

Title 40—Protection of Environment

CHAPTER I—ENVIRONMENTAL
PROTECTION AGENCYPART 405—EFFLUENT LIMITATIONS
GUIDELINES FOR STANDARDS OF PER-
FORMANCE AND PRETREATMENT
STANDARDS FOR NEW SOURCES FOR
THE DAIRY PRODUCTS PROCESSING
INDUSTRY POINT SOURCE CATEGORY

On December 20, 1973, notice was published in the FEDERAL REGISTER (38 FR 35250), that the Environmental Protection Agency (EPA or Agency) was proposing effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources within the receiving stations, the fluid products, the cultured products, the butter, the cottage cheese and cultured cream cheese, the natural and processed cheese, the fluid mix for ice cream and other frozen desserts, the ice cream, frozen desserts, novelties and other dairy desserts, the condensed milk, the dry milk, the condensed whey and the dry whey subcategories of the dairy products processing industry category of point sources.

The purpose of this notice is to establish final effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources in the dairy products processing industry category of point sources, by amending 40 CFR Chapter I, Subchapter N, to add a new Part 405. This final rulemaking is promulgated pursuant to sections 301, 304 (b) and (c), 306 (b) and (c) and 307(c) of the Federal Water Pollution Control Act, as amended, (the Act); 33 U.S.C. 1251, 1311, 1314 (b) and (c), 1316 (b) and (c) and 1317(c); 86 Stat. 816 et seq.; Pub. L. 92-500. Regulations regarding cooling water intake structures for all categories of point sources under section 316(b) of the Act will be promulgated in 40 CFR Part 402.

In addition, the EPA is simultaneously proposing a separate provision which appears in the proposed rules section of the FEDERAL REGISTER, stating the application of the limitations and standards set forth below to users of publicly owned treatment works which are subject to pretreatment standards under section 307(b) of the Act. The basis of that proposed regulation is set forth in the associated notice of proposed rulemaking.

The legal basis, methodology and factual conclusions which support promulgation of this regulation were set forth in substantial detail in the notice of public review procedures published August 6, 1973 (38 FR 21202) and in the notice of proposed rulemaking for the dairy products processing industry category. In addition, the regulations as proposed were supported by two other documents: (1) The document entitled "Development Document for Proposed Effluent Limitations Guidelines and New Source Performance Standards for the Dairy Products Processing Point Source Category" (January 1974) and (2) the document entitled "Economic Analysis of Proposed Effluent Guidelines, for the

Dairy Processing Industry" (November 1973). Both of these documents were made available to the public and circulated to interested persons at approximately the time of publication of the notice of proposed rulemaking.

Interested persons were invited to participate in the rulemaking by submitting written comments within 30 days from the date of publication. Prior public participation in the form of solicited comments and responses from the States, Federal agencies, and other interested parties were described in the preamble to the proposed regulation. The EPA has considered carefully all of the comments received and a discussion of these comments with the Agency's response there-to follows.

(a) *Summary of comments.* The following responded to the request for written comments contained in the preamble to the proposed regulation: the U.S. Department of Health, Education and Welfare; U.S. Department of the Interior; U.S. Department of Commerce; U.S. Department of Agriculture; State of New York Department of Environmental Conservation; State of Wisconsin Department of Natural Resources; Dairylea Cooperative Inc.; Kraftco Corporation; Land O'Lakes, Inc.; Foremost Foods Company; Mid-America Dairymen, Inc.; North Carolina Dairy Products Association, Inc.; National Milk Producers Federation; and the Dairy Industry Committee.

Each of the comments received was carefully reviewed and analyzed. The following is a summary of the significant comments and the Agency's response to those comments.

(1) The comment was made that proposed guidelines are only partially responsive to the goals and objectives of the Act in that they will serve to control the gross organic pollutant load but they will not contribute to the elimination of more insidious pollutants such as pesticides and drugs that have been proven toxic to both terrestrial and aquatic biota. Specifically, reference is made to the Development Document noting the use of sanitizers in the dairy products industry and the relatively low chloride levels in the wastes. Documentation in support of the comment refers to toxicity of power plant chemicals, ecological effects of pesticides on non-target species, and the effects of salinity and salinity changes on life in coastal waters.

During the course of the supportive study for the guidelines, extensive data were compiled on the use of cleaners and sanitizers in dairy products processing. Re-examination of these data support the position that the concentrations of such materials in the raw waste loads are very low, and these levels will be reduced moderately through entrainment in the sludge removed during biological treatment. Further, highly successful operation of biological treatment by plants typifying sanitation practices within the industry indicates that the subject materials are below significant levels even without dilution afforded by receiving waters. The added complexity

of establishing limits and monitoring for cleaners and sanitizers does not appear justifiable.

(2) Several commenters questioned the adequacy of the data base for both the economic impact evaluation and the technical development of the guidelines. No additional or alternative sources of data were indicated, however.

The data base represents the best available from Federal, State and local agencies historically closely associated with the industry and from the industry itself, supplemented by data generated by on-site studies by EPA's contractors. The Agency considers the data bases adequate for the determination of appropriate effluent limitations and the evaluation of their economic impact.

(3) The comment was made that the economic impact of the guidelines, as reflected by the projected plant closures, is unacceptably high, and severe as it is expected to be, is undoubtedly understated.

In reality, the economic impact of the guidelines should be less severe than that projected in the supplementary economic analysis, since all factors were incorporated in the most conservative (i.e., unfavorable) light. A number of ameliorating factors were recognized, such as limited or local custom markets, but no weight was given to the reduction of plant closures attributable to the existence of such markets. The indicated ability of plants to meet the costs of pollution control was reduced to the minimum by inclusion of depreciation based on current replacement costs. This is especially notable for those classes of plants for which most closures are projected, i.e., small old plants which under typical practices should be completely depreciated at present. Moreover, many of the projected closures (approximately 70 percent) do not represent closures truly attributable to the guidelines, but rather acceleration of 1977-83 baseline closures (plant closures expected as the result of other market forces). The effluent guidelines, however, have been modified to reduce the economic impact on those segments of the industry that were projected to experience large numbers of closures.

(4) Several commenters suggested that the guidelines require further subcategorization based on size (because of unequal economic impact associated with size) and final product (e.g., swiss cheese vs. cheddar cheese).

The impact of the guidelines in regard to various sizes of plants is one of economics of size, as related to both profitability and treatment costs per unit of production, and is not related to technical feasibility. The guidelines have been amended to significantly reduce their economic impact (projected plant closures are reduced from 573 to 102, for example) by providing for a lesser degree of pollutant elimination for small plants that is readily attainable at greatly reduced treatment costs. Further reduction of the economic impact would require discharge of raw waste by some segments of the industry, a result inconsistent with Pub. L. 92-500. Examination of all avail-

able information, which includes data from plants producing more than a dozen varieties of natural and processed cheeses (the subcategory cited as an example), does not justify further sub-categorization based on very specific final products.

(5) The comment was made that the proposed regulation does not adequately identify the level of best practicable control technology currently available. Section 304 Pub. L. 92-500 requires that EPA "identify * * * the degree of effluent reduction attainable through the application of best practicable control technology current available * * *". It is thus implied that for each industry subcategory, one level of treatment must be identified as best practicable control technology currently available. Additionally, in-plant changes were employed with the best practicable control technology, and the intent of Congress is for 1977 guidelines to be based upon end-of-pipe technology, not in-plant changes.

First, the in-plant considerations are not of the type and magnitude that would constitute "process and procedure innovations", but are based on good house-keeping and management (e.g., automatic shut-off valves, drain screens, liquid level controls and drip shields) as practiced by the better operations within the industry. Therefore, best practicable control technology currently available for this industry shall mean existing good water and waste water management within the plant followed by efficient biological treatment of the process waste waters. The guidelines limitations indicate the degree of effluent reduction currently attained by the combination of good water and waste water management within the plant and efficient end-of-pipe biological treatment. That they are indicative of the best practicable control technology currently available is supported by the fact that they represent the current effluent control attained by approximately the best quartile of the operations on which information is available. Alternative technologies to achieve the effluent limitations are presented in the Development Document together with associated investment and operating costs.

(6) The reasonableness of the 1983 limitations, particularly from the standpoint of costs, was questioned.

The 1983 limitations are currently attained by a more limited number of plants within the industry. Approaches vary from highly sophisticated in-plant control followed by typical efficient biological treatment to typically good in-plant control combined with typical efficient biological treatment and a polishing pond, sand filter, or other relatively low cost polishing operation. Several plants with exemplary practices throughout the chain (in-plant and end-of-pipe) are now attaining effluent discharges of better quality than those required by the guidelines limitations.

(7) Several comments were made questioning the need for any pretreatment of dairy wastes, much less the stringent pretreatment requirements proposed for new sources.

Neither the pretreatment standards promulgated for new sources nor the proposed pretreatment standards for existing sources are stringent. Under both standards, the wastes from most dairy products processing are considered compatible with public treatment systems and may be discharged without pretreatment, subject to the general provisions of 40 CFR Part 128 and State or local regulations.

(8) The comment was made that the guidelines do not indicate they are preliminary and subject to modification. The commenter expressed apprehension that State and regional personnel unfamiliar with the guidelines could impose more restrictive local requirements.

Though they have not been formally incorporated in guidelines documents, the provisions for review and revision, contained in Pub. L. 92-500 are, of course, applicable to the guidelines. While provisions have been included in the guidelines for less restrictive permit limitations when fully justified, the guidelines constitute national minimum requirements and there is no intent within either Pub. L. 92-500 or the guidelines to abridge the right of State or local authorities to impose more restrictive requirements.

(9) Several comments were made that the proposed guidelines required a higher degree of treatment for the dairy industry than the requirements for secondary treatment applicable to municipalities in regard to BOD₅ and suspended solids. These commenters suggested that the requirements for the two should be identical.

The guidelines as promulgated require discharge of an effluent of essentially the same quality as that attained by municipalities applying secondary treatment. This does require greater efficiency in terms of present waste reduction on the part of industry, but such reductions have been shown to be practicable.

(10) The comment was made that the receiving stations subcategory should include whey to accommodate the portion of raw waste load attributable to the receipt of whey in processing plants.

Allowances for raw waste contributions from receiving departments in dairy products plants have been included in the calculation of effluent limitations established for the various subcategories.

(11) The comment was made that there are many processes, such as lactose fractionation, lactose refining and lactose fermentation which have not been mentioned in the guidelines and for which no waste discharge allowance has been made.

The processes mentioned are not typical dairy products processes and are more appropriately considered in limitations for industry categories such as pharmaceuticals and miscellaneous foods.

(12) The comment was made that barometric condensers should be taken into account in the guidelines for those subcategories in which they are normally employed, and that treatment of such condensers should be clarified in the final Development Document. The eco-

nommic impact of the position taken should be considered.

The regulation of discharges from barometric condensers is more fully covered in the support documents. The guidelines have been amended to permit once-through use of barometric condenser water without treatment for those segments in which installations of cooling towers might impose undue economic hardship.

(b) *Revision of the proposed regulation prior to promulgation.* (1) To lessen the economic impact of the regulation, separate sets of limitations, reflecting a slightly reduced level of pollutant removal that is attainable at considerably lower cost, have been established for small plants in each subcategory.

(2) Provision has been made for once-through use of barometric condenser water under conditions of controlled treatment for small plants in the condensed milk and condensed whey subcategories to reduce the economic impact on plants in these segments.

(3) The limitations applicable to larger plants in all subcategories have been modified to reflect a more uniform discharge quality among the subcategories. In general, this has resulted in less than a ten percent change from the values contained in the proposed regulations.

(4) Subsequent review has affirmed the somewhat abnormal settling characteristics associated with suspended solids in biological treatment systems handling dairy products wastes. Consequently, the limitations for total suspended solids now reflect a level of discharge slightly higher than those for biochemical oxygen demand.

(5) The language of the proposed pretreatment requirements for new sources has been modified to indicate clearly the general compatibility of dairy products wastes with publicly-owned treatment systems, subject to the general provisions of 40 CFR 128 and State and local regulations.

(6) Section 304(b)(3)(B) of the Act provides for "guidelines" to implement the uniform national standards of section 301(b)(1)(A). Thus, Congress recognized that some flexibility was necessary in order to take into account the complexity of the industrial world with respect to the practicability of pollution control technology. In conformity with the Congressional intent and in recognition of the possible failure of these regulations to account for all factors bearing on the practicability of control, a provision allowing flexibility in the strict application of the limitations representing best practicable control technology currently available has been added to each subpart to account for special circumstances that may not have been adequately accounted for when these regulations were developed.

(7) The proposed division of receiving stations into those receiving milk in cans and those receiving milk in bulk has been deleted. Under the division by size range contained in the final regulation the division based on mode of receipt of milk is no longer valid. Those receiving stations

receiving any appreciable portion of their milk in cans will fall within the lower size range segment of the subcategory, and the less stringent limitations applicable to this segment will readily accommodate the variation attributable to receipt of milk in cans.

(c) *Economic impact.* The investment costs for 1977, based on recommended technology for the various segments of the industry, range between 5 and 25 percent of current fixed investment depending on the type of product and size of plant. Annual costs for the 1977 standards vary from 0.2 to 1.5 percent of sales. For 1983 it is assumed that the standards will be met through improved treatment involving low-cost polishing operations (e.g., sand filtration) or through improved in-plant control and utilization of 1977 treatment facilities. Incremental capital investments and annual costs for additions to treatment facilities required to meet the 1983 limitations will be less than half those for 1977. Depending on their specific nature, the costs of inplant control would be very variable, but much of the investment would be returned by value of materials recovered through improved control.

These costs do not appear seriously to threaten the long-term production or viability of the industry. The 1977 standards should result in price increases of from zero to 1.1 percent at the wholesale level. It is estimated that approximately 102 plant closures could result in 1977 due to the guidelines. These plants, representing only 0.2 percent of current industry production and about 850 employees (or 0.3 percent of total employment in the industry), are of questionable viability in light of the historical trend for closure of the small, old, relatively inefficient marginal plants within the dairy products processing industry. The plant closures tentatively attributed to impact of the guidelines represent in the main an acceleration of 1977-83 baseline closures which would occur even without imposition of guidelines. It is also estimated that the number of communities affected will approximate the number of plant closures. The impact of the 1983 guidelines is much less, approximately zero to 0.5 percent price increase at the wholesale level and no additional plant closures. Neither the 1977 nor the 1983 standards are expected to have any noticeable effects on the industry's growth or the Nation's balance of trade.

(d) *Cost-benefit analysis.* The detrimental effects of the constituents of waste waters now discharged by point sources within the dairy products processing industry point source category are discussed in Section VI of the report entitled "Development Document for Effluent Limitations Guidelines Dairy Products Processing Industry Point Source Category". It is not feasible to quantify in economic terms, particularly on a national basis, the costs resulting from the discharge of these pollutants to our Nation's waterways. Nevertheless, as indicated in Section VI, the pollutants

discharged have substantial and damaging impacts on the quality of water and therefore on its capacity to support healthy populations of wildlife, fish and other aquatic wildlife and on its suitability for industrial, recreational and drinking water supply uses.

The total cost of implementing the effluent limitations guidelines includes the direct capital and operating costs of the pollution control technology employed to achieve compliance and the indirect economic and environmental costs identified in Section VIII and in the supplementary report entitled "Economic Analysis of Proposed Effluent Guidelines DAIRY PROCESSING INDUSTRY" (November 1973). Implementing the effluent limitations guidelines will substantially reduce the environmental harm which would otherwise be attributable to the continued discharge of polluted waste waters from existing and newly constructed plants in the dairy products processing industry. The Agency believes that the benefits of thus reducing the pollutants discharged justify the associated costs which, though substantial in absolute terms, represent a relatively small percentage of the total capital investment in the industry.

(e) Publication of information on processes, procedures, or operating methods which result in the elimination or reduction of the discharge of pollutants.

In conformance with the requirements of section 304(c) of the Act, a manual entitled, "Development Document for Effluent Limitations Guidelines and New Source Performance Standards for the Dairy Products Processing Industry Point Source Category," is being published and will be available for purchase from the Government Printing Office, Washington, D.C. 20402 for a nominal fee.

(f) *Final rulemaking.* In consideration of the foregoing, 40 CFR Ch. I, Subchapter N is hereby amended by adding a new Part 405, Dairy Products Processing Industry Point Source Category, to read as set forth below. An order of the Federal District Court for the District of Columbia entered in "NRDC v. Train" (Civ. No. 1609-73) on November 27, 1973, required that the Administrator sign final effluent limitations guidelines for this industry category by March 22, 1974. That order was subsequently modified on March 14, 1974, and the date for signing extended until April 22, 1974. Thereafter, on March 15, 1974, the District Court ordered that the effective date for effluent limitations guidelines established by its November 27 order remain applicable and not be affected by the extension in the publication date. The effective date for effluent limitations guidelines for this industry established by the Court's November 27 order is May 19, 1974. Accordingly, good cause is found for the final regulation promulgated as set forth below to be effective on May 28, 1974.

Dated: May 15, 1974.

JOHN QUARLES,
Acting Administrator.

Subpart A—Receiving Stations Subcategory

- Sec.
405.10 Applicability; description of the receiving stations subcategory.
405.11 Specialized definitions.
405.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
405.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
405.14 [Reserved]
405.15 Standards of performance for new sources.
405.16 Pretreatment standards for new sources.

Subpart B—Fluid Products Subcategory

- 405.20 Applicability; description of the fluid products subcategory.
405.21 Specialized definitions.
405.22 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
405.23 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
405.24 [Reserved]
405.25 Standards of performance for new sources.
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Subpart C—Cultured Products Subcategory

- 405.30 Applicability; description of the cultured products subcategory.
405.31 Specialized definitions.
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405.33 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
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Subpart D—Butter Subcategory

- 405.40 Applicability; description of the butter subcategory.
405.41 Specialized definitions.
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Subpart E—Cottage Cheese and Cultured Cream Cheese Subcategory

- Sec. 405.50 Applicability; description of the cottage cheese and cultured cream cheese subcategory.
- 405.51 Specialized definitions.
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Subpart F—Natural and Processed Cheese Subcategory

- 405.60 Applicability; description of the natural and processed cheese subcategory.
- 405.61 Specialized definitions.
- 405.62 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 405.63 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 405.64 [Reserved]
- 405.65 Standards of performance for new sources.
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Subpart G—Fluid Mix for Ice Cream and Other Frozen Desserts Subcategory

- 405.70 Applicability; description of the fluid mix for ice cream and other frozen desserts subcategory.
- 405.71 Specialized definitions.
- 405.72 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 405.73 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 405.74 [Reserved]
- 405.75 Standards of performance for new sources.
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Subpart H—Ice Cream, Frozen Desserts, Novelties and Other Dairy Desserts Subcategory

- 405.80 Applicability; description of the ice cream, frozen dessert, novelties and other dairy desserts subcategory.
- 405.81 Specialized definitions.
- 405.82 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

- Sec. 405.83 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
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Subpart I—Condensed Milk Subcategory

- 405.90 Applicability; description of the condensed milk subcategory.
- 405.91 Specialized definitions.
- 405.92 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 405.93 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 405.94 [Reserved]
- 405.95 Standards of performance for new sources.
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Subpart J—Dry Milk Subcategory

- 405.100 Applicability; description of the dry milk subcategory.
- 405.101 Specialized definitions.
- 405.102 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 405.103 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 405.104 [Reserved]
- 405.105 Standards of performance for new sources.
- 405.106 Pretreatment standards for new sources.

Subpart K—Condensed Whey Subcategory

- 405.110 Applicability; description of the condensed whey subcategory.
- 405.111 Specialized definitions.
- 405.112 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 405.113 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 405.114 [Reserved]
- 405.115 Standards of performance for new sources.
- 405.116 Pretreatment standards for new sources.

Subpart L—Dry Whey Subcategory

- 405.120 Applicability; description of the dry whey subcategory.
- 405.121 Specialized definitions.
- 405.122 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

- Sec. 405.123 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

- 405.124 [Reserved]
- 405.125 Standards of performance for new sources.
- 405.126 Pretreatment standards for new sources.

AUTHORITY: Secs. 301, 304 (b) and (c), 306 (b) and (c) and 307(c) of the Federal Water Pollution Control Act, as amended (the Act); 33 U.S.C. 1251, 1311, 1314 (b) and (c), 1316 (b) and (c) and 1317(c); 86 Stat. 816, et seq.; Pub. L. 92-500.

Subpart A—Receiving Stations Subcategory

§ 405.10 Applicability; description of the receiving stations subcategory.

The provisions of this subpart are applicable to discharges resulting from the operation of receiving stations engaged in the assembly and reshipment of bulk milk for the use of manufacturing or processing plants.

§ 405.11 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "BOD5 input" shall mean the biochemical oxygen demand of the materials entered into process. It can be calculated by multiplying the fats, proteins and carbohydrates by factors of 0.890, 1.031 and 0.691 respectively. Organic acids (e.g., lactic acids) should be included as carbohydrates. Composition of input materials may be based on either direct analyses or generally accepted published values.

§ 405.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guide-

lines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

(a) For receiving stations receiving more than 150,000 lb/day of milk equivalent (15,600 lb/day or more of BOD₅ input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD ₅ input)	
BOD ₅	0.475	0.190
TSS.....	.713	.285
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD ₅ input)	
BOD ₅	0.043	0.019
TSS.....	.071	.029
pH.....	Within the range 6.0 to 9.0.	

(b) For receiving stations receiving 150,000 lb/day or less of milk equivalent (under 15,600 lb/day of BOD₅ input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD ₅ input)	
BOD ₅	0.625	0.313
TSS.....	.933	.469
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD ₅ input)	
BOD ₅	0.033	0.031
TSS.....	.024	.047
pH.....	Within the range 6.0 to 9.0.	

§ 405.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

tion, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

(a) For receiving stations receiving more than 150,000 lb/day of milk equivalent (15,600 lb/day or more of BOD₅ input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD ₅ input)	
BOD ₅	0.100	0.050
TSS.....	.126	.063
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD ₅ input)	
BOD ₅	0.010	0.005
TSS.....	.013	.003
pH.....	Within the range 6.0 to 9.0.	

(b) For receiving stations receiving 150,000 lb/day or less of milk equivalent (under 15,600 lb/day of BOD₅ input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD ₅ input)	
BOD ₅	0.150	0.075
TSS.....	.188	.094
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD ₅ input)	
BOD ₅	0.015	0.008
TSS.....	.019	.009
pH.....	Within the range 6.0 to 9.0.	

§ 405.14 [Reserved]

§ 405.15 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD ₅ input)	
BOD ₅	0.100	0.050
TSS.....	.126	.063
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD ₅ input)	
BOD ₅	0.010	0.005
TSS.....	.013	.006
pH.....	Within the range 6.0 to 9.0.	

§ 405.16 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source

within the receiving stations subcategory which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in part 128 of this chapter, except for § 128.133 of this chapter. Subject to the provisions of part 128 of this chapter, process waste water pollutants from a new source subject to the provisions of this subpart may be discharged to publicly owned treatment works.

Subpart B—Fluid Products Subcategory

§ 405.20 Applicability; description of the fluid products subcategory.

The provisions of this subpart are applicable to discharges resulting from the manufacture of market milk (ranging from 3.5 percent fat to fat-free), flavored milk (chocolate and others) and cream (of various fat concentrations, plain and whipped).

§ 405.21 Specialized definitions.

For the purpose of this subpart:
(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in part 401 of this chapter shall apply to this subpart.

(b) The term "BOD₅ input" shall mean the biochemical oxygen demand of the materials entered into process. It can be calculated by multiplying the fats, proteins and carbohydrates by factors of 0.890, 1.031 and 0.691 respectively. Organic acids (e.g., lactic acids) should be included as carbohydrates. Composition of input materials may be based on either direct analyses or generally accepted published values.

§ 405.22 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those speci-

fied in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(a) For fluid products plants receiving more than 250,000 lb/day of milk equivalent (more than 25,900 lb/day of BOD5 input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed
	Metric units (kilograms per 1,000 kg of BOD5 input)	
BOD5	3.375	1.350
TSS	5.506	2.025
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD5 input)	
BOD5	0.388	0.135
TSS	.551	.203
pH	Within the range 6.0 to 9.0.	

(b) For fluid products plants receiving 250,000 lb/day or less of milk equivalent (less than 25,900 lb/day of BOD5 input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed
	Metric units (kilograms per 1,000 kg of BOD5 input)	
BOD5	4.50	2.250
TSS	6.750	3.375
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD5 input)	
BOD5	0.450	0.225
TSS	.675	.338
pH	Within the range 6.0 to 9.0.	

§ 405.23 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

(a) For fluid products plants receiving more than 250,000 lb/day of milk equivalent (more than 25,900 lb/day of BOD5 input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed
	Metric units (kilograms per 1,000 kg of BOD5 input)	
BOD5	0.740	0.370
TSS	.723	.453
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD5 input)	
BOD5	0.074	0.037
TSS	.093	.049
pH	Within the range 6.0 to 9.0.	

(b) For fluid products plants receiving 250,000 lb/day or less of milk equivalent (less than 25,900 lb/day of BOD5 input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed
	Metric units (kilograms per 1,000 kg of BOD5 input)	
BOD5	1.10	0.550
TSS	1.375	.688
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD5 input)	
BOD5	0.110	0.055
TSS	.138	.069
pH	Within the range 6.0 to 9.0.	

§ 405.24 [Reserved]

§ 405.25 Standards of performance for new sources.

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed
	Metric units (kilograms per 1,000 kg of BOD5 input)	
BOD5	0.740	0.370
TSS	.723	.453
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD5 input)	
BOD5	0.074	0.037
TSS	.093	.049
pH	Within the range 6.0 to 9.0.	

§ 405.26 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the fluid products subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in part 128 of this chapter, except for § 128.133 of this chapter. Sub-

ject to the provisions of part 128 of this chapter, process waste water pollutants from a new source subject to the provisions of this subpart may be discharged to publicly owned treatment works.

Subpart C—Cultured Products Subcategory
 § 405.30 Applicability; description of the cultured products subcategory.

The provisions of this subpart are applicable discharges resulting from the manufacture of cultured products, including cultured skim milk (cultured buttermilk), yoghurt, sour cream and dips of various types.

§ 405.31 Specialized definitions.

For the purpose of this subpart:
 (a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in part 401 of this chapter shall apply to this subpart.

(b) The term "BOD5 input" shall mean the biochemical oxygen demand of the materials entered into process. It can be calculated by multiplying the fats, proteins and carbohydrates by factors of 0.890, 1.031 and 0.691 respectively. Organic acids (e.g., lactic acids) should be included as carbohydrates. Composition of input materials may be based on either direct analyses or generally accepted published values.

§ 405.32 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing process products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategory and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fun-

damentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

(a) For cultured products plants receiving more than 60,000 lb/day of milk equivalent (more than 6,200 lb/day of BOD₅ input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD ₅ input)	
BOD ₅	3.375	1.350
TSS.....	5.063	2.025
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD ₅ input)	
BOD ₅	0.338	0.135
TSS.....	.506	.203
pH.....	Within the range 6.0 to 9.0.	

(b) For cultured products plants receiving 60,000 lb/day or less of milk equivalent (less than 6,200 lb/day of BOD₅ input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD ₅ input)	
BOD ₅	4.50	2.250
TSS.....	6.750	3.375
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD ₅ input)	
BOD ₅	0.450	0.225
TSS.....	.675	.338
pH.....	Within the range 6.0 to 9.0.	

§ 405.33 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

(a) For cultured products plants receiving more than 60,000 lb/day of milk equivalent (more than 6,200 lb/day of BOD₅ input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD ₅ input)	
BOD ₅	0.740	0.370
TSS.....	.926	.463
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD ₅ input)	
BOD ₅	0.074	0.037
TSS.....	.093	.046
pH.....	Within the range 6.0 to 9.0.	

(b) For cultured products plants receiving 60,000 lb/day or less of milk equivalent (less than 6,200 lb/day of BOD₅ input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD ₅ input)	
BOD ₅	1.10	0.550
TSS.....	1.375	.688
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD ₅ input)	
BOD ₅	0.110	0.055
TSS.....	.138	.069
pH.....	Within the range 6.0 to 9.0.	

§ 405.34 [Reserved]

§ 405.35 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD ₅ input)	
BOD ₅	0.740	0.370
TSS.....	.926	.463
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD ₅ input)	
BOD ₅	0.074	0.037
TSS.....	.093	.046
pH.....	Within the range 6.0 to 9.0.	

§ 405.36 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the cultured products subcategory, which is a user of a publicly owned treatment works (and which would be a

new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth, in part 128 of this chapter except for § 128.133 of this chapter. Subject to the provisions of part 128 of this chapter process waste water pollutants from a new source subject to the provisions of this subpart may be discharged to publicly owned treatment works.

Subpart D—Butter Subcategory

§ 405.40 Applicability; description of the butter subcategory.

The provisions of this subpart are applicable to discharges resulting from the manufacture of butter, either by churning or continuous process.

§ 405.41 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in part 401 of this chapter shall apply to this subpart.

(b) The term "BOD₅ input" shall mean the biochemical oxygen demand of the materials entered into process. It can be calculated by multiplying the fats, proteins and carbohydrates by factors of 0.890, 1.031 and 0.691 respectively. Organic acids (e.g., lactic acids) should be included as carbohydrates. Composition of input materials may be based on either direct analyses or generally accepted published values.

§ 405.42 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the

discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

(a) For plants processing more than 175,000 lb/day of milk equivalent (more than 18,180 lb/day of BOD5 input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD5 input)	
BOD5	1.375	0.550
TSS	2.063	.825
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD5 input)	
BOD5	0.133	0.055
TSS	.206	.083
pH	Within the range 6.0 to 9.0.	

(b) For plants processing 175,000 lb/day or less of milk equivalent (less than 18,180 lb/day of BOD5 input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD5 input)	
BOD5	1.825	0.913
TSS	2.733	1.369
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD5 input)	
BOD5	0.153	0.091
TSS	.274	.137
pH	Within the range 6.0 to 9.0.	

§ 405.43 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

(a) For plants processing more than 175,000 lb/day of milk equivalent (more than 18,180 lb/day of BOD5 input.)

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD5 input)	
BOD5	0.160	0.080
TSS	.20	.10
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD5 input)	
BOD5	0.016	0.008
TSS	.020	.010
pH	Within the range 6.0 to 9.0.	

(b) For plants processing 175,000 lb/day or less of milk equivalent (less than 18,180 lb/day of BOD5 input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD5 input)	
BOD5	0.250	0.125
TSS	.313	.156
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD5 input)	
BOD5	0.025	0.013
TSS	.031	.016
pH	Within the range 6.0 to 9.0.	

§ 405.44 [Reserved]

§ 405.45 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD5 input)	
BOD5	0.160	0.080
TSS	.20	.10
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD5 input)	
BOD5	0.016	0.008
TSS	.020	.010
pH	Within the range 6.0 to 9.0.	

§ 405.46 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the butter subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters) shall be the standard set forth in Part 128 of this chapter except for § 128.133 of this chapter. Sub-

ject to the provisions of Part 128 of this chapter, process waste water pollutants from a new source subject to the provisions of this subpart may be discharged to publicly owned treatment works.

Subpart E—Cottage Cheese and Cultured Cream Cheese Subcategory

§ 405.50 Applicability; description of the cottage cheese and cultured cream cheese subcategory.

The provisions of this subpart are applicable to discharges resulting from the manufacture of cottage cheese and cultured cream cheese.

§ 405.51 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "BOD5 input" shall mean the biochemical oxygen demand of the materials entered into process. It can be calculated by multiplying the fats, proteins and carbohydrates by factors of 0.890, 1.031 and 0.691 respectively. Organic acids (e.g., lactic acids) should be included as carbohydrates. Composition of input materials may be based on either direct analyses or generally accepted published values.

§ 405.52 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such

fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

(a) For plants processing more than 25,000 lb/day of milk equivalent (more than 2,600 lb/day of BOD₅ input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD ₅ input)	
BOD ₅	6.70	2.680
TSS.....	10.050	4.020
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD ₅ input)	
BOD ₅	0.670	0.268
TSS.....	1.005	4.02
pH.....	Within the range 6.0 to 9.0.	

(b) For plants processing 25,000 lb/day or less of milk equivalent (less than 2,600 lb/day of BOD₅ input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD ₅ input)	
BOD ₅	8.928	4.463
TSS.....	13.388	6.094
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD ₅ input)	
BOD ₅	0.893	0.446
TSS.....	1.339	6.09
pH.....	Within the range 6.0 to 9.0.	

§ 405.53 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

(a) For plants processing more than 25,000 lb/day of milk equivalent (more than 2,600 lb/day of BOD₅ input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD ₅ input)	
BOD ₅	1.480	0.740
TSS.....	1.850	.925
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD ₅ input)	
BOD ₅	0.148	0.074
TSS.....	.185	.093
pH.....	Within the range 6.0 to 9.0.	

(b) For plants processing 25,000 lb/day or less of milk equivalent (less than 2,600 lb/day of BOD₅ input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD ₅ input)	
BOD ₅	2.226	1.113
TSS.....	2.782	1.391
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD ₅ input)	
BOD ₅	0.223	0.111
TSS.....	.278	.139
pH.....	Within the range 6.0 to 9.0.	

§ 405.54 [Reserved]

§ 405.55 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD ₅ input)	
BOD ₅	1.480	0.740
TSS.....	1.850	.925
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD ₅ input)	
BOD ₅	0.148	0.074
TSS.....	.185	.093
pH.....	Within the range 6.0 to 9.0.	

§ 405.56 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the cottage cheese and cultured cream cheese subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable

waters), shall be the standard set forth in Part 128 of this chapter, except for § 128.133 of this chapter. Subject to the provisions of Part 128 of this chapter, process waste water pollutants from a new source subject to the provisions of this subpart may be discharged to publicly owned treatment works.

Subpart F—Natural and Processed Cheese Subcategory

§ 405.60 Applicability; description of the natural and processed cheese subcategory.

The provisions of this subpart are applicable to discharges resulting from the manufacture of natural cheese (hard curd) and processed cheese.

§ 405.61 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter, shall apply to this subpart.

(b) The term "BOD₅ input" shall mean the biochemical oxygen demand of the materials entered into process. It can be calculated by multiplying the fats, proteins and carbohydrates by factors of 0.890, 1.031 and 0.691 respectively. Organic acids (e.g., lactic acids) should be included as carbohydrates. Composition of input materials may be based on either direct analyses or generally accepted published values.

§ 405.62 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors

are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

(a) For plants processing more than 100,000 lb/day of milk equivalent (more than 10,390 lb/day of BOD5 input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD5 input)	
BOD5	0.715	0.290
TSS	1.058	.435
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD5 input)	
BOD5	0.073	0.029
TSS	.109	.044
pH	Within the range 6.0 to 9.0.	

(b) For plants processing 100,000 lb/day or less of milk equivalent (less than 10,390 lb/day of BOD5 input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD5 input)	
BOD5	0.976	0.468
TSS	1.462	.731
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD5 input)	
BOD5	0.098	0.049
TSS	.146	.073
pH	Within the range 6.0 to 9.0.	

§ 405.63 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

(a) For plants processing more than 100,000 lb/day of milk equivalent (more than 10,390 lb/day of BOD5 input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD5 input)	
BOD5	0.160	0.069
TSS	.29	.10
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD5 input)	
BOD5	0.016	0.008
TSS	.029	.010
pH	Within the range 6.0 to 9.0.	

(b) For plants processing 100,000 lb/day or less of milk equivalent (less than 10,390 lb/day of BOD5 input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD5 input)	
BOD5	0.250	0.125
TSS	.312	.156
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD5 input)	
BOD5	0.025	0.013
TSS	.031	.016
pH	Within the range 6.0 to 9.0.	

§ 405.64 [Reserved]

§ 405.65 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD5 input)	
BOD5	0.160	0.069
TSS	.29	.10
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD5 input)	
BOD5	0.016	0.008
TSS	.029	.010
pH	Within the range 6.0 to 9.0.	

§ 405.66 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the natural and processed cheese subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this chapter except for § 128.133 of this chapter subject to the provisions of Part

128 of this chapter, process waste water pollutants from a new source subject to the provisions of this subpart may be discharged to publicly owned treatment works.

Subpart G—Fluid Mix for Ice Cream and Other Frozen Desserts Subcategory

§ 405.70 Applicability; description of the fluid mix for ice cream and other frozen desserts subcategory.

The provisions of this subpart are applicable to discharges resulting from the manufacture of fluid mixes for ice cream and other frozen desserts for later freezing in other plants; it does not include freezing of the products as one of the affected operations.

§ 405.71 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "BOD5 input" shall mean the biochemical oxygen demand of the materials entered into process. It can be calculated by multiplying the fats, proteins and carbohydrates by factors of 0.890, 1.031 and 0.691 respectively. Organic acids (e.g., lactic acids) should be included as carbohydrates. Composition of input materials may be based on either direct analyses or generally accepted published values.

§ 405.72 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit

either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

(a) For plants with a dairy products input of more than 85,000 lb/day of milk equivalent (more than 8,830 lb/day of BOD₅ input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD ₅ input)	
BOD ₅	2.20	0.580
TSS.....	2.640	1.320
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD ₅ input)	
BOD ₅	0.220	0.058
TSS.....	.264	.132
pH.....	Within the range 6.0 to 9.0.	

(b) For plants with a dairy products input of 85,000 lb/day or less of milk equivalent (less than 8,830 lb/day of BOD₅ input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD ₅ input)	
BOD ₅	2.926	1.463
TSS.....	4.358	2.194
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD ₅ input)	
BOD ₅	0.293	0.146
TSS.....	.439	.219
pH.....	Within the range 6.0 to 9.0.	

§ 405.73 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

(a) For plants with a dairy products input of more than 85,000 lb/day of milk equivalent (more than 8,830 lb/day of BOD₅ input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD ₅ input)	
BOD ₅	0.450	0.210
TSS.....	.60	.30
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD ₅ input)	
BOD ₅	0.048	0.024
TSS.....	.060	.030
pH.....	Within the range 6.0 to 9.0.	

(b) For plants with a dairy products input of 85,000 lb/day or less of milk equivalent (less than 8,830 lb/day of BOD₅ input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD ₅ input)	
BOD ₅	0.726	0.363
TSS.....	.908	.454
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD ₅ input)	
BOD ₅	0.073	0.036
TSS.....	.091	.045
pH.....	Within the range 6.0 to 9.0.	

§ 405.74 [Reserved]

§ 405.75 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD ₅ input)	
BOD ₅	0.450	0.210
TSS.....	.60	.30
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD ₅ input)	
BOD ₅	0.048	0.024
TSS.....	.060	.030
pH.....	Within the range 6.0 to 9.0.	

§ 405.76 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the fluid mix for ice cream and other frozen desserts subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this chapter, except

for § 128.133 of this chapter. Subject to the provisions of Part 128 of this chapter, process waste water pollutants from a new source subject to the provisions of this subpart may be discharged to publicly owned treatment works.

Subpart H—Ice Cream, Frozen Desserts, Novelties and Other Dairy Desserts Subcategory

§ 405.80 Applicability; description of the ice cream, frozen desserts, novelties and other dairy desserts subcategory.

The provisions of this subpart are applicable to discharges resulting from the manufacture of ice cream, ice milk, sherbert, water ices, stick confections, frozen novelties products, frozen desserts, melorine, pudding and other dairy product base desserts. If fluid mixes prepared at another plant are employed, the appropriate values from Subpart G should be deducted from the limitations.

§ 405.81 Specialized definitions.

For the purpose of this subpart: (a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter, shall apply to this subpart.

(b) The term "BOD₅ input" shall mean the biochemical oxygen demand of the materials entered into process. It can be calculated by multiplying the fats, proteins and carbohydrates by factors of 0.890, 1.031 and 0.691 respectively. Organic acids (e.g., lactic acids) should be included as carbohydrates. Composition of input materials may be based on either direct analyses or generally accepted published values.

§ 405.82 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will

make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

(a) For plants with a dairy products input of more than 85,000 lb/day of milk equivalent (more than 8,830 lb/day of BOD5 input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD5 input)	
BOD5	4.60	1.840
TSS	8.90	2.760
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD5 input)	
BOD5	0.460	0.184
TSS	6.90	2.76
pH	Within the range 6.0 to 9.0.	

(b) For plants with a dairy products input of 85,000 lb/day or less of milk equivalent (less than 8,830 lb/day of BOD5 input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD5 input)	
BOD5	6.126	3.063
TSS	9.163	4.594
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD5 input)	
BOD5	0.613	0.306
TSS	9.19	4.59
pH	Within the range 6.0 to 9.0.	

§ 405.83 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of

this subpart after application of the best available technology economically achievable:

(a) For plants with a dairy products input of more than 85,000 lb/day of milk equivalent (more than 8,830 lb/day of BOD5 input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD5 input)	
BOD5	0.049	0.070
TSS	1.175	.653
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD5 input)	
BOD5	0.094	0.07
TSS	.118	.653
pH	Within the range 6.0 to 9.0.	

(b) For plants with a dairy products input of 85,000 lb/day or less of milk equivalent (less than 8,830 lb/day of BOD5 input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD5 input)	
BOD5	1.49	0.70
TSS	1.739	.675
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD5 input)	
BOD5	0.149	0.070
TSS	1.739	.675
pH	Within the range 6.0 to 9.0.	

§ 405.84 [Reserved]

§ 405.85 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD5 input)	
BOD5	0.049	0.070
TSS	1.175	.653
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD5 input)	
BOD5	0.094	0.07
TSS	.118	.653
pH	Within the range 6.0 to 9.0.	

§ 405.86 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source

within the manufacture of ice cream, frozen desserts, novelties and other dairy desserts subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in part 128 of this chapter, except for § 128.133 of this chapter. Subject to the provisions of part 128 of this chapter, process waste water pollutants from a new source subject to the provisions of this subpart may be discharged to publicly owned treatment works.

Subpart I—Condensed Milk Subcategory
§ 405.90 Applicability; description of the condensed milk subcategory.

The provisions of this subpart are applicable to discharges resulting from the manufacture of condensed whole milk, condensed skim milk, sweetened condensed milk and condensed buttermilk.

§ 405.91 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in part 401 of this chapter shall apply to this subpart.

(b) The term "BOD5 input" shall mean the biochemical oxygen demand of the materials entered into process. It can be calculated by multiplying the fats, proteins and carbohydrates by factors of 0.890, 1.031 and 0.691 respectively. Organic acids (e.g., lactic acids) should be included as carbohydrates. Composition of input materials may be based on either direct analyses or generally accepted published values.

§ 405.92 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the De-

velopment Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

(a) For plants condensing more than 100,000 lb/day of milk equivalent (more than 10,390 lb/day of BOD₅ input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD ₅ input)	
BOD ₅	3.450	1.380
TSS.....	5.175	2.070
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD ₅ input)	
BOD ₅	0.345	0.138
TSS.....	.518	.207
pH.....	Within the range 6.0 to 9.0.	

(b) For plants condensing 100,000 lb/day or less of milk equivalent (less than 10,390 lb/day of BOD₅ input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD ₅ input)	
BOD ₅	4.60	2.30
TSS.....	6.90	3.450
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD ₅ input)	
BOD ₅	0.460	0.184
TSS.....	.690	.276
pH.....	Within the range 6.0 to 9.0.	

(c) For plants in the size range covered by paragraph (b) once-through barometric condenser water may be discharged untreated if the composite net entrainment is below 15 mg/l of BOD₅ for any one day and below 10 mg/l of BOD₅ as the average for thirty consecutive days.

§ 405.93 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pol-

lutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

(a) For plants condensing more than 100,000 lb/day of milk equivalent (more than 10,390 lb/day of BOD₅ input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD ₅ input)	
BOD ₅	0.760	0.380
TSS.....	.950	.475
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD ₅ input)	
BOD ₅	0.076	0.038
TSS.....	.095	.048
pH.....	Within the range 6.0 to 9.0.	

(b) For plants condensing 100,000 lb/day or less of milk equivalent (less than 10,390 lb/day of BOD₅ input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD ₅ input)	
BOD ₅	1.150	0.575
TSS.....	1.438	.719
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD ₅ input)	
BOD ₅	0.115	0.058
TSS.....	.144	.072
pH.....	Within the range 6.0 to 9.0.	

§ 405.94 [Reserved]

§ 405.95 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

(a) For plants condensing more than 100,000 lb/day of milk equivalent (more than 10,390 lb/day of BOD₅ input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD ₅ input)	
BOD ₅	0.760	0.380
TSS.....	.950	.475
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD ₅ input)	
BOD ₅	0.076	0.038
TSS.....	.095	.048
pH.....	Within the range 6.0 to 9.0.	

§ 405.96 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the condensed milk subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this chapter, except for § 128.133 of this chapter. Subject to the provisions of Part 128 of this chapter, process waste water pollutants from a new source subject to the provisions of this subpart may be discharged to publicly owned treatment works.

Subpart J—Dry Milk Subcategory

§ 405.100 Applicability; description of the dry milk subcategory.

The provisions of this subpart are applicable to discharges resulting from the manufacture of dry whole milk, dry skim milk and dry buttermilk.

§ 405.101 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "BOD₅ input" shall mean the biochemical oxygen demand of the materials entered into process. It can be calculated by multiplying the fats, proteins and carbohydrates by factors of 0.890, 1.031 and 0.691 respectively. Organic acids (e.g., lactic acids) should be included as carbohydrates. Composition of input materials may be based on either direct analysis or generally accepted published values.

§ 405.102 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategory and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not

fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

(a) For milk drying plants with an input equivalent to more than 145,000 lb/day of milk equivalent (more than 15,070 lb/day of BOD5 input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD5 input)	
BOD5.....	1.625	0.650
TSS.....	2.433	.975
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD5 input)	
BOD5.....	0.163	0.065
TSS.....	.244	.093
pH.....	Within the range 6.0 to 9.0.	

(b) For milk drying plants with an input equivalent to 145,000 lb/day or less of milk equivalent (less than 15,070 lb/day of BOD5 input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD5 input)	
BOD5.....	2.176	1.633
TSS.....	3.276	1.633
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD5 input)	
BOD5.....	0.218	0.109
TSS.....	.328	.161
pH.....	Within the range 6.0 to 9.0.	

§ 405.103 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this

subpart after application of the best available technology economically achievable:

(a) For milk drying plants with an input equivalent to more than 145,000 lb/day of milk equivalent (more than 15,070 lb/day of BOD5 input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD5 input)	
BOD5.....	0.390	0.150
TSS.....	.450	.225
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD5 input)	
BOD5.....	0.053	0.018
TSS.....	.045	.023
pH.....	Within the range 6.0 to 9.0.	

(b) For milk drying plants with an input equivalent to 145,000 lb/day or less of milk equivalent (less than 15,070 lb/day of BOD5 input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD5 input)	
BOD5.....	0.250	0.275
TSS.....	.633	.341
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD5 input)	
BOD5.....	0.025	0.023
TSS.....	.053	.034
pH.....	Within the range 6.0 to 9.0.	

§ 405.104 [Reserved]

§ 405.105 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD5 input)	
BOD5.....	0.053	0.150
TSS.....	.450	.225
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD5 input)	
BOD5.....	0.053	0.018
TSS.....	.045	.023
pH.....	Within the range 6.0 to 9.0.	

§ 405.106 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within

the dry milk subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this chapter, except for § 128.133 of this chapter. Subject to the provisions of Part 128 of this chapter, process waste water pollutants from a new source subject to the provisions of this subpart may be discharged to publicly owned treatment works.

Subpart K—Condensed Whey Subcategory
 § 405.110 Applicability; description of the condensed whey subcategory.

The provisions of this subpart are applicable to discharges resulting from the manufacture of condensed sweet whey and condensed acid whey.

§ 405.111 Specialized definitions.

For the purpose of this subpart:
 (a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "BOD5 input" shall mean the biochemical oxygen demand of the materials entered into process. It can be calculated by multiplying the fats, proteins and carbohydrates by factors of 0.890, 1.031 and 0.691 respectively. Organic acids (e.g., lactic acids) should be included as carbohydrates. Composition of input materials may be based on either direct analyses or generally accepted published values.

§ 405.112 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If

such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

(a) For whey condensing plants with over 300,000 lb/day of fluid raw whey input (over 20,700 lb/day of solids or 14,160 lb/day of BOD₅ input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD ₅ input)	
BOD ₅	1.00	0.400
TSS.....	1.50	.600
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD ₅ input)	
BOD ₅	0.100	0.040
TSS.....	.150	.060
pH.....	Within the range 6.0 to 9.0.	

(b) For whey condensing plants with 300,000 lb/day or less of raw fluid whey input (less than 20,700 lb/day of solids or 14,160 lb/day of BOD₅ input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD ₅ input)	
BOD ₅	1.30	0.650
TSS.....	1.950	.975
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD ₅ input)	
BOD ₅	0.130	0.065
TSS.....	.195	.098
pH.....	Within the range 6.0 to 9.0.	

(c) For plants in the size range covered in paragraph (b) once-through barometric condenser water may be discharged untreated if the composite net entrainment is below 15 mg/1 of BOD₅

for any one day and below 10 mg/1 of BOD₅ as the average for thirty consecutive days.

§ 405.113 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

(a) For whey condensing plants with more than 300,000 lb/day of raw fluid whey input (more than 20,700 lb/day of solids or 14,160 lb/day of BOD₅ input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD ₅ input)	
BOD ₅	0.220	0.110
TSS.....	.276	.138
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD ₅ input)	
BOD ₅	0.022	0.011
TSS.....	.028	.014
pH.....	Within the range 6.0 to 9.0.	

(b) For whey condensing plants with 300,000 lb/day or less of raw fluid whey input (less than 20,700 lb/day of solids or 14,160 lb/day of BOD₅ input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD ₅ input)	
BOD ₅	0.320	0.163
TSS.....	.403	.204
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD ₅ input)	
BOD ₅	0.033	0.016
TSS.....	.041	.020
pH.....	Within the range 6.0 to 9.0.	

§ 405.114 [Reserved]

§ 405.115 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD ₅ input)	
BOD ₅	0.220	0.110
TSS.....	.276	.138
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD ₅ input)	
BOD ₅	0.022	0.011
TSS.....	.028	.014
pH.....	Within the range 6.0 to 9.0.	

§ 405.116 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the condensed whey subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this chapter, except for § 128.133 of this chapter. Subject to the provisions of Part 128 of this chapter, process waste water pollutants from a new source subject to the provisions of this subpart may be discharged to publicly owned treatment works.

Subpart L—Dry Whey Subcategory

§ 405.120 Applicability; description of the dry whey subcategory.

The provisions of this subpart are applicable to discharges resulting from the manufacture of sweet or acid dry whey.

§ 405.121 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "BOD₅ input" shall mean the biochemical oxygen demand of the materials entered into process. It can be calculated by multiplying the fats, proteins and carbohydrates by factors of 0.890, 1.031 and 0.691 respectively. Organic acids (e.g., lactic acids) should be included as carbohydrates. Composition of input materials may be based on either direct analyses or generally accepted published values.

§ 405.122 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw

materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry sub-categorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

(a) For whey drying plants with an input equivalent to more than 57,000 lb/day of 40 percent solids whey (22,800 lb/day of solids or 15,620 lb/day of BOD5 input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD5 input)	
BOD5	1.00	0.400
TSS	1.50	.600
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD5 input)	
BOD5	0.100	0.040
TSS	.150	.060
pH	Within the range 6.0 to 9.0.	

(b) For whey drying plants with an input equivalent to 57,000 lb/day or less of 40 percent solids whey (under 22,800 lb/day solids or 15,620 lb/day of BOD5 input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD5 input)	
BOD5	1.30	0.600
TSS	1.95	.750
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD5 input)	
BOD5	0.130	0.060
TSS	.195	.075
pH	Within the range 6.0 to 9.0.	

§ 405.123 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

(a) For whey drying plants with an input equivalent to more than 57,000 lb/day of 40 percent solids whey (22,800 lb/day of solids or 15,620 lb/day of BOD5 input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD5 input)	
BOD5	0.220	0.110
TSS	.275	.138
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD5 input)	
BOD5	0.022	0.011
TSS	.028	.014
pH	Within the range 6.0 to 9.0.	

(b) For whey drying plants with an input equivalent to 57,000 lb/day or less of 40 percent solids whey (under 22,800 lb/day solids or 15,620 lb/day of BOD5 input).

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD5 input)	
BOD5	0.325	0.163
TSS	.405	.204
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD5 input)	
BOD5	0.033	0.016
TSS	.041	.020
pH	Within the range 6.0 to 9.0.	

§ 405.124 [Reserved]

§ 405.125 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of BOD5 input)	
BOD5	0.220	0.110
TSS	.275	.138
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 100 lb of BOD5 input)	
BOD5	0.022	0.011
TSS	.028	.014
pH	Within the range 6.0 to 9.0.	

§ 405.126 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the dry whey subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128, of this chapter, except for § 128.133 of this chapter. Subject to the provisions of Part 128 of this chapter, process waste water pollutants from a new source subject to the provisions.

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