

**Development Document for the Proposed Effluent Limitations  
Guidelines and Standards for the Meat and Poultry Products Industry  
Point Source Category (40 CFR 432)  
EPA-821-B-01-007**

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Complete proposed document available at:

<http://www.epa.gov/ost/guide/mpp/>

The Final Development Document is available as well.

# SECTION 1

## **PURPOSE AND SUMMARY OF THE REGULATION**

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This section describes the purpose of the regulation and summarizes proposed requirements. Section 1.1 describes the purpose of the rulemaking. Section 1.2 presents an overview of the Meat and Poultry Products (MPP) Point Source Category. Section 1.3 summarizes the proposed MPP rulemaking.

### **1.1 PURPOSE OF THIS RULEMAKING**

Pursuant to the Clean Water Act (CWA), EPA is proposing effluent limitations guidelines and standards (ELGs) for the Meat and Poultry Products Point Source Category (40 CFR 432). These proposed ELGs apply to existing and new meat and poultry products (MPP) facilities that are direct dischargers. Direct discharging facilities directly discharge wastewater to surface waters of the United States (e.g., lake, river, ocean). This document and the administrative record for this rulemaking provide the technical basis for these proposed limitations and standards.

### **1.2 OVERVIEW OF THE MPP POINT SOURCE CATEGORY**

The meat and poultry products industry includes facilities that slaughter livestock and/or poultry or that process meat and/or poultry into products for further processing or sale to consumers<sup>1</sup>. The industry is often divided into three categories: (1) meat slaughtering and processing; (2) poultry slaughtering and processing; and (3) rendering. Facilities may perform slaughtering operations, processing operations from carcasses slaughtered at other or their own facilities, or both. Companies that own meat or poultry product facilities may also own facilities that raise the animals. These other enterprises (e.g., feedlots) are not covered by the MPP ELGs.

The meat and poultry products industry encompasses primarily four North American Industry Classification System (NAICS) codes which are developed by the Department of

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<sup>1</sup>Meat products include all animal products from cattle, calves, hogs, sheep and lambs, and any meat that is not listed under the definition of poultry. Poultry includes broilers, other young chickens, hens, fowl, mature chickens, turkeys, capons, geese, ducks, exotic poultry (e.g., ostriches), and smallgame such as quail, pheasants, and rabbits. This category may include species not classified as “poultry” by USDA Food Safety and Inspection Service (FSIS) and that may or may not be under USDA FSIS voluntary inspection.

Commerce. These NAICS codes include: Animal Slaughtering (Except Poultry) (NAICS 311611); Meat Processed from Carcasses (NAICS 311612); Poultry Processing (NAICS 311615); and Rendering and Meat Byproduct Processing (NAICS 311613).

The MPP industry includes almost 6,770 facilities, of which an estimated 5,657 discharge process wastewater. (See Table 1-1.) Of these facilities discharging process wastewater, EPA estimates that 94 percent are indirect dischargers and 6 percent are direct dischargers. The Agency estimates that approximately 1,113 facilities either discharge no process wastewater or use contract haulers. See Section 5 for a description of how EPA subcategorized MPP facilities.

EPA estimated engineering compliance costs for each of the technology options for a set of model sites, and then used these sites to estimate compliance costs for the entire MPP industry. The Agency also estimated pollutant loadings and removals associated with each of the technology options. EPA then used the loadings and removals to assess the effectiveness of each technology option. The Agency used the costs to estimate the financial impact on the industry of implementing the various technology options. (See “Economic Analysis of Proposed Effluent Limitations Guidelines and Standards for the Meat and Poultry Products Industry Point Source Category” [EPA-821-B-01-006].) Details on the cost-effectiveness analysis can be found in the same document. EPA also estimated the water quality impacts and potential benefits for each technology option. (See “Environmental Assessment of Proposed Effluent Limitations Guidelines and Standards for the Meat and Poultry Products Industry Point Source Category” [EPA-821-B-01-008].)

**Table 1-1. Profile and Subcategorization of MPP Facilities**

40 CFR 432 Category	Description	Facility Size			
		Small		M, L, VL	
		Direct	Indirect	Direct	Indirect
A, B, C, D	Meat First Processors	59 †	1,003	82 †	70
E, F, G, H, I	Meat Further Processors	48 †	2,940	19 †	234
J	Independent Renderers	6 †	17	21 †	75
K	Poultry First Processors	0	39	104	143
L	Poultry Further Processors	4	568	16	209

Source: EPA Screener Survey

† Covered under current MPP ELGs (40 CFR 432)

### **1.3 SUMMARY OF THE PROPOSED MPP EFFLUENT LIMITATIONS AND GUIDELINES**

EPA is proposing regulations for the MPP direct dischargers based on the "best practicable control technology currently available" (BPT), the "best conventional pollutant control technology" (BCT), the "best available technology economically achievable" (BAT), and the best available demonstrated control technology for new source performance standards (NSPS).

The Agency is proposing revised ELGs for nine of the ten existing subcategories of the meat products industry, including: simple slaughterhouse, complex slaughterhouse, low processing packinghouse, high processing packinghouse, meat cutter, sausage and luncheon meats processor, ham processor, canned meats processor, and renderer. The Agency is also proposing two new MPP subcategories with effluent guidelines and source performance standards for the poultry first processing (i.e., slaughtering) and further processing categories. EPA is not proposing any new or revised effluent limitations guidelines or pretreatment standards for the small processor category.

Table 1-2 summarizes the proposed technology options that serve as the basis for the effluent limitations guidelines and standards being proposed today for the meat and poultry products industry. For descriptions and discussion of the subcategories, see Section 5; for the technologies, Section 8; for a discussion of the process wastewater generated by these subcategories see Section 6; and for a discussion of the proposed limits, see Section 13.

**Table 1-2.** Summary of Technologies for Proposed Options for MPP Facilities

Subcategory	Regulatory Level	Technology Option	Technical Components
<b>Subpart A:</b> Simple Slaughterhouse; <b>Subpart B:</b> Complex Slaughterhouse; <b>Subpart C:</b> Low-Processing Packinghouse; and <b>Subpart D:</b> High-Processing Packinghouse	BPT	2	Equalization, dissolved air flotation, secondary biological treatment with nitrification.
	BAT; NSPS	3	Equalization, dissolved air flotation, secondary biological treatment with nitrification and denitrification.
	BCT	No Action	No revised limitations are proposed.
	PSES; PSNS	No Action	No pretreatment standards are proposed.
<b>Subpart E:</b> Small Processors	BPT; BCT; BAT; NSPS	No Action	No revised limitations or standards are proposed.
	PSES; PSNS	No Action	No pretreatment standards are proposed.
<b>Subpart F:</b> Meat Cutter; <b>Subpart G:</b> Sausage and Luncheon Meats Processor; <b>Subpart H:</b> Ham Processor; and <b>Subpart I:</b> Canned Meats Processor	BPT	2	Equalization, dissolved air flotation, secondary biological treatment with nitrification.
	BAT; NSPS	3	Equalization, dissolved air flotation, secondary biological treatment with nitrification and denitrification.
	BCT	No Action	No revised limitations are proposed.
	PSES; PSNS	No Action	No pretreatment standards are proposed.
<b>Subpart J:</b> Renderer	BPT; BCT	2	Equalization, dissolved air flotation, secondary biological treatment with nitrification.
	BAT; NSPS	2	Equalization, dissolved air flotation, secondary biological treatment with nitrification.
	PSES; PSNS	No Action	No pretreatment standards are proposed.
<b>Subpart K:</b> Poultry First Processing ( <i>facilities which slaughter up to 10 million pounds per year</i> ); and, <b>Subpart L:</b> Poultry Further Processing ( <i>facilities which produce up to 7,000 pounds per year of finished product</i> )	BPT; BCT	1	Equalization, dissolved air flotation, secondary biological treatment with less efficient nitrification.
	BAT; NSPS	1	Equalization, dissolved air flotation, secondary biological treatment with less efficient nitrification.
	PSES; PSNS	No Action	No pretreatment standards are proposed.

Section 1. Purpose and Summary of the Regulation

Subcategory	Regulatory Level	Technology Option	Technical Components
<b>Subpart K:</b> Poultry First Processing <i>(facilities which slaughter more than 10 million pounds per year);</i> and, <b>Subpart L:</b> Poultry Further Processing <i>(facilities which produce more than 7,000 pounds per year of finished product)</i>	BPT; BCT	3	Equalization, dissolved air flotation, secondary biological treatment with nitrification and denitrification.
	BAT; NSPS	3	Equalization, dissolved air flotation, secondary biological treatment with nitrification and denitrification.
	PSES; PSNS	No Action	No pretreatment standards are proposed.

## SECTION 2

### **LEGAL AUTHORITY AND BACKGROUND**

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This section presents background information supporting the development of effluent limitations guidelines and standards for the Meat and Poultry Products (MPP) Point Source Category. Section 2.1 presents the legal authority to regulate the MPP industry. Section 2.2 discusses the Clean Water Act, the Pollution Prevention Act, the Regulatory Flexibility Act (as amended by the Small Business Regulatory Enforcement Fairness Act of 1996), and prior regulation of the MPP industry. Section 2.3 discusses the scope and applicability of the MPP proposal.

#### **2.1 LEGAL AUTHORITY**

The Agency proposes these regulations under the authority of Sections 301, 304, 306, 307, 308, 402, and 501 of the Clean Water Act, 33 U.S.C.1311, 1314, 1316, 1317, 1318, 1342, and 1361.

#### **2.2 REGULATORY BACKGROUND**

##### **2.2.1 Clean Water Act**

Congress adopted the Clean Water Act (CWA) to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters" (Section 101(a), 33 U.S.C. 1251(a)). To achieve this goal, the CWA prohibits the discharge of pollutants into navigable waters except in compliance with the statute. The Clean Water Act addresses the problem of water pollution on a number of different fronts. It relies primarily, however, on establishing restrictions on the types and amounts of pollutants discharged from various industrial, commercial, and public sources of wastewater.

Direct dischargers (i.e., those that discharge effluent directly into navigable waters) must comply with effluent limitation guidelines and new source performance standards in National Pollutant Discharge Elimination System (NPDES) permits; indirect dischargers (i.e., those that discharge to publicly owned treatment works must comply with pretreatment standards. These

limitations and standards are established by regulation for categories of industrial dischargers based on the degree of control that can be achieved using various levels of pollution control technology. The limitations and standards are summarized below.

**2.2.1.1 *Best Practicable Control Technology Currently Available (BPT)—Section 304(b)(1) of the CWA***

EPA defines BPT limitations for discharges of conventional, toxic, and non-conventional pollutants<sup>2</sup> from existing sources. In specifying BPT, EPA considers the cost of achieving effluent reductions in relation to the effluent reduction benefits, the age of equipment and facilities, the processes employed, process changes required, engineering aspects of the control technologies, non-water quality environmental impacts (including energy requirements), and other factors the EPA Administrator deems appropriate (CWA §304(b)(1)(B)). Traditionally, EPA establishes BPT effluent limitations based on the average of the best performances of facilities within the industry, grouped to reflect various ages, sizes, processes or other common characteristics. Where existing performance is uniformly inadequate, however, EPA may establish BPT limitations based on higher levels of control than currently in place in an industrial category if the Agency determines that the technology is available in another category or subcategory and can be practically applied.

**2.2.1.2 *Best Conventional Pollutant Control Technology (BCT)—Section 304(b)(4) of the CWA***

The 1977 amendments to the CWA established BCT as an additional level of control for discharges of conventional pollutants from existing industrial point sources. In addition to other factors specified in section 304(b)(4)(B), the CWA requires that BCT limitations be established in light of a two-part "cost-reasonableness" test. EPA published a methodology for the development of BCT limitations in July. (51 FR 24974, July 9, 1986).

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<sup>2</sup> Conventional pollutants are biochemical oxygen demand (BOD<sub>5</sub>), total suspended solids (TSS), fecal coliform, pH, and oil and grease; toxic pollutants are those pollutants listed by the Administrator under CWA Section 307(a); nonconventional pollutants are those that are neither toxic nor listed as conventional.

Section 304(a)(4) designates the following as conventional pollutants: biochemical oxygen demanding pollutants (measured as BOD<sub>5</sub>), total suspended solids (TSS), fecal coliform, pH and any additional pollutants defined by the Administrator as conventional. The Administrator designated oil and grease as an additional conventional pollutants on July 30, 1979 (44 FR 44501).

**2.2.1.3 Best Available Technology Economically Achievable (BAT)—Section 304(b)(2)(B) of the CWA**

In general, BAT effluent limitation guidelines represent the best existing economically achievable performance of direct discharging facilities in the industrial subcategory or category. The factors considered in assessing BAT include the cost of achieving BAT effluent reductions, the age of equipment and facilities involved, the processes employed, engineering aspects of the control technology, potential process changes, non-water quality environmental impacts (including energy requirements), and such other factors as the Administrator deems appropriate. The Agency retains considerable discretion in assigning the weight to be accorded to these factors. An additional statutory factor considered in setting BAT is economic achievability. Generally, the achievability is determined on the basis of the total cost to the industry and the effect of compliance with the BAT limitations on overall industry and subcategory financial conditions. Unlike BPT, BAT limitations may be based upon effluent reductions attainable through changes in a facility's processes and operations. As with BPT, where existing performance is uniformly inadequate, BAT limitations may be based upon technology transferred from a different subcategory within an industry or from another industrial category. BAT also may be based upon process changes or internal controls, even when these technologies are not common industry practice.

**2.2.1.4 New Source Performance Standards (NSPS)—Section 306 of the CWA**

NSPS reflect effluent reductions that are achievable based on the best available demonstrated control technology. New facilities have the opportunity to install the best and most efficient production processes and wastewater treatment technologies. As a result, NSPS should represent the greatest degree of effluent reduction attainable through the application of the best

available demonstrated control technology for all pollutants (i.e., conventional, non-conventional, and priority pollutants). In establishing NSPS, EPA is directed to take into consideration the cost of achieving the effluent reduction and any non-water quality environmental impacts and energy requirements.

***2.2.1.5 Pretreatment Standards For Existing Sources (PSES)—Section 307(b) of the CWA***

PSES are designed to prevent the discharge of pollutants that pass through, interfere with, or are otherwise incompatible with the operation of POTW. The CWA authorizes EPA to establish pretreatment standards for pollutants that pass through POTWs or interfere with treatment processes or sludge disposal methods. The pretreatment standards are to be technology-based and analogous to the BAT effluent limitations guidelines.

The General Pretreatment Regulations, which set forth the framework for implementing categorical pretreatment standards, are found in 40 CFR Part 403. These regulations provide a definition of pass-through that addresses local rather than national instances of pass-through and establish pretreatment standards that apply to all non-domestic dischargers (52 FR 1586, January 14, 1987).

***2.2.1.6 Pretreatment Standards For New Sources (PSNS)—Section 307(b) of the CWA***

Like PSES, PSNS are designed to prevent the discharges of pollutants that pass through, interfere with, or are otherwise incompatible with the operation of POTWs. PSNS are to be issued at the same time as NSPS. New indirect dischargers have the opportunity to incorporate into their facilities the best available demonstrated technologies. The Agency considers the same factors in promulgating PSNS as in promulgating NSPS.

***2.2.1.7 Best Management Practices (BMPs)***

Sections 304(e), 308(a), 402(a), and 501(a) of the CWA authorize the Administrator to prescribe BMPs as part of effluent limitations guidelines and standards or as part of a permit. EPA's BMP regulations are found at 40 CFR 122.44(k). Section 304(e) of the CWA authorizes EPA to include BMPs in effluent limitations guidelines for certain toxic or hazardous pollutants for the purpose of controlling "plant site runoff, spillage or leaks, sludge or waste disposal, and

drainage from raw material storage.” Section 402(a)(1) and NPDES regulations (40 CFR 122.44(k)) also provide for best management practices to control or abate the discharge of pollutants when numeric limitations and standards are infeasible. In addition, Section 402(a)(2), read in concert with Section 501(a), authorizes EPA to prescribe as wide a range of permit conditions as the Administrator deems appropriate in order to ensure compliance with applicable effluent limitation and standards and such other requirements as the Administrator deems appropriate. Table 2-1 summarizes these regulatory levels of control and the pollutants controlled.

**Table 2-1. Summary of Regulatory Levels of Control**

Type of Site Regulated	BPT	BAT	BCT	NSPS	PSES	PSNS
Existing Direct Dischargers	X	X	X			
New Direct Dischargers				X		
Existing Indirect Dischargers					X	
New Indirect Dischargers						X
Type of Pollutant Regulated	BPT	BAT	BCT	NSPS	PSES	PSNS
Priority Toxic Pollutants	X	X		X	X	X
Nonconventional Pollutants	X	X		X	X	X
Conventional Pollutants	X		X	X	X	X

Source: Clean Water Act

### **2.2.2 Section 304(m) Requirements**

Section 304(m) requires EPA to establish schedules for; reviewing and revising existing effluent limitations guidelines and standards; promulgates new effluent limitations guidelines and standards. Section 304(m) does not apply to pretreatment standards for indirect dischargers, which EPA promulgates pursuant to Sections 307(b) and 307(c) of the Clean Water Act.

On October 30, 1989, Natural Resources Defense Council, Inc., and Public Citizen, Inc., filed an action against EPA in which they alleged, among other things, that EPA had failed to comply with CWA section 304(m) (see *NRDC v. Browner*, civ. no. 89-2980(D.DC.)). Plaintiffs and EPA agreed to a settlement of that action in a consent decree entered on January 31, 1992. The consent decree, which has been modified several times, established a schedule by which EPA is to propose and take final action for eleven point source categories identified by name in

the decree and for eight other point source categories identified only as new or revised rules, numbered five through 12. EPA selected the meat and poultry products industry as the subject for New or Revised Rule #11. Under the decree, as modified, the Administrator was required to sign a proposed rule for the meat and poultry products industry no later than January 30, 2002, and must take final action on that proposal no later than December 31, 2003.

### **2.2.3 Total Maximum Daily Load (TMDL) program**

The CWA requires states to identify waters not meeting water quality standards and to develop Total Maximum Daily Loads (TMDLs) for those waters (Section 303(d) of the CWA). A TMDL is essentially a prescription designed to restore the health of the polluted body of water by indicating the amount of pollutants that may be present in the water and still meet water quality standards. More than 20,000 bodies of water across America have been identified as impaired . These waters include more than 300,000 river and shoreline miles and five million acres of lakes. EPA estimates that more than 40,000 TMDLs must be established.

EPA promulgated a final rule in July 2000 to amend and clarify existing regulations at 40 CFR 130.7 implementing Section 303(d) of the CWA. Those rules require States to identify waters that are not meeting State water quality standards and to establish TMDLs to restore the quality of those waters. The July 2000 revisions of the rule established specific time frames under which EPA will assure TMDLs are completed, and that necessary point and nonpoint source controls are implemented to meet TMDLs.

On October 18, 2001 (66 FR 53044), EPA established April 30, 2003 as the new effective date of the July 2000 TMDL rule revisions. EPA believes that this delay of the effective date is necessary for the Agency to be able to conduct a meaningful consultation with the public, analyze recommendations of various stakeholders, reconcile concerns about the scope, complexity, and cost of the TMDL program, and structure a flexible yet effective TMDL program, including a revised TMDL rule, to meet Clean Water Act goals of restoring the nation's impaired waters. During this delay, the program will continue to operate under the 1985 TMDL regulations, as amended in 1992 at 40 CFR Part 130, and EPA and the States and Territories will continue to develop TMDLs to work towards cleaning up the nation's waters and meeting water quality

standards. The Agency plans to propose a new, revised TMDL rule during the summer of 2002 and issue a new final rule sometime in 2003.

A TMDL must be developed for waters that do not attain water quality standards. A TMDL identifies the loading capacity of a waterbody for the applicable pollutant, which is the greatest amount of a pollutant that a water can receive without exceeding water quality standards. The TMDL also identifies the load reduction needed to attain standards and allocates such reductions to point source dischargers (a wasteload allocation(s)) and nonpoint sources (a load allocation(s)). Thus, the TMDL is actually a “pollution budget” or water-quality based approach that will allow the waterbody to achieve water quality standards. Wasteload allocations are reflected in the NPDES permits written for point sources discharging into the waterbody.

Effluent guidelines are technology-based controls for point source dischargers and are part of the NPDES permits that point sources must obtain prior to discharging pollutants to waters of the U.S. EPA is not required to demonstrate environmental benefits of its technology-based effluent guidelines. It is well established that EPA is not required to consider receiving water quality in setting technology-based effluent limitations guidelines and standards. *Weyerhaeuser v. Costle*, 590 F. 2nd 1011, 1043 (D.C. Cir. 1978) (“The Senate Committee declared that “[t]he use of any river, lake, stream or ocean as a waste treatment system is unacceptable”— regardless of the measurable impact of the waste on the body of water in question. Legislative History at 1425 (Senate Report). The Conference Report states that the Act ‘specifically bans pollution dilution as an alternative to treatment.’” *Id.* at 284.”). The purpose of such technology-based limits is to “result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants.” See *NRDC*, 863 F.2d at 1433 (9th Cir. 1988). In short, the CWA set up both TMDLs and effluent guidelines as complementary regulatory programs as both are necessary for restoring the quality of the Nation’s waters and for striving towards the national goal of eliminating the discharge of all pollutants.

#### **2.2.4 Pollution Prevention Act**

The Pollution Prevention Act of 1990 (42 U.S.C. 13101 et seq., Pub.L. 101-508, November 5, 1990), makes pollution prevention the national policy of the United States. This act

identifies an environmental management hierarchy in which pollution "should be prevented or reduced whenever feasible; pollution that cannot be prevented or recycled should be reused in an environmentally safe manner whenever feasible; pollution that cannot be prevented or recycled should be treated in an environmentally safe manner whenever feasible; and disposal or release into the environment should be employed only as a last resort..." (Sec. 6602; 42 U.S.C. 13103).

According to the Pollution Prevention Act, source reduction reduces the generation and release of hazardous substances, pollutants, wastes, contaminants, or residuals at the source, usually within a process. The term source reduction "includes equipment or technology modifications, process or procedure modifications, reformulation or redesign of products, substitution of raw materials, and improvements in housekeeping, maintenance, training, or inventory control. The term source reduction does not include any practice which alters the physical, chemical, or biological characteristics or the volume of a hazardous substance, pollutant, or contaminant through a process or activity which itself is not integral to or necessary for the production of a product or the providing of a service." In effect, source reduction means reducing the amount of a pollutant that enters a waste stream or that is otherwise released into the environment prior to out-of-process recycling, treatment, or disposal. The Pollution Prevention Act directs the Agency to, among other things, "review regulations of the Agency prior and subsequent to their proposal to determine their effect on source reduction" (Sec. 6604; 42 U.S.C. 13103). This proposed regulation for the MPP industry was reviewed for its incorporation of pollution prevention as part of the Agency effort. Chapter 8 outlines pollution prevention practices applicable to the MPP industry.

### **2.2.5 Regulatory Flexibility Act (RFA) as Amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA)**

The RFA generally requires an agency to prepare a regulatory flexibility analysis for any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute, unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For the purpose of assessing the impact of today's rule on small entities, a small entity is defined as: (1) a small business based on full time employees (FTEs) or annual revenues established by SBA; (2) a small governmental jurisdiction that is a government of a city, county, town, school district, or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

The definitions of small business for the meat products industries are in SBA's regulations at 13 CFR 121.201. These size standards were updated effective October 1, 2000. SBA size standards for the meat and poultry products industry (that is, for NAICS codes 311611, 311612, 311613, and 311615) define a "small business" as one with 500 or fewer employees.

EPA estimates that small businesses own 71 out of 246 facilities that would be regulated under the rule as proposed. The EPA based this estimate on information from screener survey and SBA. The Agency assumes that it is unlikely that any small business owns more than one facility. EPA has fully evaluated the economic impact of the proposed rule on the affected small companies. None of the facilities owned by small companies have a cost/sales ratio greater than one percent. For this proposal, EPA is using the ratio of annualized compliance costs to net income as its central measure of economic achievability. (See Section IV.E of the MPP Preamble for a definition of this measure.) EPA estimates that, based on its model facilities, 38 of the 71 facilities owned by small companies have cost/net income ratios between five and nine percent, eight facilities have cost/net income ratios between two and three percent, while the other 25 facilities owned by small companies have cost/net income ratios less than one percent. EPA also calculated the ratio of cost to sales as a supplement to the cost/net income ration. None of the facilities owned by small companies has a cost/sales ratio greater than 0.52 percent. More detail on these estimates is provided in the MPP Economic Analysis (EPA-821-B-01-006). After considering the economic impact of the proposed rule on small entities, including consideration of alternative regulatory approaches being proposed, EPA is certifying that this action will not have significant economic impact on a substantial number of small entities. No small governments are regulated by this action.

Although this proposed rule will not have a significant economic impact on a substantial number of small entities, EPA nonetheless has tried to reduce the impact of this rule on them. EPA is not proposing any new requirements on 5,411 facilities (the vast majority of facilities). Most of these are owned by small businesses, and many of the smallest could likely experience serious economic impacts if requirements were imposed. EPA considered regulating the 731 largest indirect discharging facilities in this group of 5,411 facilities (462 of which are owned by small businesses). If the costs of Option 1 for PSES standards were imposed on these indirect discharging facilities, EPA estimates that 235 of the 462 facilities owned by small companies would have a cost/net income ratio between 1 and 2 percent while the other 227 facilities owned by small companies would have a cost/net income ratio of less than 1 percent. Thus, even if EPA had proposed Option 1 PSES standards for the 731 largest indirect dischargers the combined proposal would not have had a significant impact on a substantial number of small entities.

EPA has held several teleconferences with representatives of the American Association of Meat Processors (AAMP) which has almost a third of its association members with less than 10 FTE at the company level. EPA will continue to evaluate the potential impacts of the proposed rule on small entities and issues related to such impacts.

### **2.2.6 Regulatory History of the MPP Industry**

In 1974, EPA promulgated effluent guidelines for meat slaughterhouses and packinghouse facilities (40 CFR 432 Subcategories A through D), and in 1975, EPA promulgated effluent guidelines for meat further processing facilities (40 CFR 432 Subcategories E through I) and independent rendering facilities (40 CFR 432 Subcategory J) in 1975. The Agency proposed regulations for the poultry industry in 1974, but the rule was never finalized. The following describes the current regulatory framework for the MPP industry.

#### **2.2.6.1 Meat Facilities**

The effluent limitations guidelines and standards for the meat products industry were developed and promulgated in the 1970's. As described above, there are existing regulations for the meat slaughtering and processing subcategories and for independent rendering. These

regulations were issued in phases and are grouped together under 40 CFR 432. Although there is no definition of "red meat" or "meat" in the existing MPP effluent guidelines, EPA defined these terms in the previous technical development documents associated with these prior rules as all animal products from cattle, calves, hogs, sheep and lambs, and from any meat that is not listed under the definition of poultry. EPA is using the term "meat" as synonymous with the term "red meat." EPA proposes to include the same definition in the revised regulations. The current regulations for meat cover all aspects of producing meat products from the slaughter of the animal to the production of final consumer products (e.g., cooked, seasoned, or smoked products, such as luncheon meat or hams.)

EPA promulgated BPT, BAT, NSPS limitations and standards for existing and new meat slaughterhouses and packinghouses on February 28, 1974 (39 FR 7894). EPA established separate effluent limitations and standards for existing and new sources for various types of meat slaughterhouses and packinghouses: Simple Slaughterhouse, Complex Slaughterhouse, Low Processing Packinghouse, and High Processing Packinghouse (40 CFR 432, Subcategories A through D).

The Agency promulgated BPT, BAT, NSPS limitations and standards for existing and new meat further processing subcategories and the independent rendering subcategory on January 3, 1975 (40 FR 902). EPA promulgated no PSNS for this segment of the industry in the January 3, 1975 notice. EPA established separate effluent limitations and standards for existing and new sources for various types of meat further processors and independent renderers: Small Processor, Meat Cutter, Sausage and Luncheon Meats Processor, Ham Processor, Canned Meats Processor, and Independent Renderer (40 CFR 432, Subcategories E through J).

EPA did not establish any pretreatment standards in the 1974 or 1975 regulations.

The BPT and BAT limitations established in the February 28, 1974 notice were the subject of litigation in *American Meat Institute v. EPA*, 526 F.2d 442 (7th Cir. 1975). The Seventh Circuit Court of Appeals reviewed the effluent limitations and remanded selected portions of those regulations. The BPT and BAT regulations remanded by the court were

subsequently revised or withdrawn. (See 44 FR 50732, August 29, 1979; 45 FR 82253, December 15, 1980.)

The regulations in the independent rendering subcategory were also the subject of litigation in *National Renderers Association et al., v. EPA, et al.*, 541 F. 2d 1281 (8th Cir. 1976). The Court remanded the regulations to the Agency to reconsider the economic impact of the costs associated with these requirements. The BAT limitations for independent renderers were not remanded, but EPA reevaluated these limitations nonetheless. On October 6, 1977 (42 FR 54417), EPA promulgated a final rule which revised the BAT limitations and new source performance standards for this subcategory. In that final rule, the BAT limitations for ammonia, BOD5, and TSS are less stringent than the original BAT limitations; however, the October 6, 1977 NSPS are more stringent than the original NSPS standards. In the final rule, EPA retained an exclusion for small facilities (less than 75,000 pounds of raw material per day) from BPT, BAT, and NSPS

#### ***2.2.6.2 Poultry Facilities***

EPA proposed BPT, BAT, NSPS, PSNS limitations and standards for existing and new poultry slaughterers and processors on April 24, 1975 (40 FR 18150). EPA proposed to subcategorize the poultry processing sector into five subcategories, distinguished by the animal or bird being processed and an additional subcategory which applied to further processing. These regulations were never finalized, since the 1977 amendments to the Clean Water Act refocused the Agency's attention on establishing effluent limitations guidelines for industry sectors with effluents containing toxic metals and organics.

### **2.3 SCOPE/APPLICABILITY OF PROPOSED REGULATION**

EPA is proposing new or revised effluent limitations guidelines and standards for nine of the ten subcategories of the (MPP) point source category (40 CFR 432) including: simple slaughterhouse, complex slaughterhouse, low processing packinghouse, high processing packinghouse, meat cutter, sausage and luncheon meats processor, ham processor, canned meats processor, and renderer. The Agency is proposing no new or revised effluent limitations

guidelines or pretreatment standards for the small processor category. EPA is also proposing two new MPP subcategories with effluent limitations guidelines and new source performance standards for the poultry first processing (i.e., slaughtering) and further processing subcategories.

Section 1, table 1-2 summarizes the proposed technology options which serve as the basis for the effluent limitations guidelines and standards being proposed for the meat and poultry products industry. For descriptions and discussion of the subcategories, see Section 5; for the technologies, Section 8; and for a discussion of the process wastewater generated by these subcategories, Section 6.

### **2.3.1 Meat Facilities**

#### ***2.3.1.1 Meat Slaughtering and Further Processing Facilities***

In 1974, EPA established regulations that apply to the meat slaughterhouses and packinghouses (40 CFR 432, Subcategories A through D). EPA established regulations in 1975 which apply to meat further processing facilities (40 CFR 432, Subcategories E through I). The current regulations for meat cover all aspects of producing meat products from slaughtering the animal to producing final consumer products (e.g., cooked, seasoned or smoked products, such as luncheon meat or hams). For Subparts F, G, H and I of the existing regulations, EPA established a production rate threshold of greater than 6,000 pounds of finished product per day, below which the regulations do not apply. Subpart E of the existing regulations applies to meat further processors that produce up to 6,000 pounds of finished product per day.

EPA is not proposing to change the existing production rate thresholds in Subparts E through I in this proposed rule for existing limitations and standards. Also, EPA is proposing new production rate thresholds in Subparts A through D and F through I for the proposed limitations and standards based on current data collected for this rulemaking (see Section 3). These new production rate thresholds do not affect Subpart E (Small Processors) meat facilities, as these proposed new production rate thresholds are all higher than the Subpart E production rate threshold (i.e., 6,000 pounds of finished product per day).

Based on current survey data, EPA defines small facilities based on their annual production. EPA defines the following facilities which are currently covered under 40 CFR 432 as small:

- Facilities in Subcategories A, B, C and D that slaughter less than 50 million pounds (LWK) per year;
- All facilities in Subcategory E;
- Facilities in Subcategories F, G, H and I that produce less than 50 million pounds of finished product per year; and
- Facilities in Subcategory J that render less than 10 million pounds per year of raw material.

Most smaller MPP facilities are excluded from the scope of today's proposal for a number of reasons: (1) small MPP facilities as a group discharge less than 3 percent of the conventional pollutants (or 35 million pounds/year), 1 percent of the toxic pollutants (or 1.3 million pounds/year), 4 percent of the nutrients (or 7.5 million pounds/per year), and less than 1.5 percent of the pathogens (or  $47 \times 10^9$  CFU/year) as compared to all discharges from the entire MPP industry;(2) EPA determined that only a limited amount of loadings removal would be accomplished by improved treatment and small facilities; and (3) EPA determined that “small” MPP facilities would discharge a very small portion of the total industry discharge. Therefore, EPA is not revising current limitations and standards for small meat facilities. The existing regulations, however, will continue to apply to those facilities. EPA is, however, setting limitations and standards for small poultry direct discharging facilities (for whom there are no existing standards) based on current performance.

The existing regulations apply to all sizes of meat direct dischargers (except for renderers processing less than 75,000 pounds of raw material per day). The proposed revisions to 40 CFR 432 apply to meat facilities above the new production based thresholds and all poultry facilities that discharge directly to a receiving stream or other waters of the United States.

### **2.3.1.2 Independent Rendering Facilities**

In 1975, EPA established regulations (40 CFR 432, Subcategory J) that apply to independent renderers, defined as independent or off-site operations that manufacture meat meal, dried animal by-product residues (tankage), animal fats or oils, grease, and tallow, perhaps including hide curing, by a renderer. The existing regulations establish a size threshold of 75,000 pounds of raw material per day processed. Facilities that process less than this amount are not subject to the existing regulations.

EPA is proposing to lower this production threshold in these revisions to include all facilities that render more than 10 million pounds per year of raw material (or approximately 27,000 pounds per day for a facility that operates 365 days per year). EPA is lowering this production threshold based on data collected for this rulemaking. See the “Economic Analysis of Proposed Effluent Limitation Guidelines and Standards for the meat and Poultry Products Industry Point Source Category” (EPA-821-B-01-006) for a description of EPA's reasons for setting production thresholds and exempting most small MPP facilities (including all small rendering facilities that render less than 10 million pounds per year of raw material) from the proposed revisions to 40 CFR 432. Subpart J applies to the rendering of any meat or poultry raw material. When rendering is done in conjunction with a meat slaughterhouse or packinghouse, the rendering wastewater generated is regulated under the limitations for the appropriate meat slaughtering or packinghouse subcategory (i.e., under Subparts A, B, C, or D).

### **2.3.2 Poultry Slaughtering and Further Processing Facilities**

EPA is proposing to establish effluent limitations guidelines and new source performance standards for the poultry first processing (i.e., slaughtering) and further processing subcategories. Poultry includes broilers, other young chickens, hens, fowl, mature chickens, turkeys, capons, geese, ducks, and small game such as quail, pheasants, and rabbits.

EPA proposed regulations for this segment of the meat and poultry products industry in 1975, but did not finalize them. EPA has reanalyzed this segment of the meat and poultry

products industry and is proposing today to establish BPT, BCT, and BAT limitations and standards for existing facilities and new source performance standards for direct dischargers.

EPA proposes to create two new subcategories which would apply to poultry processing facilities. The first new poultry subcategory is the "poultry first processing" subcategory which includes the slaughtering and evisceration of the bird or animal and dressing the carcass for shipment either whole or in parts, such as leg, quarters, breasts, and boneless pieces. These facilities are commonly known as "ice pack facilities." The second new poultry subcategory is the "poultry further processing" subcategory which includes additional preparation of the meat including further cutting, cooking, seasoning, and smoking to produce ready-to-be eaten or reheated servings. The additions to 40 CFR 432 for poultry being proposed apply to facilities that discharge directly to a receiving stream and to other waters of the United States.

EPA is proposing to set less stringent effluent limitations guidelines for direct dischargers slaughtering up to 10 million pounds of poultry per year and for further processors producing up to 7 million pounds of poultry per year. See the "Economic Analysis of Proposed Effluent Limitation Guidelines and Standards for the meat and Poultry Products Industry Point Source Category" (EPA-821-B-01-006) for a description of EPA's reasons for setting production thresholds. The treatment options proposed for larger poultry slaughtering and further processing facilities are economically unachievable for small poultry slaughtering and further processing facilities. Rendering performed in conjunction with a poultry first processing facility would be subject to the appropriate regulations under the poultry slaughtering (Subpart K).