepared.

*Regulatory Flexibility Act.* The Acting Administrator for Federal Insurance and Mitigation Administration certifies that this proposed rule is exempt from the requirements of the Regulatory Flexibility Act because proposed or modified BFEs are required by the Flood Disaster Protection Act of 1973, 42 U.S.C. 4104, and are required to establish and maintain community eligibility in the NFIP. No regulatory flexibility analysis has been prepared.

*Regulatory Classification.* This proposed rule is not a significant regulatory action under the criteria of Section 3(f) of Executive Order 12866 of September 30, 1993, Regulatory Planning and Review, 58 FR 51735.

*Executive Order 12612, Federalism.* This proposed rule involves no policies that have federalism implications under Executive Order 12612, Federalism, dated October 26, 1987.

*Executive Order 12778, Civil Justice Reform.* This proposed rule meets the applicable standards of Section 2(b)(2) of Executive Order 12778.

**List of Subjects in 44 CFR Part 67**

Administrative practice and procedure, flood insurance, reporting and record keeping requirements.

Accordingly, 44 CFR Part 67 is proposed to be amended as follows:

**PART 67—[AMENDED]**

1. The authority citation for Part 67 continues to read as follows:

**Authority:** 42 U.S.C. 4001 *et seq.*; Reorganization Plan No. 3 of 1978, 3 CFR, 1978 Comp., p. 329; E.O. 12127, 44 FR 19367, 3 CFR, 1979 Comp., p. 376.

**§ 67.4 [Amended]**

2. The tables published under the authority of § 67.4 are proposed to be amended as follows:

Source of Flooding and Location of Referenced Elevation	*Elevation in feet (NGVD)		Communities affected
	Existing	Modified	
<i>Bayou Petit Anse-Deblanc Coulee-Segura Branch Canal</i> .....			Unincorporated Areas of Iberia Parish.
Approximately 6,100 feet downstream of U.S. Route 90 .....	None	*9	
Approximately 75 feet upstream of U.S. Route 90 .....	None	*10	Unincorporated Areas of Iberia Parish, City of Jeanerette, City of New Iberia, Village of Loreauville.
<i>Bayou Teche</i> .....			
Approximately 2,200 feet downstream of Lewis Street .....	None	*8	
Approximately 5,000 feet upstream of State Highway 86 (Daspit Road).	None	*15	
<i>Commercial Canal</i> .....			Unincorporated Areas of Iberia Parish, City of New Iberia.
Approximately 400 feet downstream of Briarwood Drive .....	None	*9	
Approximately 450 feet upstream of East Admiral Doyle Drive ..	None	*10	