



# **Technical Development Document for the Final Effluent Limitations Guidelines and Standards for the Meat and Poultry Products Point Source Category (40 CFR 432)**

The full document is available at: <http://www.epa.gov/ost/guide/mpp/>

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## **ACKNOWLEDGMENTS AND DISCLAIMER**

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# VOLUME 1

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## CONTENTS

|   |            |
|---|------------|
| <b>SECTION 1. SUMMARY AND SCOPE OF THE REGULATION</b> .....   | <b>1-1</b> |
| 1.1 Purpose of this Rulemaking .....  | 1-1        |
| 1.2 Overview of the MPP Point Source Category .....   | 1-1        |
| 1.3 Summary of the Final MPP Effluent Limitations and Guidelines .....  | 1-3        |
| 1.4 Protection of Confidential Business Information .....   | 1-5        |
| <br>  |            |
| <b>SECTION 2. LEGAL AUTHORITY AND BACKGROUND</b> .....  | <b>2-1</b> |
| 2.1 Legal Authority .....   | 2-1        |
| 2.2 Regulatory Background .....   | 2-1        |
| 2.2.1 Clean Water Act .....   | 2-1        |
| 2.2.1.1 Best Practicable Control Technology Currently Available<br>(BPT)—Section 304(b)(1) of the CWA .....                           | 2-2        |
| 2.2.1.2 Best Conventional Pollutant Control Technology (BCT)—Section<br>304(b)(4) of the CWA .....                                    | 2-2        |
| 2.2.1.3 Best Available Technology Economically Achievable (BAT)—Section<br>304(b)(2)(B) of the CWA .....                              | 2-3        |
| 2.2.1.4 New Source Performance Standards (NSPS)—Section 306 of the<br>CWA .....   | 2-3        |
| 2.2.1.5 Pretreatment Standards for Existing Sources (PSES)—Section 307(b)<br>of the CWA .....   | 2-4        |
| 2.2.1.6 Pretreatment Standards for New Sources (PSNS)—Section 307(b)<br>of the CWA .....  | 2-4        |
| 2.2.1.7 Best Management Practices (BMPs) .....  | 2-4        |
| 2.2.2 Section 304(m) Requirements .....   | 2-5        |
| 2.2.3 Total Maximum Daily Load (TMDL) Program .....   | 2-6        |
| 2.2.4 Pollution Prevention Act .....  | 2-8        |
| 2.2.5 Regulatory Flexibility Act (RFA) as Amended by the Small Business<br>Regulatory Enforcement Fairness Act of 1996 (SBREFA) ..... | 2-9        |
| 2.2.6 Regulatory History of the MPP Industry .....  | 2-10       |
| 2.2.6.1 Meat Facilities .....   | 2-10       |
| 2.2.6.2 Poultry Facilities .....  | 2-12       |
| 2.3 Scope and Applicability of Final Regulation .....   | 2-12       |
| 2.3.1 Meat Facilities .....   | 2-12       |

|   |   |            |
|---|---|------------|
| 2.3.1.1   | Meat Slaughtering and Further Processing Facilities         | 2-12       |
| 2.3.1.2   | Independent Rendering Facilities                            | 2-14       |
| 2.3.2   | Poultry Slaughtering and Further Processing Facilities      | 2-15       |
| <b>SECTION 3. DATA COLLECTION ACTIVITIES</b>                  |   | <b>3-1</b> |
| 3.1   | Summary of EPA’s Site Visit and Sampling Program            | 3-1        |
| 3.1.1   | EPA Site Visits   | 3-1        |
| 3.1.2   | EPA Sampling  | 3-2        |
| 3.1.2.1   | Overview  | 3-2        |
| 3.1.2.2   | Description of Sampling Episodes                            | 3-3        |
| 3.1.2.3   | Sampling Episode Reports                                    | 3-4        |
| 3.1.2.4   | Pollutants Sampled  | 3-5        |
| 3.2   | EPA MPP Industry Surveys                                    | 3-7        |
| 3.2.1   | Overview of Industry Surveys                                | 3-7        |
| 3.2.2   | Description of Survey Instruments                           | 3-7        |
| 3.2.3   | Development of Survey Mailing List                          | 3-9        |
| 3.2.4   | Sample Selection  | 3-10       |
| 3.2.5   | Survey Response   | 3-11       |
| 3.2.6   | Survey Review and Follow-up                                 | 3-11       |
| 3.3   | Other Information Collection Activities                     | 3-13       |
| 3.3.1   | Literature Search   | 3-13       |
| 3.3.2   | Current NPDES Permits                                       | 3-14       |
| 3.3.3   | Discharge Monitoring Reports                                | 3-15       |
| 3.3.4   | Data Submitted by Industry                                  | 3-17       |
| 3.4   | Stakeholder Meetings  | 3-18       |
| <b>SECTION 4. MEAT AND POULTRY PRODUCTS INDUSTRY OVERVIEW</b> |   | <b>4-1</b> |
| 4.1   | Introduction  | 4-1        |
| 4.2   | Meat Products Industry Description                          | 4-2        |
| 4.2.1   | Animal Slaughtering (Except Poultry)                        | 4-2        |
| 4.2.2   | Meat Processed from Carcasses                               | 4-3        |
| 4.3   | Description of Meat First and Further Processing Operations | 4-4        |
| 4.3.1   | Meat Slaughter and Packing Operations                       | 4-5        |
| 4.3.1.1   | Live Animal Receiving and Holding                           | 4-6        |
| 4.3.1.2   | Methods Used to Stun Animals                                | 4-8        |
| 4.3.1.3   | Killing and Bleeding  | 4-8        |

|          |  |      |
|----------|--|------|
| 4.3.1.4  | Hide Removal from Cattle and Sheep and Hair Removal<br>from Hogs ..... | 4-9  |
| 4.3.1.5  | Evisceration .....   | 4-10 |
| 4.3.1.6  | Washing .....  | 4-11 |
| 4.3.1.7  | Chilling .....   | 4-12 |
| 4.3.1.8  | Packaging and Refrigeration or Freezing .....                          | 4-12 |
| 4.3.1.9  | Cleaning Operations .....  | 4-12 |
| 4.3.2    | Meat Further Processing .....  | 4-13 |
| 4.3.2.1  | Raw Material Thawing .....   | 4-13 |
| 4.3.2.2  | Carcass/Meat Handling and Preparation .....                            | 4-14 |
| 4.3.2.3  | Tenderizing and Tempering .....  | 4-20 |
| 4.3.2.4  | Curing .....   | 4-21 |
| 4.3.2.5  | Pickle Application/Injection .....                                     | 4-23 |
| 4.3.2.6  | Cooking, Smoking, and Cooling .....                                    | 4-23 |
| 4.3.2.7  | Mechanically Recovered Meat .....                                      | 4-26 |
| 4.3.2.8  | Canning and Retorting .....  | 4-26 |
| 4.3.2.9  | Freezing .....   | 4-29 |
| 4.3.2.10 | Packaging .....  | 4-29 |
| 4.3.2.11 | Seasonings, Spices, and Sauce Preparation .....                        | 4-30 |
| 4.3.2.12 | Weighing and Batching .....  | 4-30 |
| 4.3.2.13 | Extrusion, Stuffing, and Molding .....                                 | 4-31 |
| 4.3.2.14 | Linking .....  | 4-32 |
| 4.3.2.15 | Casing Peeling .....   | 4-32 |
| 4.3.2.16 | Product Holding/Aging .....  | 4-33 |
| 4.3.2.17 | Bacon Pressing and Slicing .....                                       | 4-33 |
| 4.3.2.18 | Receiving, Storage, and Shipping .....                                 | 4-35 |
| 4.4      | Poultry Processing Industry Description .....                          | 4-36 |
| 4.5      | Description of Poultry First and Further Processing Operations .....   | 4-37 |
| 4.5.1    | Poultry First Processing Operations .....                              | 4-38 |
| 4.5.1.1  | Receiving Areas .....  | 4-39 |
| 4.5.1.2  | Killing and Bleeding .....   | 4-40 |
| 4.5.1.3  | Scalding and Defeathering .....  | 4-41 |
| 4.5.1.4  | Evisceration .....   | 4-43 |
| 4.5.1.5  | Chilling .....   | 4-45 |
| 4.5.1.6  | Packaging and Freezing .....   | 4-46 |
| 4.5.2    | Poultry Further Processing Operations .....                            | 4-47 |

|  |  |            |
|--|--|------------|
| 4.5.2.1                                  | Receiving and Storage  | 4-47       |
| 4.5.2.2                                  | Thawing  | 4-49       |
| 4.5.2.3                                  | Cutting  | 4-50       |
| 4.5.2.4                                  | Deboning   | 4-50       |
| 4.5.2.5                                  | Grinding, Chopping, and Dicing                                 | 4-51       |
| 4.5.2.6                                  | Cooking  | 4-51       |
| 4.5.2.7                                  | Batter and Breading  | 4-52       |
| 4.5.2.8                                  | Mixing and Blending  | 4-52       |
| 4.5.2.9                                  | Stuffing and Injecting   | 4-53       |
| 4.5.2.10                                 | Canning  | 4-54       |
| 4.5.2.11                                 | Final Product Preparation                                      | 4-55       |
| 4.5.2.12                                 | Freezing   | 4-55       |
| 4.5.2.13                                 | Packaging  | 4-55       |
| 4.5.2.14                                 | Shipping   | 4-56       |
| 4.6                                      | Description of Rendering Operations                            | 4-56       |
| 4.6.1                                    | Industry Characterization                                      | 4-56       |
| 4.6.2                                    | Rendering (Meat and Poultry By-Product Processing) Description | 4-57       |
| 4.6.2.1                                  | Edible Rendering   | 4-58       |
| 4.6.2.2                                  | Inedible Rendering   | 4-60       |
| <b>SECTION 5. SUBCATEGORIZATION</b>      |  | <b>5-1</b> |
| 5.1                                      | Subcategorization Process                                      | 5-1        |
| 5.2                                      | Subcategories for the Final Rule                               | 5-4        |
| 5.2.1                                    | Meat Slaughterhouses and Packinghouses—Subparts A, B, C, and D | 5-6        |
| 5.2.2                                    | Meat Further Processing—Subparts F, G, H and I                 | 5-6        |
| 5.2.3                                    | Renderer—Subpart J   | 5-7        |
| 5.2.4                                    | Poultry First Processing—Subpart K                             | 5-7        |
| 5.2.5                                    | Poultry Further Processing—Subpart L                           | 5-7        |
| 5.3                                      | References   | 5-8        |
| <b>SECTION 6. WATER CHARACTERIZATION</b> |  | <b>6-1</b> |
| 6.1                                      | Meat Processing Wastes   | 6-1        |
| 6.1.1                                    | Volume of Wastewater Generated                                 | 6-1        |
| 6.1.2                                    | Description of Waste Constituents and Concentrations           | 6-3        |
| 6.2                                      | Poultry Processing Wastes                                      | 6-7        |
| 6.2.1                                    | Volume of Wastewater Generated                                 | 6-7        |

|       |  |      |
|-------|--|------|
| 6.2.2 | Description of Waste Constituents and Concentrations ..... | 6-9  |
| 6.3   | Rendering Wastewater Generation and Characteristics .....  | 6-13 |
| 6.3.1 | Volume of Wastewater Generated .....                       | 6-13 |
| 6.3.2 | Description of Waste Constituents and Concentrations ..... | 6-16 |
| 6.4.  | Conclusions .....  | 6-18 |
| 6.5   | References .....   | 6-20 |

**SECTION 7. SELECTION OF POLLUTANTS AND POLLUTANT PARAMETERS FOR REGULATION ..... 7-3**

|       |   |      |
|-------|---|------|
| 7.1   | Pollutants Considered for Regulation .....                                      | 7-3  |
| 7.1.1 | Antibiotics and Animal Drugs .....  | 7-4  |
| 7.1.2 | Classical and Biological Pollutants .....                                       | 7-6  |
| 7.1.3 | Toxic and Other Nonconventional Pollutants .....                                | 7-16 |
| 7.2   | Selection of Pollutants of Concern .....  | 7-17 |
| 7.3   | Selection of Pollutants for Regulation .....                                    | 7-20 |
| 7.3.1 | Methodology for Selection of Regulated Pollutants .....                         | 7-20 |
| 7.3.2 | Selection of Regulated Pollutants for Existing and New Direct Dischargers ..... | 7-21 |
| 7.4   | References .....  | 7-26 |

**SECTION 8. WASTEWATER TREATMENT TECHNOLOGIES AND POLLUTION PREVENTION PRACTICES ..... 8-1**

|         |  |      |
|---------|--|------|
| 8.1     | Primary Treatment .....                            | 8-2  |
| 8.1.1   | Screening .....                                    | 8-2  |
| 8.1.1.1 | Static Screens .....                               | 8-3  |
| 8.1.1.2 | Rotary Drum Screens .....                          | 8-4  |
| 8.1.1.3 | Brushed Screens .....                              | 8-5  |
| 8.1.1.4 | Vibrating Screens .....                            | 8-5  |
| 8.1.2   | Catch Basins .....                                 | 8-6  |
| 8.1.3   | Dissolved Air Flotation .....                      | 8-7  |
| 8.1.4   | Flow Equalization .....                            | 8-8  |
| 8.1.5   | Chemical Addition .....                            | 8-9  |
| 8.2     | Secondary Biological Treatment .....               | 8-10 |
| 8.2.1   | Anaerobic Treatment .....                          | 8-10 |
| 8.2.1.1 | Anaerobic Lagoons .....                            | 8-12 |
| 8.2.1.2 | Alternative Anaerobic Treatment Technologies ..... | 8-13 |
| 8.2.2   | Aerobic Treatment .....                            | 8-15 |

|                                      |   |            |
|--------------------------------------|---|------------|
| 8.2.2.1                              | Activated Sludge  | 8-16       |
| 8.2.2.2                              | Lagoons   | 8-20       |
| 8.2.2.3                              | Alternate Aerobic Treatment Technologies  | 8-22       |
| 8.3                                  | Tertiary Treatment  | 8-25       |
| 8.3.1                                | Nutrient Removal  | 8-26       |
| 8.3.1.1                              | Nitrogen Removal  | 8-26       |
| 8.3.1.2                              | Phosphorus Removal  | 8-30       |
| 8.3.2                                | Residual Suspended Solids Removal   | 8-32       |
| 8.3.3                                | Alternative Tertiary Treatment Technologies   | 8-35       |
| 8.3.3.1                              | Nitrogen Removal  | 8-35       |
| 8.3.3.2                              | Residual Suspended Solids Removal   | 8-37       |
| 8.3.3.3                              | Removal of Organic Compounds and Specific Ions  | 8-38       |
| 8.4                                  | Disinfection  | 8-40       |
| 8.4.1                                | Chlorination  | 8-41       |
| 8.4.2                                | Ozonation   | 8-41       |
| 8.4.3                                | Ultraviolet Light   | 8-42       |
| 8.5                                  | Effluent Disposal   | 8-42       |
| 8.6                                  | Solids Disposal   | 8-45       |
| 8.7                                  | Pollution Prevention and Wastewater Reduction Practices                                 | 8-46       |
| 8.7.1                                | Wastewater Minimization and Waste Load Reduction Practices at MPP Facilities            | 8-46       |
| 8.7.2                                | General Water Conservation and Waste Load Reduction Techniques                          | 8-47       |
| 8.7.3                                | Multiple Use and Reuse of Water   | 8-49       |
| 8.7.4                                | Specific Pollution Control Practices Identified by EPA in Previous Regulatory Proposals | 8-51       |
| 8.7.5                                | Nonregulatory Approaches to Pollution Prevention  | 8-54       |
| 8.8                                  | References  | 8-54       |
| <b>SECTION 9. TECHNOLOGY OPTIONS</b> |   | <b>9-1</b> |
| 9.1                                  | Option 1  | 9-2        |
| 9.2                                  | Option 2  | 9-3        |
| 9.3                                  | Option 2+P  | 9-3        |
| 9.4                                  | Option 2.5  | 9-4        |
| 9.5                                  | Option 2.5+P  | 9-6        |
| 9.6                                  | Option 3  | 9-7        |
| 9.7                                  | Option 4  | 9-8        |
| 9.8                                  | Option 5  | 9-9        |



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VOLUME 2

---

**CONTENTS**

**SECTION 10. INCREMENTAL CAPITAL AND OPERATION AND MAINTENANCE COSTS FOR THE FINAL REGULATION . . . . . 10-1**

10.1 Background . . . . . 10-1

10.2 Revised Methodology for Estimating Compliance Costs . . . . . 10-2

10.3 Technology Options Considered as Basis for Effluent Limitations Guidelines and Standards . . . . . 10-4

10.4 Long-term Average Concentrations Used for Estimating Costs for the Technology Options . . . . . 10-5

10.5 Cost Models . . . . . 10-6

    10.5.1 Option 1 Cost Model (Biological Treatment with Limited Nitrification) . . . . . 10-7

    10.5.2 Option 2 Cost Model (Nitrification) . . . . . 10-7

    10.5.3 Option 2.5 Cost Model (Nitrification + Partial Denitrification) . . . . . 10-8

    10.5.4 Option 2.5+P Cost Model (Nitrification + Partial Denitrification + Phosphorus Removal) . . . . . 10-8

    10.5.5 Option 4 Cost Model (Nitrification + Denitrification + Phosphorous Removal) . . . . . 10-8

10.6 Estimating Facility Costs . . . . . 10-9

10.7 Summary of Estimated Compliance Costs . . . . . 10-11

10.8 Supplemental and Sensitivity Analyses . . . . . 10-16

10.9 References . . . . . 10-22

**SECTION 11. POLLUTANT LOADINGS . . . . . 11-1**

11.1 Baseline Pollutant Loadings . . . . . 11-2

    11.1.1 Establishment of Facility Specific Baseline Pollutant Concentrations . . . . . 11-2

        11.1.1.1 Pollutant Concentrations from Analytical Data . . . . . 11-3

        11.1.1.2 Pollutant Concentrations Calculated Based on Associated Pollutant Parameters . . . . . 11-4

        11.1.1.3 Pollutant Concentrations Based on Default Values . . . . . 11-8

        11.1.1.4 Permit Limit Adjustments . . . . . 11-10

    11.1.2 Facility-Specific Baseline Pollutant Loading Estimates . . . . . 11-11

11.2 Technology Options Loadings . . . . . 11-14

    11.2.1 Establishment of Facility-Specific Post-Compliance Pollutant Concentrations . . . . . 11-14

|  |  |             |
|--|--|-------------|
| 11.2.2   | Facility-Specific Technology Option Loading Estimates  | 11-16       |
| 11.3   | Pollutant Removals   | 11-25       |
| 11.4   | Supplemental Analyses  | 11-26       |
| <b>SECTION 12. NON-WATER QUALITY ENVIRONMENTAL IMPACTS</b> |  | <b>12-1</b> |
| 12.1   | Energy Requirements  | 12-1        |
| 12.2   | Air Emissions Impacts  | 12-3        |
| 12.3   | Solid Waste Generation   | 12-5        |
| 12.4   | References   | 12-7        |
| <b>SECTION 13. SELECTED TECHNOLOGY OPTIONS</b>             |  | <b>13-1</b> |
| 13.1   | Effluent Limitations Guidelines and Standards  | 13-1        |
| 13.1.1   | Best Practicable Control Technology Currently Available (BPT)  | 13-1        |
| 13.1.2   | Best Control Technology for Conventional Pollutants (BCT)  | 13-2        |
| 13.1.3   | Best Available Technology Economically Achievable (BAT)  | 13-3        |
| 13.1.4   | New Source Performance Standards (NSPS)  | 13-4        |
| 13.1.5   | Pretreatment Standards for Existing Sources (PSES) and New Sources (PSNS)  | 13-4        |
| 13.2   | Selected Technology Options for Each Subcategory   | 13-5        |
| 13.2.1   | Subcategories A Through D (Meat Slaughtering Facilities)   | 13-5        |
| 13.2.1.1   | Small Facilities in Subcategories A through D (meat first processors that slaughter less than or equal to 50 million pounds per year)                                    | 13-5        |
| 13.2.1.2   | Non-Small Facilities in Subcategories A through D (meat first processors that slaughter more than 50 million pounds per year)  | 13-7        |
| 13.2.2   | Subcategory E (Small Processors)   | 13-17       |
| 13.2.3   | Subcategories F through I (Meat Further Processing Facilities)   | 13-17       |
| 13.2.3.1   | Small Facilities in Subcategories F through I (meat further processors that process more than 6,000 pounds per day but less than or equal to 50 million pounds per year) | 13-18       |
| 13.2.3.2   | Non-Small Facilities in Subcategories F through I (meat further processors that process more than 50 million pounds per year)  | 13-20       |
| 13.2.4   | Subcategory K (Poultry First Processing Facilities)  | 13-25       |
| 13.2.4.1   | Small Facilities in Subcategory K (Poultry first processors that slaughter less than or equal to 100 million pounds per year)  | 13-26       |
| 13.2.4.2   | Non-small Facilities in Subcategory K (Poultry first processing facilities that slaughter more than 100 million pounds per year)   | 13-28       |
| 13.2.5   | Subcategory L (Poultry Further Processing Facilities)  | 13-33       |

---

|  |  |             |
|--|--|-------------|
| 13.2.5.1   | Small Facilities in Subcategory L (poultry further processing facilities that produce less than or equal to 7 million pounds per year) . . . . . | 13-34       |
| 13.2.5.2   | Non-small Facilities in Subcategory L (Poultry further processing facilities that produce more than 7 million pounds per year) . . . . .         | 13-35       |
| 13.2.6   | Subcategory J (Independent Renderers) . . . . .  | 13-41       |
| <br><b>SECTION 14. LIMITATIONS AND STANDARDS: DATA SELECTION AND CALCULATION . . . .</b> |  | <b>14-1</b> |
| 14.1   | Overview of Data Selection . . . . .   | 14-2        |
| 14.2   | Episode Selection for Each Subcategory . . . . .   | 14-4        |
| 14.2.1   | Poultry Subcategories . . . . .  | 14-4        |
| 14.2.1.1   | Exclusions of All Data from Episodes . . . . .   | 14-4        |
| 14.2.1.2   | Pollutant Specific Exclusions . . . . .  | 14-5        |
| 14.2.2   | Meat Subcategories . . . . .   | 14-6        |
| 14.2.2.1   | Exclusions of All Data from Episodes . . . . .   | 14-6        |
| 14.2.2.2   | Pollutant Specific Exclusions . . . . .  | 14-7        |
| 14.3   | Censoring Types Associated with Data . . . . .   | 14-7        |
| 14.4   | Data Substitutions and Exclusions . . . . .  | 14-8        |
| 14.4.1   | Data Substitutions . . . . .   | 14-8        |
| 14.4.2   | Data Exclusions . . . . .  | 14-9        |
| 14.5   | Data Aggregation . . . . .   | 14-10       |
| 14.5.1   | Aggregation of Field Duplicates . . . . .  | 14-11       |
| 14.5.2   | Aggregation of Grab Samples . . . . .  | 14-12       |
| 14.6   | Overview of Limitations . . . . .  | 14-13       |
| 14.6.1   | Objective . . . . .  | 14-13       |
| 14.6.2   | Selection of Percentiles . . . . .   | 14-15       |
| 14.6.3   | Compliance with Limitations . . . . .  | 14-16       |
| 14.7   | Summary of the Limitations . . . . .   | 14-19       |
| 14.8   | Estimation of Limitations . . . . .  | 14-19       |
| 14.8.1   | Episode Long-Term Averages and Variability Factors . . . . .   | 14-19       |
| 14.8.2   | Limitations . . . . .  | 14-21       |
| 14.8.2.1   | Poultry Subcategory, K . . . . .   | 14-21       |
| 14.8.2.2   | Poultry Further Processing Subcategory, Subcategory L . . . . .  | 14-30       |
| 14.8.3   | Meat Subcategories . . . . .   | 14-31       |
| 14.9   | Summary of Final Limitations . . . . .   | 14-32       |

|   |             |
|---|-------------|
| <b>SECTION 15. REGULATORY IMPLEMENTATION</b> .....  | <b>15-1</b> |
| 15.1 Applicability of the Revised Part 432 Effluent Limitations Guidelines and Standards .....  | 15-1        |
| 15.2 Compliance Dates .....   | 15-3        |
| 15.3 Calculation of NPDES Permit Limitations .....  | 15-4        |
| 15.3.1 Meat and Independent Renderer Facilities .....   | 15-5        |
| 15.3.2 Poultry Facilities .....   | 15-9        |
| 15.3.3 Mixed Meat and Poultry Production Facilities .....   | 15-10       |
| 15.3.4 Facilities Covered by Additional Guidelines or Technology-Based Effluent Limitations Established on a Case-By-Case Basis ..... | 15-11       |
| 15.3.5 Facilities With Highly Variable or Seasonal Production .....   | 15-12       |
| 15.4 Other NPDES Permit Conditions .....  | 15-13       |
| 15.4.1 Upset and Bypass Provisions .....  | 15-13       |
| 15.4.2 Best Management Practices .....  | 15-13       |
| 15.4.3 Compliance Monitoring .....  | 15-14       |
| 15.5 Variances and Modifications .....  | 15-15       |
| 15.5.1 Fundamentally Different Factors Variances .....  | 15-15       |
| 15.5.2 Economic Variances .....   | 15-17       |
| 15.5.3 Water Quality Variances .....  | 15-17       |
| <br>  |             |
| <b>SECTION 16. GLOSSARY</b>   |             |
| <b>APPENDIX A. ANALYTICAL METHODS AND BASELINE VALUES</b>   |             |
| <b>APPENDIX B. SURVEY DESIGN AND CALCULATION OF NATIONAL ESTIMATES</b>  |             |
| <b>APPENDIX C. 40 CFR PART 432</b>  |             |
| <b>APPENDIX D. AGGREGATED DAILY DATA FOR PROPOSED POLLUTANTS AND SUBCATEGORIES</b>  |             |
| <b>APPENDIX E. ATTACHMENTS TO SECTION 13</b>  |             |
| <b>APPENDIX F. ATTACHMENTS TO SECTION 14</b>  |             |

# SECTION 1

## **SUMMARY AND SCOPE OF THE REGULATION**

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This section provides an overview and summarizes the Meat and Poultry Products (MPP) Point Source Category regulation. Section 1.1 describes the purpose of the rulemaking, and Section 1.2 presents an overview of the MPP Point Source Category. Section 1.3 summarizes the final MPP rulemaking. Finally, Section 1.4 explains how confidential business information used to develop the regulation was protected.

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

Pursuant to the Clean Water Act (CWA), the United States Environmental Protection Agency (EPA) is promulgating effluent limitations guidelines and standards (ELGs) for the MPP Point Source Category (40 CFR Part 432). The ELGs for the final rule apply to existing and new MPP facilities that are direct dischargers. Direct discharging facilities are those that directly release wastewater to surface waters of the United States (e.g., lakes, rivers, oceans). This document and the administrative record for this rulemaking provide the technical basis for these final limitations and standards.

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

The MPP 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 using carcasses slaughtered at other facilities and/or their own facilities, or both types of operations. Companies that own meat or poultry product facilities may also own the

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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 products* include all poultry products from broilers, other young chickens, hens, fowl, mature chickens, turkeys, capons, geese, ducks, exotic poultry (e.g., ostriches), and small game such as quail, pheasants, and rabbits. This category may include species not classified as poultry by the United States Department of Agriculture's (USDA's) Food Safety and Inspection Service (FSIS) and that may or may not be under the USDA FSIS voluntary inspection.

*Section 1. Purpose and Summary of the Regulation*

facilities that raise the animals. These other enterprises (e.g., feedlots) are not covered by the MPP ELGs.

The MPP industry encompasses primarily four North American Industry Classification System (NAICS) codes, which are developed by the Department of Commerce. These NAICS codes are Animal Slaughtering (Except Poultry), NAICS 311611; Meat Processed from Carcasses, NAICS 311612; Poultry Processing, NAICS 311615; and Rendering and Meat By-product Processing, NAICS 311613.

The MPP industry includes almost 6,620 facilities, of which an estimated 4,711 discharge process wastewater (Table 1-1). Of the facilities discharging process wastewater, EPA estimates that 94 percent are indirect dischargers (i.e., dischargers that send their wastewater to a publicly owned treatment plant) and 6 percent are direct dischargers. The Agency estimates that 1,908 facilities either discharge no process wastewater or use contract haulers. See Section 5 for a description of how EPA subcategorized MPP facilities.

**Table 1-1.** National Estimates of Number of MPP Facilities

| 40 CFR 432 Subcategory | Description                   | Facility Size |               |                       |       |             |               |                       |      |
|------------------------|-------------------------------|---------------|---------------|-----------------------|-------|-------------|---------------|-----------------------|------|
|                        |                               | Small         |               |                       |       | Non-small   |               |                       |      |
|                        |                               | Direct only   | Indirect only | Both Direct/ Indirect | Zero  | Direct only | Indirect only | Both Direct/ Indirect | Zero |
| A, B, C, D             | Meat First Processors         | 63            | 738           | 0                     | 929   | 45          | 74            | 2                     | 18   |
| E                      | Small Meat Further Processors | 22            | 1,755         | 3                     | 640   | --          | --            | --                    | --   |
| F, G, H, I             | Meat Further Processors       | 22            | 765           | 0                     | 73    | 4           | 134           | 0                     | 12   |
| J                      | Independent Renderers         | 0             | 10            | 0                     | 5     | 19          | 65            | 0                     | 33   |
| K                      | Poultry First Processors      | 17            | 77            | 0                     | 51    | 77          | 107           | 2                     | 20   |
| L                      | Poultry Further Processors    | 7             | 532           | 0                     | 94    | 5           | 166           | 0                     | 31   |
| Total                  |                               | 131           | 3,877         | 3                     | 1,793 | 150         | 546           | 4                     | 115  |

Source: EPA Screener Survey.

EPA estimated engineering compliance costs for each of the technology options for a set of MPP facilities, and then used these facilities to estimate compliance costs for the entire MPP industry. The Agency also estimated the pollutant loadings and removals associated with each technology option. 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 and Environmental Benefits Analysis of the Final Meat and Poultry Products Rule* [EPA-821-R-04-010]. Details on the cost-effectiveness analysis, water quality impacts, and potential benefits for each technology option can be found in the same document.)

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

EPA is establishing regulations for 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 establishing revised ELGs for 9 of the 10 existing subcategories of the meat products industry: 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 establishing two new MPP subcategories with effluent guidelines and performance standards for the Poultry First Processing (slaughtering) and Poultry Further Processing categories. EPA is not establishing any new or revised ELGs or pretreatment standards for the small processor subcategory.

Table 1-2 summarizes the regulatory changes that serve as the basis for the final ELGs and standards promulgated for the MPP industry. For descriptions and discussion of the subcategories, see Section 5; for a discussion of treatment technologies in use by MPP facilities, see Section 8; for a discussion of the process wastewater generated by these subcategories, see Section 6; and for a discussion of the promulgated limits, see Section 13.

**Table 1-2. Summary of Technology Bases for Promulgated MPP Limitations and Standards**

| Subcategory                      | Size Threshold for Final Rule             | Facility Type | Final Rule  |
|----------------------------------|---|---------------|---|
| A- D: Meat First Processors      | Non-small (>50 million lbs/yr)            | Existing      | BPT: Option 2/2.5 for ammonia (as nitrogen), no revision for conventionals<br>BAT: Option 2.5 for total nitrogen                        |
|                                  |   | New           | NSPS = BPT (Option 2) for ammonia (as nitrogen)<br>NSPS = BAT (Option 2.5) for total nitrogen<br>No revision for conventionals          |
|                                  | Small (≤50 million lbs/yr)                | Existing/New  | No revision   |
| E: Small Meat Further Processors | Small (≤1,560,000 lbs/yr)                 | Existing/New  | No revision   |
| F-I: Meat Further Processors     | Non-small (>50 million lbs/yr)            | Existing      | BPT: no revision<br>BAT: Option 2.5 for total nitrogen, no revision for ammonia (as nitrogen)   |
|                                  |   | New           | NSPS = BAT (Option 2.5) for total nitrogen<br>NSPS = Option 2/2.5 for ammonia (as nitrogen)<br>NSPS = no revision for conventionals     |
|                                  | Small (>1,560,000 but ≤50 million lbs/yr) | Existing/New  | No revision   |
| J: Independent Renderers         | >10 million lbs/yr)                       | Existing      | BPT: no revision<br>BAT: OPTION 2.5 for total nitrogen, no revision for ammonia (as nitrogen)   |
|                                  |   | New           | NSPS = BAT (Option 2/2.5) for total nitrogen<br>NSPS = no revision for ammonia (as nitrogen) and conventionals                          |
| K: Poultry First Processors      | Non-small (>100 million lbs/yr)           | Existing      | BPT: Option 2/2.5 for ammonia (as nitrogen) and conventionals<br>BAT: Option 2.5 for total nitrogen, BAT= BPT for ammonia (as nitrogen) |
|                                  |   | New           | NSPS = BPT (Option 2/2.5) for ammonia (as nitrogen) and conventionals<br>NSPS = BAT (Option 2.5) for total nitrogen                     |
|                                  | Small (≤100 million lbs/yr)               | Existing      | No Regulation   |
|                                  |   | New           | Option 2/2.5 for ammonia (as nitrogen), Option 2 for conventionals  |



**Table 1-2.** Summary of Technology Bases for Promulgated MPP Limitations and Standards  
(Continued)

| Subcategory                  | Size Threshold for Final Rule    | Facility Type | Final Rule  |
|------------------------------|----------------------------------|---------------|---|
| L: Poultry Further Processor | Non-Small (>7 million pounds/yr) | Existing      | BPT: Option 2/2.5 for ammonia (as nitrogen) and Option 2 for conventionals<br>BAT: Option 2.5 for total nitrogen,<br>BAT= BPT for ammonia (as nitrogen) |
|                              |                                  | New           | NSPS = BPT (Option 2/2.5) for ammonia (as nitrogen) and Option 2 for conventionals<br>NSPS = BAT (Option 2.5) for total nitrogen                        |
|                              | Small (≤ 7 million pounds/yr)    | Existing      | No Regulation   |
|                              |                                  | New           | Option 2/2.5 for ammonia (as nitrogen) and Option 2 for conventionals   |

BCT = Best practicable control technology currently available.  
 BAT = Best available technology economically achievable.  
 NSPS = Best available demonstrated control technology for new source performance standards.  
 BCT = Best conventional pollutant control technology.  
 PSES = Pretreatment standards for existing sources.  
 PSNS = Pretreatment standards for new sources.

#### 1.4 PROTECTION OF CONFIDENTIAL BUSINESS INFORMATION

EPA recognizes that certain data in the rulemaking record have been claimed as confidential business information (CBI). The Agency has withheld CBI from the public record in the MPP docket. In addition, the Agency has withheld from disclosure some data not claimed as CBI because the release of the data could indirectly reveal CBI. EPA has also aggregated certain data in the public record, masked facility identities, or used other strategies to prevent the disclosure of CBI. The Agency’s approach to CBI protection ensures that the data in the public record both explain the basis for the final rule and provide the opportunity for public comment, without compromising data confidentiality.