Title 40—Protection of the Environment CHAPTER I—ENVIRONMENTAL

# SUBCHAPTER N-EFFLUENT GUIDELINES

PART 409—SUGAR PROCESSING POINT SOURCE CATEGORY

Liquid and Crystalline Cane Sugar Refining Subcategory

On December 7, 1973, notice was published in the FEDERAL REGISTER (38 FR 33846) 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 crystalline cane sugar and liquid cane sugar refining subcategories of the sugar processing 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 sugar processing category of point sources, by amending 40 CFR Chapter I, Subchapter N, Part 409 to add new subparts B and C. 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 RECISTER, 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 crystalline cane sugar refining subcategory and the liquid cane sugar refining subcategory. 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 Cane Sugar Refining Segment of the Sugar Processing Point Source Category" (December 1973) and (2) the document entitled "Economic Analysis of Proposed Effluent Guidelines, Cane Sugar Refining Industry" (October 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 thereto follows.

The regulation as promulgated contains minor but significant departures from the proposed regulation. The following discussion outlines the reasons why these changes were made and why other suggestions were not adopted.

(a) Summary of comments. The following responded to the request for written comments contained in the preamble to the proposed regulation: U.S. Department of Commerce, U.S. Water Resources Council, California and Hawaiian Sugar Company, United States Cane Sugar Refiners' Association, Tate and Lyle Technical Services, Ltd., Amstar Sugar Corporation, Imperial Sugar Company, State of Hawaii, and the Effluent Standards and Water Quality Information Advisory 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) Several commenters raised no objection to the guidelines as proposed.

(2) One commenter questioned the subcategorization into liquid and crystalline refining, and the more stringent standards laid down for crystalline cane sugar refineries.

The guidelines are actually more stringent (lower numbers, higher treatment efficiency) for liquid refining. These are two distinct unit operations with correspondingly different raw waste loads and water usage. Data pertaining to water usage and raw waste loadings further substantiate the subcategorization.

(3) Several commenters stated that the practicability of biological treatment of refinery wastes has not yet been demonstrated.

It is true that no member of the cane sugar refining subcategories is presently employing the technology described as BPCTCA. However, the technology itself is widely available and practiced in other industries with similar raw waste characteristics—for example, the grain milling and the citrus and potato industries. There are no characteristics of the refinery waste waters that would render them untreatable by the biological treatment system described.

(4) One commenter questioned the achievability and availability of biological treatment of sugar refining process water in conjunction with blowdown from cooling water recycle systems followed by sand filtration (BATEA), stating that it has not been physically demonstrated.

This is proven technology, currently being practiced within the grain milling, the oil refining, and the soaps and detergents industries. Although the economic situation of the industry precludes the establishment of this technology as BFCTCA, it has been so thoroughly demonstrated that there is little doubt that it can be utilized by 1983 within this industry segment. The technology upon which BATEA is established is proven and has been studied in terms of an economic impact analysis and found to be acceptable.

(5) Several commenters expressed the opinion that the effluent guidelincs should be established as net rather than gross limitations.

It was the intention of the proposed effluent limitations guidelines (BPCTCA) that the barometric condenser cooling water stream be handled as net (the addition of pollutants). This is because for BPCTCA, control of entrained BOD5 in condenser water rather than treatment is specified. The regulations have been modified to better reflect their intentions, including a separate set of regulations for those refineries which discharge barometric condenser cooling water only. For BPCTCA for both subcategories, the basis of the effluent limitations guidelines is as follows. The BOD5 limitation is determined by the addition of the net BOD5 attributed to the barometric condenser cooling water together with that amount of BOD5 attributed to the treated process water. The TSS limitation is that amount of TSS attributed to the treated process water. Where the barometric condenser cooling water and process water streams are mixed and impossible to measure separately prior to discharge, the values should be considered net.

The pollutant levels established for: the process water stream for BPCTCA, for BATEA, and for new source performance standards for both the crystalline and liquid subcategories reflect values which should not be exceeded because treatment of the entire waste stream is specified. Treatment produces a relatively constant effluent regardless of influent concentration.

(6) The comment was made that the ratio of maximum daily to average monthly limits is far too liberal.

Further analysis of activated sludge treatment systems handling similar waste streams to cane sugar refining process waters was accomplished. Based on engineering judgment and experience with similar waste treatment systems in other industrial categories the following ratios of daily maximum to monthly average limitations are established. Barometric condenser cooling water will be three (3) times the monthly average for BOD5 for both subcategories. Process water will be two (2) times the monthly average for BOD5 and three (3) times the monthly average for TSS for both subcategories.

(7) It was recommended that effluent limitations be established for settleable

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Settleable solids, unlike TSS, does not measure the treatment efficiency of a biological treatment system. There should be no measurable settleable solids in the overflow from a secondary clarifier used in a biological treatment system. It would be meaningless to establish a standard for a parameter which does not measure the degree of treatment achieved by the treatment system.

(8) It was recommended that the BOD5 monthly limitation (BPCTCA) be based on an effluent concentration ranging from 60-113 mg/l from the biological treatment system for both the crystalline and liquid cane sugar refining subcategories.

The effluent levels from treatment of process water by an activated sludge or system other biological treatment (BPCTCA) have been modified so that crystalline cane sugar refineries are required to meet effluent levels of 60 mg/l for both BOD5 and TSS and liquid cane sugar refineries are required to meet effluent levels of 100 mg/l for both BOD5 and TSS. These levels are approximately double those in the proposed regulation. This modification of the guidelines is required because no one currently operates a biological system to treat refinery wastes. EPA continues to believe that a properly designed and operated system of the type described would meet the limitations set forth in the proposed guidelines. The revision of the limitations in the final guidelines is not intended to allow any lesser degree of treatment. The same system should be used, and the system should be designed so as to achieve the proposed guidelines. The revision is intended only to take into account operational problems which might be encountered in adapting the specified technology to this industry.

(9) One commenter questioned the use of cooling towers as a part of BATEA stating that a barometric condenser discharge stream of 24,000,000 gallons per day at 10 mg/1 of BOD5 is better than 480,000 gallons per day at 30 mg/1 (or that flow rate and corresponding BOD5 concentration resulting from the biological treatment of the cooling tower blowdown stream).

The use of cooling towers and subsequent biological treatment of the blowdown stream results in a reduction by 94% of the BOD5 reaching the receiving water body. EPA policy is that dilution is not a suitable form of treatment. By concentrating this waste stream in a relatively small blowdown stream, it is more easily and cheaply treatable biologically. This is "practicable" technology being utilized in the oil refining, grain milling, and soaps and detergents industries. Some segments of the cane sugar refining industry practice the recycle of barometric condenser cooling water and discharge of the cooling tower blowdown to municipal treatment systems or total impoundage lagoons.

(10) One commenter questioned the effluent levels proposed for BATEA stating that the limitations were not consistent with EPA's definition of "secondary treatment".

The guidelines for BATEA need not be consistent with the "secondary treat-ment" definition under section 304(d) of the Act. Instead, they must meet the requirements set forth in section 304(b) of the Act.

(11) One commenter felt that while sand filtration is mentioned as the BATEA, this should not preclude the use of other polishing methods to meet the standards. The Agency has not required any treatment method to be employed by industry to achieve the muldelines. Many other polishing methods exist and the guidelines may be achieved by means other than those specified in the development document.

(12) It was recommended that BOD5 under the BATEA be limited to 0.16 lb/ton, or double the proposed limitation, based on a lesser treatment efficiency.

The expected degree of treatment based on the BATEA has been reevaluated and modified. Based on improved operation of the properly designed biological treatment system, effluent BOD5 levels of 40 mg/1 for the model crystalline and 75 mg/1 for the model liquid cane sugar refinery are determined to be realistic. No credit for BOD5 removal with the solids removed in the sand polishing operation is assumed. This is because of the uncertainty at present of the ratio of soluble to insoluble BOD5 in the effluent from the biological treatment system.

(13) The comment was made that the raw waste load baseline value with regard to filter cake slurry assumed the universal installation of filter aid recycle systems.

Upon re-analysis of the filter cake slurry stream, it was found that a calculational error appeared in the development document. Because the proposed guidelines are based on the complete retention with no allowable discharge of this stream, no change in the allowable effluent discharge results.

(14) Various commenters stated that the assumed barometric flows are either too low or too high.

The barometric condenser water flows designed for in the development document have the following bases: (1) Average flows were based on an average of all reliable flow information available, and (2) Model flows were based on the average flows of those refineries deemed to be exemplary in terms of BOD5 entrainment control.

In any event, the amount of BOD entrained is not a function of flow rate, but of sucrose carry-over. The model flows are technically sound for the basis of guidelines establishment and the development of cost data.

(15) One commenter objected to the statement that the investment costs associated with hook-up to a municipal treatment system are zero.

This assumption was made and applied only to those facilities which currently

tal investment cost is zero, for these refineries.

(16) The comment was made that the capital and operating costs of treatment appear to be understated.

The Agency has reexamined the cost data and finds that these data are accurate and substantiate the reasonableness of the proposed regulations.

(17) The comment was made that the energy required to treat wastes and operate cooling towers will add a burden to our present crisis.

It has been estimated that the additional energy to achieve the BPCTCA limitations ranges from between 0.6 and 0.84 percent of the current industry energy usage. To achieve the BATEA limitations, the estimated additional energy required ranges from between 1.6 and 6.1 percent of the current industry energy usage. These energy requirements were reviewed by the Agency and judged to be not excessive.

(18) The comment was made that cooling towers sometimes cause fogging and noice problems.

For some locations, some of the time, these problems may be encountered. However, through proper design these effects can be minimized.

(19) The State of Hawali stated that they are opposed to the installation of a cooling tower at a refinery in Alea. Hawall. The State would want to review the alternative of reclaiming the refinery's barometric condenser cooling water stream through the irrigation of public parks and recreational facilities in the area.

The EPA's guidelines limit only the quantity and quality of the pollutants which may be discharged. Dischargers may employ any technology, including land disposal or other alternatives, which will result in compliance with such limitations.

(20) The comment was made that settled activated bacterial sludge is very dilute, and its disposal is not simply a matter of landfill.

There are many ways in which settled activated bacterial sludge may be handled-sludge thickening, rotary vacuum filtration, centrifugation, sludge drying with the resulting solids either landfilled or used as a soil supplement.

(21) The State of Hawaii recommended that the implementation of the proposed elluent limitations guidelines be postponed until the energy requirements are clearly known and fuel allocations for these purposes assured.

These guidelines are not self-executing, but must be implemented through NPDES permits. Under the Act, BPCTCA must be achieved by July 1, 1977. However, in permit issuance, such factors as fuel allocations and availability may be taken into account in specifying specific compliance dates prior to that time. As previously indicated, the energy requirements associated with the required tech-

nology are not excessive. (22) One commenter objected to the assumptions in the economic impact have hook-up. Therefore, the incremen- analysis regarding the cost of capital, land salvage values, and plant salvage values.

The Agency has reviewed these assumptions used in the economic impact analysis and found them to be substantially correct. The cost of capital used in the analysis is based upon the rate of return experienced in this particular industry, rather than the rate of return for the entire food processing industry. Any difference in land and plant salvage values were determined to be insignificant for the economic impact analysis.

(b) Revision of the proposed regulation prior to promulgation. As a result of public comments and continuing review and evaluation of the proposed regulation by the EPA, the following changes have been made in the regulation.

(1) The effluent levels from treatment of process waste water by an activated sludge or other biological treatment system (BPCTCA) have been modified so that crystalline cane sugar refineries are required to meet levels of 60 mg/l for both BOD5 and TSS and liquid cane sugar refineries are required to meet effluent levels of 100 mg/1 for both BOD5 and TSS.

These levels are approximately double those in the proposed regulation. The modification of the guidelines is required because no one currently operates a biological system to treat refinery wastes. EPA continues to believe that a properly designed and operated system of the type described would meet the limitations set forth in the proposed guidelines. The revision of the limitations in the final guidelines is not intended to allow any lesser degree of treatment. The same system should be used, and the system should be designed so as to achieve the proposed guidelines. The revision is intended only to take into account operational problems which might be encountered in adapting the specified technology to this industry.

(2) The effluent levels for BOD5 resulting from the application of BATEA have been modified.

Based on improved operation of the properly designed biological treatment system, effluent BOD5 levels of 40 mg/1 for crystalline and 75 mg/l for liquid cane sugar refineries are determined to be more realistic.

No credit for BOD5 removal with the solids removed in the sand polishing operation is assumed. This is because of the uncertainty at present of the ratio of soluble to insoluble BOD5 in the effluent from the biological treatment system.

(3) Based on an analysis of biological treatment systems operating on wastes similar in nature to cane sugar refining wastes and on engineering judgment, the following ratios of daily maxium to monthly average limitations are established.

Barometric condenser cooling water will be three (3) times the monthly average for BOD5 for both subcategories.

Process water will be two (2) times the monthly average for BOD5 and three (3) times the monthly average for TSS for both subcategories.

(4) Section 304(b) (1) (B)z 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 technology, it was concluded that some provision was needed to authorize flexibility in the strict application of the limitations contained in the regulation where required by special circumstances applicable to individual dischargers.

Accordingly, a provision allowing flexibility in the 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.

(c) Economic impact. The above listed changes will not significantly affect the conclusions of the economic study prepared for the proposed regulations. In addition, it has been learned that one cane sugar refinery considered to be impacted, under the assumption that a complete treatment system for treating its process waste water stream was necessary, is no longer impacted. The projected availability of a municipal treatment system at a reasonable initial and operational cost precludes the previously expected economic impact.

(d) Cost-benefit analysis. The detri-mental effects of the constituents of waste waters now discharged by point sources within the cane sugar refining segment of the sugar processing point source category are discussed in Section VI of the report entitled "Development for Effluent Limitations Document Guidelines for the Cane Sugar Refining Segment of the Sugar Processing Point Source Category" (March 1974). 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, Cane Sugar Refining Industry" (October, 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 cane sugar refining industry.

The Agency believes that the benefit of thus reducing the pollutants dis-charged justifies the associated costs which, though substantial in absoluto 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<sup>\*</sup> of the discharge of pollutants. In conformance with the requirements of Section 304(c) of the Act a manual ontitled. "Development Document for Effluent Limitations Guidelines and Now Source Performance Standards for the Cane Sugar Refining Segment of the Sugar Processing Point Source Category," has been published and is available for purchase from the Government Printing Office, Washington, D.C., 20401 for a nominal fee.

FINAL RULEMAKING

In consideration of the foregoing, 40 CFR Chapter 1. Subchapter N. Part 409 is amended by adding Subparts B and C to read as set forth below. This final regulation is promulgated as set forth below and shall be effective May 20, 1974.

Dated: March 12, 1974.

RUSSELL E. TRAIN, Administrator.

Subpart B—Crystalline Cane Sugar Refining Subcategory

- Sec 409.20 Applicability; description of the crystallino cano sugar refining subcategory. Specialized definitions.
- 409.21
- 409.22 Effuent limitations guidelines reprosenting the degree of effluent reduction attainable by the applica-tion of the best practicable control technology currently available. 409.23 Effluent limitations guidelines repro
  - senting the degree of effluent re-duction attainable by the applica-tion of the best available technology economically achievable.
- [Reserved] 409.24 403.25 Standards of performance for new sources.
- 409.26 Pretreatment standards for new sources.

Subpart C-Liquid Cano Sugar Rofining Subcategory

- 409.30 Applicability: description of the liquid cano sugar rolining subcate-
- gory. Specialized definitions. 409.31
- 409.32 Effluent limitations guidelines representing the degree of effluent ro-duction attainable by the application of the best practicable control technology currently available. 409.33 Effluent limitations guidelines repre-
- senting the degree of effluent re-duction attainable by the applica-tion of the best available technelogy economically achievable. 409.34 [Reserved]
- 409.35 Standards of performance for new sources.
- 409.36 Pretreatment standards for new sources.

### Subpart B—Crystalline Cane Sugar Refining Subcategory

§ 409.20 Applicability; description of the crystalline cane sugar refining subcategory.

The provisions of this subpart are applicable to discharges resulting from the processing of raw cane sugar into crystalline refined sugar.

### § 409.21 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.

this chapter shall apply to this subpart. (b) Net shall mean the addition of pollutants.

(c) Melt shall mean that amount of raw material (raw sugar) contained within aqueous solution at the beginning of the process for production of refined cane sugar.

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

(a) In establishing the limitations set forth in this section, EPA took into ac-count 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.

(b) 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:

(1) Any crystalline cane sugar refinery discharging both barometric condenser cooling water and other process waters shall meet the following limitations. The BOD5 limitation is determined by the addition of the net BOD5 attributed to the barometric condenser cooling water to that amount of BOD5 attributed to the treated process water. The TSS limitation is that amount of TSS attributed to the treated process water. Where the barometric condenser cooling water and process water streams are mixed and impossible to measure separately prior to discharge, the values should be considered net.

	Effuent limitations	
Effuent characteristic	Madmum fər any 1 dəy	Average of daily values for C9 concountive day schall not creeed—
	Metrie units (ki kg of	egnams per 1,000 mett)
BOD5. TSS. pH	L 19 27 Within the range	0 43 0 (2) 5 0.0 (2) 9.0.
•	Englich units (pounds per ton meit)	
BOD5. TSS pH	2.33 .54 Within the range	0.83 .15 6.0 to 9.0.

(2) Any crystalline cane sugar refinery discharging barometric condenser cooling water only should be required to achieve the following net limitations:

	Efficient limitations	
Eilluent characteri-tre	Maximum for any 1 day	Average of daily values for C9 concentive days shall not exceed—
	Metric units (kilozamus per 1,6 kg of melt)	
	Metrie mars (k	normuns per 1.00 funcit)
BOD5	L 02	(1977ams per 1,00 fmclt) 0.31
BOD5	Metric units (k kg o 1.02 Engli (Pounds pc	0.34 C.34 Eh units r ten of melt)

§ 409.23 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:



# § 409.24 [Reserved]

# § 409.25 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 limitations	
Efficient churanten tiz	Maximum for any 1 day	Average of daily values for 20 concentive days thall not exceed—
	Metrie units fk kg o	ilograma por 1,600 f meltj
BODS. TSS. pH	. 0.18 11 Wathin the range	0.69 .635 6.9 to 9.9.
	Ecclich unit toa c	3 (pounds per I melti
BODS. Test. pH.	. 0.23 .21 . Within the range	0. 19 . 07 6.9 to 9.0.

§ 409.26 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the crystalline cane sugar refining 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 that, for the purpose of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new cources specified in 40 CFR 409.23; *Provided*, That, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

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# Subpart C—Liquid Cane Sugar Refining Subcategory

§ 409.30 Applicability; description of the liquid cane sugar refining subcategory.

The provisions of this subpart are applicable to discharges resulting from the processing of raw cane sugar into liquid refined sugar.

# § 409.31 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) Net shall mean the addition of pollutants.

(c) Melt shall mean that amount of raw material (raw sugar) contained within aqueous solution at the beginning of the process for production of refined cane sugar.

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

(a) 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 limita-tions, or initiate proceedings to revise these regulations.

(b) 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:

(1) Any liquid cane sugar refinery discharging both barometric condenser cooling water and other process waters shall meet the following limitations. The BOD5 limitation is determined by the addition of the net BOD5 attributed to the barometric condenser cooling water to that amount of BOD5 attributed to the treated process water. The TSS limitation is that amount of TSS attributed to the treated process water. Where the barometric condenser cooling water and process water streams are mixed and impossible to measure separately prior to discharge, the values should be considered net.

-	Effluent limitations		
Effluent characteristic	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—	
	Metric units (kilograms per 1,000 kg of melt)		
BOD5 TSS pH	0.78 .50 Within the range	0. 32 . 17 n 6.0 to 9.0.	
×	English units (pounds per ton of melt)		
BODS. TSS. pII.	L 56 _ 99 Within the rang	0, 63 , 33 c 6.0 to 9.0,	

(2) Any liquid cane sugar refinery discharging barometric condenser cooling water only shall meet the following net limitations:

	'Effluent limitations	
Effluent characteristic	Maximum for any 1 day	A verage of daily values for 30 consecutive days shall not exceed—
<b></b>	Metric units (ki kg o	llograms per 1,000 ( mclt)
BOD5	Metrie units (k kg ol 0.45	llograms per 1,000 ( mclt) 0.15
BOD5	Metric units (k kg ol 0.45 English units (j	llograms per 1,000 (mclt) 0.15 pounds per ton of ielt)

§ 409.33 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:

	Efficient limitations	
Effluent characteristic	Maximum for any 1 day	Average of daily values for 39 consecutive days shall not exceed—
	Metric units (kilograms per 1. Eg of melt)	
BOD <sup>5</sup> TSS pII.	0, 39 . 09 Within the range	4, 16 . 63 6 6.0 to 9.0,
	English units (pound : per to melt)	
BODJ.	0, 69	0 30
pII	Within the range 6.0 to 9.0,	

### § 409.34 [Reserved]

§ 409.35 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	limitations	
Effluent characteristle	Maximum for day 1 day	Average of daily values for 39 con-contive days chall not exceed—	
	Metric units (k kg o	llograms per 1,000 - ( melt)	
BOD5 TSS pH	0 20 69 Within the rang	0 16 .03 6 6.0 to 9.0	
	English units (	pounds per ton of ielt)	
BODS. TSS	- 0.60 . 18 Within the tang	0 30 , 04 e 6 8 fo 4.6	

### § 409.36 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the liquid cane sugar refining 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), shell be the standard set forth in Part 128, of this chapter, except that, for the purpose of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set for h in 40 CFR 123.131, the protreatment standard for incompatible pollutants introduced into a publicly owned treatment works chall be the standard of performance for new sources specified in 40 CFR 409.35; *Provided*, That, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works chall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

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