

# Register

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To provide for the conveyance of certain mineral rights in and under lands in Onslow County, North Carolina	(Dec. 15, 1973; 87 Stat. 710)
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To amend title 39, United States Code, to clarify the proper use of the franking privilege by Members of Congress, and for other purposes	(Dec. 18, 1973; 87 Stat. 737)
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S. 1747	Pub. Law 93-193
To amend the International Travel Act of 1961 to authorize appropriations for fiscal years, 1974, 1975, and 1976, and for other purposes	(Dec. 19, 1973; 87 Stat. 765)
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# Rules and Regulations

This section of the FEDERAL REGISTER contains regulatory documents having general applicability and legal effect most of which are keyed to and codified in the Code of Federal Regulations, which is published under 50 titles pursuant to 44 U.S.C. 1510.

The Code of Federal Regulations is sold by the Superintendent of Documents. Prices of new books are listed in the first FEDERAL REGISTER issue of each month.

## Title 7—Agriculture

### CHAPTER I—AGRICULTURAL MARKETING SERVICE (STANDARDS, INSPECTIONS, MARKETING PRACTICES), DEPARTMENT OF AGRICULTURE

#### SUBCHAPTER C—REGULATIONS AND STANDARDS UNDER THE AGRICULTURAL MARKETING ACT OF 1946

Under authority contained in the Agricultural Marketing Act of 1946, as amended (7 U.S.C. et seq.), the U.S. Department of Agriculture hereby amends the Regulations Governing the Grading and Inspection of Domestic Rabbits and Edible Products Thereof and U.S. Specifications for Classes, Standards and Grades With Respect Thereto (7 CFR Part 54), the Regulations Governing the Voluntary Inspection and Grading of Egg Products (7 CFR Part 55), the Regulations Governing the Grading of Shell Eggs and U.S. Standards, Grades, and Weight Classes for Shell Eggs (7 CFR Part 56), and the Regulations Governing the Grading and Inspection of Poultry and Edible Products Thereof and U.S. Classes, Standards, and Grades With Respect Thereto (7 CFR Part 70) as set forth below:

#### STATEMENTS OF CONSIDERATIONS

The purpose of these amendments is to provide a change in the fee structure to implement the conversion of Federal poultry and shell egg graders from Non-allocated Cooperatively Controlled employees (employees in the "excepted service" whose salaries are fixed under a cooperative agreement) to regular "competitive" Civil Service employees whose salaries are set by law.

This conversion is being made in all States with Federal or a combination of Federal and State poultry and shell egg graders, which operate under a Federal Trust Fund Agreement for voluntary grading and inspection service. Under a Federal Trust Fund Agreement, the Federal Government assumes the responsibility for the billing and collection of the fees for services.

The Agricultural Marketing Service is converting Federal poultry and shell egg graders into the "competitive service" in keeping with U.S. Civil Service Commission regulations. These regulations require that, when practical, all Federal employees be selected competitively through the use of Civil Service examination. Most of the agricultural commodity grading and inspection positions, other than poultry and shell egg graders, have already been converted into the competitive service. These include meat graders, grain graders, and fruit and vegetable graders.

In addition, it has been determined that these personnel will no longer have their salaries fixed under a cooperative agreement. Cooperative Agreements under which poultry and shell graders' salaries have been set in the past, have been amended to no longer set graders' salaries. Accordingly, such personnel will have their salaries set the same as other regular Federal employees under the "General Schedule" (GS).

The conversion of Federal poultry and shell egg graders into the competitive service, and paying them as other Federal employees, will have little impact on plants using the voluntary grading and inspection services. Presently, the salaries of Federal poultry and shell egg graders are based, primarily, on the salary scales of other Federal ("competitive") employees. The primary difference will be that, whereas poultry and shell egg graders have been granted a pay raise in January of each year, they will, when these amendments take effect, receive pay increases as provided by law like other Federal employees. The hourly rate charge billed to plants will be based on a national average. This will even out differences in salaries caused by longevity or length of service pay increases. Two rates will be involved—one for grading service performed at the GS-7 level, and the other for grading service performed at the GS-9 level.

When the egg products inspection program became mandatory, the "excepted" employees who served as inspectors when the egg products inspection program was voluntary were converted to "competitive" employees. We are not permitted to use "excepted" employees to perform the work of "competitive" employees. This seriously hampers the efficiency of our grading and inspection programs, since qualified poultry and shell egg graders and egg products inspectors had been used interchangeably for relief work, emergencies, etc. Conversion of poultry and shell egg graders to "competitive" status will permit the interchange of all employees.

The amendments also make minor changes in some sections solely to clarify present provisions and to include other provisions now covered by administrative instructions. These changes do not affect the previous or amended fee structures.

The facts upon which the amendments are based are peculiarly within the knowledge of the Department. It does not appear that public rulemaking would result in the Department receiving any additional information on the changes.

Accordingly, under the administrative procedure provisions in 5 U.S.C. 553, it

is found upon good cause that rulemaking and other public procedure on the amendments are impracticable and unnecessary, and good cause is found for making said amendments effective less than 30 days after publication in the FEDERAL REGISTER.

The amendments are as follows:

#### Part 54—Grading and Inspection of Domestic Rabbits and Edible Products Thereof; and U.S. Specifications for Classes, Standards, and Grades With Respect Thereto

In § 54.108, paragraph (a) (6) is deleted, and paragraph (a) (3) and (4) is amended to read as follows:

#### § 54.108 Continuous grading performed on a resident basis.

##### (a) Charges. \* \* \*

(3) A charge for the salary and other costs, as specified in this subparagraph, for each grader while assigned to a plant, except that no charge will be made when the assigned grader is temporarily reassigned by AMS to perform grading service for other than the applicant. Base salary rates will be determined on a national average for all official plants operating in States under a Federal Trust Fund Agreement where Federal graders or a combination of Federal and State graders are used, by averaging the salary rates paid to each full-time Federal or State grader assigned to such plants. There will be two base salary rates—one for grading service performed at the GS-7 level, and one for grading service performed at the GS-9 level. Charges to plants are as follows:

(i) For all regular hours of work scheduled and approved as an established tour of duty for a plant, the regular rate charge will be made. The regular rate charge will be determined by adding an amount to the base salary rate to cover the costs to AMS for such items as the Employer's Tax imposed under the U.S. Internal Revenue Code (26 U.S.C.) for Old Age and Survivor's Benefits under the Social Security System, retirement benefits, group life insurance, severance pay, sick leave, annual leave, additional salary and travel costs for relief grading service, accident payments, certain moving costs, and related servicing costs.

(ii) All hours worked by an assigned grader or another grader in excess of the approved tour of duty, or worked on a nonscheduled workday, or actually worked on a holiday in excess of the tour of duty, will be considered as overtime. The charge for such overtime will be 150 percent of the grader's base salary



rate plus an added 10 percent for administrative overhead charges.

(iii) For work performed on a holiday which is within the established tour of duty approved for a plant, the added charge will be the same as the grader's base rate plus an added 10 percent for administrative overhead charges.

(iv) For work performed between 6 p.m. and 6 a.m., night differential charges (for regular, overtime, or holiday hours worked during this period) will be at the applicable rates established plus 10 percent of the base rate.

(v) For all hours of work performed in a plant without an approved tour of duty, the charge will be one of the applicable hourly rates in § 54.101.

(vi) For work performed by an employee of another Federal agency on a part-time basis for the Poultry Division, AMS, the charge will be the established hourly rate agreed to between the two agencies for cross-utilized employees.

(4) A charge for the actual cost to AMS for any other expenses incurred by AMS (including travel and per diem costs) plus an added 10 percent for administrative overhead charges:

(i) For each grader, other than a relief grader, who performs work on a day with an established tour of duty.

(ii) For each grader normally assigned to the plant, while performing grading service at the applicant's request outside his official plant.

#### Part 55—Voluntary Inspection of Egg Products and Grading

In § 55.560, paragraph (a) (3) and (4) is amended to read as follows:

§ 55.560 Charges for continuous inspection and grading service on a resident basis.

##### (a) Charges

(3) A charge for the salary and other costs, as specified in this subparagraph, for each grader or inspector while assigned to a plant, except that no charge will be made when the assigned grader or inspector is temporarily reassigned by AMS to perform grading or inspection service for other than the applicant. Base salary rates will be determined on a national average for all official plants operating in States under a Federal Trust Fund Agreement where Federal graders or a combination of Federal and State graders are used, by averaging the salary rates paid to each full-time Federal or State grader assigned to such plants. There will be two base salary rates—one for grading or inspection service performed at the GS-7 level, and one for grading or inspection service performed at the GS-9 level. Charges to plants are as follows:

(i) For all regular hours of work scheduled and approved as an established tour of duty for a plant, the regular rate charge will be made. The regular rate charge will be determined by adding an amount to the base salary rate to cover the costs to AMS for such items as the Employer's Tax imposed under the U.S.

Internal Revenue Code (26 U.S.C.) for Old Age and Survivor's Benefits under the Social Security System, retirement benefits, group life insurance, severance pay, sick leave, annual leave, additional salary and travel costs for relief grading service, accident payments, certain moving costs, and related servicing costs.

(ii) All hours worked by an assigned grader or inspector or another grader or inspector in excess of the approved tour of duty, or worked on a nonscheduled workday, or actually worked on a holiday in excess of the tour of duty, will be considered as overtime. The charge for such overtime will be 150 percent of the grader's or inspector's base salary rate plus an added 10 percent for administrative overhead charges.

(iii) For work performed on a holiday which is within the established tour of duty approved for a plant, the added charge will be the same as the grader's or inspector's base rate plus an added 10 percent for administrative overhead charges.

(iv) For work performed between 6 p.m. and 6 a.m., night differential charges (for regular, overtime, or holiday hours worked during this period) will be at the applicable rates established plus 10 percent of the base rate.

(v) For all hours of work performed in a plant without an approved tour of duty, the charge will be one of the applicable hourly rates in § 55.510.

(vi) For work performed by an employee of another Federal agency on a part-time basis for the Poultry Division, AMS, the charge will be the established hourly rate agreed to between the two agencies for cross-utilized employees.

(4) An administrative overhead charge of 10 percent for all charges made to the applicant for expenses incurred by each grader or inspector assigned while performing service at the applicant's request.

#### Part 56—Grading of Shell Eggs and U.S. Standards, Grades, and Weight Classes for Shell Eggs

1. In § 56.52, paragraph (a) (6) is deleted, and paragraph (a) (3) and (4) is amended to read as follows.

§ 56.52 Continuous grading performed on a resident basis.

##### (a) Charges

(3) A charge for the salary and other costs, as specified in this subparagraph, for each grader while assigned to a plant, except that no charge will be made when the assigned grader is temporarily reassigned by AMS to perform grading service for other than the applicant. Base salary rates will be determined on a national average for all official plants operating in States under a Federal Trust Fund Agreement where Federal graders or a combination of Federal and State graders are used, by averaging the salary rates paid to each full-time Federal or State grader assigned to such plants. There will be two base salary rates—one for grading service performed at the GS-7 level, and one for grading service

performed at the GS-9 level. Charges to plants are as follows:

(i) For all regular hours of work scheduled and approved as an established tour of duty for a plant, the regular rate charge will be made. The regular rate charge will be determined by adding an amount to the base salary rate to cover the costs to AMS for such items as the Employer's Tax imposed under the U.S. Internal Revenue Code (26 U.S.C.) for Old Age and Survivor's Benefits under the Social Security System, retirement benefits, group life insurance, severance pay, sick leave, annual leave, additional salary and travel costs for relief grading service, accident payments, certain moving costs, and related servicing costs.

(ii) All hours worked by an assigned grader or another grader in excess of the approved tour of duty, or worked on a nonscheduled workday, or actually worked on a holiday in excess of the tour of duty, will be considered as overtime. The charge for such overtime will be 150 percent of the grader's base salary rate plus an added 10 percent for administrative overhead charges.

(iii) For work performed on a holiday which is within the established tour of duty approved for a plant, the added charge will be the same as the grader's base rate plus an added 10 percent for administrative overhead charges.

(iv) For work performed between 6 p.m. and 6 a.m., night differential charges (for regular, overtime, or holiday hours worked during this period) will be at the applicable rates established plus 10 percent of the base rate.

(v) For all hours of work performed in a plant without an approved tour of duty, the charge will be one of the applicable hourly rates in § 56.46.

(vi) For work performed by an employee of another Federal agency on a part-time basis for the Poultry Division, AMS, the charge will be the established hourly rate agreed to between the two agencies for cross-utilized employees.

(4) A charge for the actual cost to AMS for any other expenses incurred by AMS (including travel and per diem costs) plus an added 10 percent for administrative overhead charges:

(i) For each grader, other than a relief grader, who performs work on a day with an established tour of duty.

(ii) For each grader normally assigned to the plant, while performing grading service at the applicant's request outside his official plant.

2. In § 56.54, paragraph (a) (2) is amended to read as follows.

§ 56.54 Charges for continuous grading performed on a nonresident basis.

##### (a) Charges

(2) A charge for the salary and other costs, as specified in this subparagraph, for each grader while assigned to a plant, except that no charge will be made when the assigned grader is temporarily reassigned by AMS to perform grading service for other than the applicant.



Base salary rates will be determined on a national average for all official plants operating in States under a Federal Trust Fund Agreement where Federal graders or a combination of Federal and State graders are used, by averaging the salary rates paid to each full-time Federal or State grader assigned to such plants. There will be two base salary rates—one for grading service performed at the GS-7 level, and one for grading service performed at the GS-9 level. Charges to plants are as follows:

(i) For all regular hours of work scheduled and approved as an established tour of duty for a plant, the regular rate charge will be made. The regular rate charge will be determined by adding an amount to the base salary rate to cover the costs to AMS for such items as the Employer's Tax imposed under the U.S. Internal Revenue Code (26 U.S.C.) for Old Age and Survivor's Benefits under the Social Security System, retirement benefits, group life insurance, severance pay, sick leave, annual leave, additional salary and travel costs for relief grading service, accident payments, certain moving costs, and related servicing costs.

(ii) All hours worked by an assigned grader or another grader in excess of the approved tour of duty, or worked on a nonscheduled workday, or actually worked on a holiday in excess of the tour of duty, will be considered as overtime. The charge for such overtime will be 150 percent of the grader's base salary rate.

(iii) For work performed on a holiday which is within the established tour of duty approved for a plant, the added charge will be the same as the grader's base rate.

(iv) For work performed between 6 p.m. and 6 a.m., night differential charges (for regular, overtime, or holiday hours worked during this period) will be at the applicable rates established plus 10 percent of the base rate.

(v) For all hours of work performed in a plant without an approved tour of duty, the charge will be one of the applicable hourly rates in § 56.46.

(vi) For work performed by an employee of another Federal agency on a part-time basis for the Poultry Division, AMS, the charge will be the established hourly rate agreed to between the two agencies for cross-utilized employees.

**Part 70—Grading and Inspection of Poultry and Edible Products Thereof; and U.S. Classes, Standards, and Grades With Respect Thereto**

1. In § 70.137, paragraph (a)(2) is amended to read as follows.

§ 70.137 Charges for continuous grading performed on a nonresident basis.

**(a) Charges**

(3) A charge for the salary and other costs, as specified in this subparagraph, for each grader while assigned to a plant, except that no charge will be made when the assigned grader is temporarily re-

assigned by AMS to perform grading service for other than the applicant. Base salary rates will be determined on a national average for all official plants operating in States under a Federal Trust Fund Agreement where Federal graders or a combination of Federal and State graders are used, by averaging the salary rates paid to each full-time Federal or State grader assigned to such plants. There will be two base salary rates—one for grading service performed at the GS-7 level, and one for grading service performed at the GS-9 level. Charges to plants are as follows:

(i) For all regular hours of work scheduled and approved as an established tour of duty for a plant, the regular rate charge will be made. The regular rate charge will be determined by adding an amount to the base salary rate to cover the costs to AMS for such items as the Employer's Tax imposed under the U.S. Internal Revenue Code (26 U.S.C.) for Old Age and Survivor's Benefits under the Social Security System, retirement benefits, group life insurance, severance pay, sick leave, annual leave, additional salary and travel costs for relief grading service, accident payments, certain moving costs, and related servicing costs.

(ii) All hours worked by an assigned grader or another grader in excess of the approved tour of duty, or worked on a nonscheduled workday, or actually worked on a holiday in excess of the tour of duty, will be considered as overtime. The charge for such overtime will be 150 percent of the grader's base salary rate.

(iii) For work performed on a holiday which is within the established tour of duty approved for a plant, the added charge will be the same as the grader's base rate.

(iv) For work performed between 6 p.m. and 6 a.m., night differential charges (for regular, overtime, or holiday hours worked during this period) will be at the applicable rates established plus 10 percent of the base rate.

(v) For all hours of work performed in a plant without an approved tour of duty, the charge will be one of the applicable hourly rates in § 70.131.

(vi) For work performed by an employee of another Federal agency on a part-time basis for the Poultry Division, AMS, the charge will be the established hourly rate agreed to between the two agencies for cross-utilized employees.

2. In § 70.138, paragraph (a)(6) is deleted, and paragraph (a)(3) and (4) is amended to read as follows.

§ 70.138 Continuous grading performed on a resident basis.

**(a) Charges**

(3) A charge for the salary and other costs, as specified in this subparagraph, for each grader while assigned to a plant, except that no charge will be made when the assigned grader is temporarily reassigned by AMS to perform grading

service for other than the applicant. Base salary rates will be determined on a national average for all official plants operating in States under a Federal Trust Fund Agreement where Federal graders or a combination of Federal and State graders are used, by averaging the salary rates paid to each full-time Federal or State grader assigned to such plants. There will be two base salary rates—one for grading service performed at the GS-7 level, and one for grading service performed at the GS-9 level. Charges to plants are as follows:

(i) For all regular hours of work scheduled and approved as an established tour of duty for a plant, the regular rate charge will be made. The regular rate charge will be determined by adding an amount to the base salary rate to cover the costs to AMS for such items as the Employer's Tax imposed under the U.S. Internal Revenue Code (26 U.S.C.) for Old Age and Survivor's Benefits under the Social Security System, retirement benefits, group life insurance, severance pay, sick leave, annual leave, additional salary and travel costs for relief grading service, accident payments, certain moving costs, and related servicing costs.

(ii) All hours worked by an assigned grader or another grader in excess of the approved tour of duty, or worked on a nonscheduled workday, or actually worked on a holiday in excess of the tour of duty, will be considered as overtime. The charge for such overtime will be 150 percent of the grader's base salary rate plus an added 10 percent for administrative overhead charges.

(iii) For work performed on a holiday which is within the established tour of duty approved for a plant, the added charge will be the same as the grader's base rate plus an added 10 percent for administrative overhead charges.

(iv) For work performed between 6 p.m. and 6 a.m., night differential charges (for regular, overtime, or holiday hours worked during this period) will be at the applicable rates established plus 10 percent of the base rate.

(v) For all hours of work performed in a plant without an approved tour of duty, the charge will be one of the applicable hourly rates in § 70.131.

(vi) For work performed by an employee of another Federal agency on a part-time basis for the Poultry Division, AMS, the charge will be the established hourly rate agreed to between the two agencies for cross-utilized employees.

(4) A charge for the actual cost to AMS for any other expenses incurred by AMS (including travel and per diem costs) plus an added 10 percent for administrative overhead charges:

(i) For each grader, other than a relief grader, who performs work on a day with an established tour of duty.

(ii) For each grader normally assigned to the plant, while performing grading service at the applicant's request outside his official plant.



Done at Washington, D.C., this 18th day of December.

To become effective January 1, 1974.

E. L. PETERSON,  
Administrator,  
Agricultural Marketing Service.

[FR Doc. 73-27012 Filed 12-21-73; 8:45 am]

# CHAPTER VIII—AGRICULTURAL STABILIZATION AND CONSERVATION SERVICE (SUGAR), DEPARTMENT OF AGRICULTURE

[Sugar Regulation 812, Amendment 1]

## SUBCHAPTER B—SUGAR REQUIREMENTS AND QUOTAS

### PART 812—SUGAR REQUIREMENTS AND QUOTAS: HAWAII AND PUERTO RICO

#### Establishment of Quotas for Local Consumption in 1973

**Basis and purpose.** This amendment is issued under section 203 of the Sugar Act of 1948, as amended (61 Stat. 925, as amended; 7 U.S.C. 1113), hereinafter called the "Act," for the purpose of amending Sugar Regulation 812 (38 FR 845) which established local sugar quotas for Puerto Rico and Hawaii for 1973.

Section 203 of the Act requires a determination of the amount of sugar needed to meet the requirements of consumers in Puerto Rico and Hawaii and the establishment of quotas for the amounts of sugar which may be marketed for local consumption in such areas equal to the amounts determined to be needed to meet the requirements of consumers therein.

This amendment is necessary to increase the local quota for Puerto Rico for 1973. Based on local sugar distribution in Puerto Rico in 1973 through September and estimated distribution from October to December it appears that the 1973 local quota of 140,000 tons in Puerto Rico will be exceeded by more than 10,000 short tons, raw value.

Accordingly, the local sugar requirements and the quota for Puerto Rico are hereby increased by 15,000 short tons, raw value, to 155,000 short tons, raw value.

By virtue of the authority vested in the Secretary of Agriculture by the Act, Part 812 of this chapter is hereby amended by amending § 812.2 as follows:

#### § 812.2 Sugar requirements and quota—Puerto Rico.

It is hereby determined, pursuant to section 203 of the Act, that the amount of sugar needed to meet the requirements of consumers in Puerto Rico for the calendar year 1973 is 155,000 short tons, raw value, and a quota of 155,000 short tons, raw value, is hereby established for Puerto Rico for local consumption for the calendar year 1973.

(Secs. 201, 203, 209, 211 and 403; 61 Stat. 923, as amended, 925, as amended, 928, as amended, and 932; 7 U.S.C. 1111, 1113, 1119, 1121, and 1153)

**Effective date.** This action increases the sugar quota for local consumption in Puerto Rico for 1973 by 15,000 tons. In

order to promote orderly marketing, it is essential that this amendment be effective immediately so that all persons selling and purchasing sugar for consumption in Puerto Rico can promptly plan and market under the changed marketing opportunities. Therefore, it is hereby determined and found that compliance with the notice, procedure, and effective date requirements of 5 U.S.C. 553 is unnecessary, impracticable, and contrary to the public interest and this amendment shall be effective December 21, 1973.

Signed at Washington, D.C., on December 18, 1973.

GLENN A. WEIR,  
Acting Administrator, Agricultural Stabilization and Conservation Service.

[FR Doc. 73-27015 Filed 12-21-73; 8:45 am]

# CHAPTER IX—AGRICULTURAL MARKETING SERVICE (MARKETING AGREEMENTS AND ORDERS; FRUITS, VEGETABLES, NUTS), DEPARTMENT OF AGRICULTURE

[Navel Orange Reg. 303, Amendment 1]

## PART 907—NAVEL ORANGES GROWN IN ARIZONA AND DESIGNATED PART OF CALIFORNIA

### Limitation of Handling

This regulation increases the quantity of California-Arizona Navel oranges that may be shipped to fresh market during the weekly regulation period Dec. 14-20, 1973. The quantity that may be shipped is increased due to improved market conditions for Navel oranges. The regulation and this amendment are issued pursuant to the Agricultural Marketing Agreement Act of 1937, as amended, and Marketing Order No. 907.

(a) **Findings.** (1) Pursuant to the marketing agreement, as amended, and Order No. 907, as amended (7 CFR Part 907), regulating the handling of Navel oranges grown in Arizona and designated part of California, effective under the applicable provisions of the Agricultural Marketing Agreement Act of 1937, as amended (7 U.S.C. 601-674), and upon the basis of the recommendations and information submitted by the Navel Orange Administrative Committee, established under the said amended marketing agreement and order, and upon other available information, it is hereby found that the limitation of handling of such Navel oranges, as hereinafter provided, will tend to effectuate the declared policy of the act.

(2) The need for an increase in the quantity of oranges available for handling during the current week results from changes that have taken place in the marketing situation since the issuance of Navel Orange Regulation 303 (38 FR 34314). The marketing picture now indicates that there is a greater demand for Navel oranges than existed when the regulation was made effective. Therefore, in order to provide an opportunity for handlers to handle a sufficient volume of Navel oranges to fill

the current market demand thereby making a greater quantity of Navel oranges available to meet such increased demand, the regulation should be amended, as hereinafter set forth.

(3) It is hereby further found that it is impracticable and contrary to the public interest to give preliminary notice, engage in public rule-making procedure, and postpone the effective date of this amendment until January 25, 1974, (5 U.S.C. 553) because the time intervening between the date when information upon which this amendment is based became available and the time when this amendment must become effective in order to effectuate the declared policy of the act is insufficient, and this amendment relieves restriction on the handling of Navel oranges grown in Arizona and designated part of California.

(b) **Order, as amended.** The provisions in paragraph (b)(1)(i) and (iii) of § 907.603 (Navel Orange Regulation 303 (38 FR 34314)) are hereby amended to read as follows:

- (i) District 1: 801,000 cartons;
- (iii) District 3: 99,000 cartons.

(Secs. 1-19, 48 Stat. 31, as amended; 7 U.S.C. 601-674)

Dated: December 19, 1973.

CHARLES R. BRADER,  
Deputy Director, Fruit and Vegetable Division, Agricultural Marketing Service.

[FR Doc. 73-27010 Filed 12-21-73; 8:45 am]

## Title 9—Animals and Animal Products

### CHAPTER I—ANIMAL AND PLANT HEALTH INSPECTION SERVICE, DEPARTMENT OF AGRICULTURE

#### SUBCHAPTER D—EXPORTATION AND IMPORTATION OF ANIMALS (INCLUDING POULTRY) AND ANIMAL PRODUCTS

### PART 94—RINDERPEST, FOOT-AND-MOUTH DISEASE, FOWL PEST (FOWL PLAGUE), NEWCASTLE DISEASE (AVIAN PNEUMOENCEPHALITIS), AFRICAN SWINE FEVER, AND HOG CHOLERA: PROHIBITED AND RESTRICTED IMPORTATIONS

#### Change in Disease Status of the Federal Republic of Germany

**Statement of considerations.** The purpose of these amendments is to delete the Federal Republic of Germany (1) from the list of countries in § 94.12(a) which are listed as free of swine vesicular disease; and (2) from the list of countries in § 94.13 which are declared to be free of swine vesicular disease in § 94.12(a) but which supplement their national meat supply by the importation of fresh, chilled, or frozen meat of swine from countries where swine vesicular disease is considered to exist; which have a common border with such countries; or which have certain trade practices that are less restrictive than are acceptable to the United States. This action to further restrict the importation of fresh, chilled, or frozen meats of swine into the United States from the Federal Republic of Germany is necessary to protect the livestock of the United States.



Accordingly, Part 94, Title 9, Code of Federal Regulations, is hereby amended as follows:

1. In § 94.12(a) the name of the Federal Republic of Germany is deleted.

2. In § 94.13 in the first sentence of the introductory paragraph, the name of the Federal Republic of Germany is deleted.

(Sec. 2, 32 Stat. 792, as amended; secs. 2, 3, 4, and 11, 76 Stat. 129, 130, 132; 21 U.S.C. 111, 134a, 134b, 134c, 134f; 37 FR 28464, 28477; 38 FR 19141)

**Effective date.** The foregoing amendments shall become effective on December 19, 1973, except with respect to intrastate shipments of pork and pork products that are on board a carrier moving to the United States at the time of issuance hereof. Such intrastate shipments shall upon arrival in the United States be allowed entry only under such specific requirements or be disposed of in such manner as the Administrator may determine in each specific case to be necessary and adequate to safeguard against the introduction or dissemination of swine vesicular disease into the United States.

The restrictions imposed by these amendments must be made effective immediately to protect the live stock industry of the United States against the introduction of swine vesicular disease from foreign countries. It does not appear that public participation in this rule-making proceeding would make additional relevant information available to the Department.

Accordingly, under the administrative procedure provisions in 5 U.S.C. 553, it is found upon good cause that notice and other public procedure with respect to the amendments are impracticable and unnecessary, and good cause is found for making them effective less than 30 days after publication in the *FEDERAL REGISTER*.

Done at Washington, D.C., this 19th day of December 1973.

E. E. SAULMON,  
Deputy Administrator, Veterinary Services, Animal and Plant Health Inspection Service.

[FR Doc. 73-27037 Filed 12-21-73; 8:45 am]

# Title 12—Banks and Banking CHAPTER II—FEDERAL RESERVE SYSTEM

[Reg. Q]

## PART 217—INTEREST ON DEPOSITS

### Federal Funds Transactions

#### § 217.138 Nonbank participation in "Federal funds" market.

(a) The Board has recently considered whether the use of "interbank loan participations" ("IBLPs"), which involves participation by nonbank third parties in Federal funds transactions, comes within the exemption from "deposit" classification for certain obligations between banks contained in § 204.1(f) of Regulation D and § 217.1(f) of Regulation Q. An IBLP transaction is one through

which a bank that has sold Federal funds to another bank, subsequently "sells" or participates out its loan contract to a nonbank third party without notifying the bank that has "purchased" its funds.

(b) The Board's 1970 interpretation regarding Federal funds transactions (§ 217.137) clarifies the meaning of "bank" as that term is used in the exemption for liabilities to banks. Paragraph (b) of that interpretation states that the purpose of requiring that interbank transactions be issued to another bank for its own account, in order to come within the non-deposit exemption, is "to assure that the exemption for liabilities to banks is not used as a means by which nonbanks may arrange through a bank to 'sell' Federal funds to a member bank that are not subject to Regulations D and Q". The Board regards transactions which result in third parties gaining access to the Federal funds interbank loan market as contrary to the interbank exemption contained in § 217.1 (f) of Regulation Q, and § 204.1(f) of Regulation D regardless of whether the nonbank third party is a party to the initial interbank transaction or thereafter becomes a participant in the transaction through purchase of all or part of the obligation held by "selling" bank.

(c) The Board regards the notice requirements set out in § 217.137 as applicable to IBLP-type transactions as described herein so that a bank "selling" Federal funds must provide to the purchasing bank (1) notice of its intention, at the time of the initial transaction, to sell or participate out its loan contract to a nonbank third party, and (2) full and prompt notice whenever it (the "selling" bank) subsequently sells or participates out its loan contract to a nonbank third party.

By order of the Board of Governors,  
November 15, 1973.

[SEAL] CHESTER B. FELDBERG,  
Secretary of the Board.

[FR Doc. 73-26994 Filed 12-21-73; 8:45 am]

## SUBCHAPTER A—BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

[Reg. Y]

### PART 225—BANK HOLDING COMPANIES

#### PART 250—MISCELLANEOUS INTERPRETATIONS

##### § 225.130 Issuance and sale of short-term debt obligations by bank holding companies.

For text of interpretation, see § 250.221 of this chapter.

##### § 250.221 Issuance and sale of short-term debt obligations by bank holding companies.

(a) The opinion of the Board of Governors of the Federal Reserve System has been requested recently with respect to the proposed sale of "thrift notes" by a bank holding company for the purpose of supplying capital to its wholly-owned nonbanking subsidiaries.

(b) The thrift notes would bear the name of the holding company, which in

the case presented, was substantially similar to the name of its affiliated banks. It was proposed that they be issued in denominations of \$50 to \$100 and initially be of 12-month or less maturities. There would be no maximum amount of the issue. Interest rates would be variable according to money market conditions but would presumably be at rates somewhat above those permitted by Regulation Q ceilings. There would be no guarantee or indemnity of the notes by any of the banks in the holding company system and, if required to do so, the holding company would place on the face of the notes a negative representation that the purchase price was not a deposit, nor an indirect obligation of banks in the holding company system, nor covered by deposit insurance.

(c) The notes would be generally available for sale to members of the public, but only at offices of the holding company and its nonbanking subsidiaries. Although offices of the holding company may be in the same building or quarters as its banking offices, they would be physically separated from the banking offices. Sales would be made only by officers or employees of the holding company and its nonbanking subsidiaries. Initially, the notes would only be offered in the State in which the holding company was principally doing business, thereby complying with the exemption provided by section 3(a)(11) of the Securities Act of 1933 (15 U.S.C. 77c) for "intra-state" offerings. If it was decided to offer the notes on an interstate basis, steps would be taken to register the notes under the Securities Act of 1933. Funds from the sale of the notes would be used only to supply the financial needs of the nonbanking subsidiaries of the holding company. These nonbank subsidiaries are, at present, a small loan company, a mortgage banking company and a factoring company. In no instance, would the proceeds from the sale of the notes be used in the bank subsidiaries of the holding company nor to maintain the availability of funds in its bank subsidiaries.

(d) The sale of the thrift notes, in the specific manner proposed, is an activity described in section 20 of the Banking Act of 1933 (12 U.S.C. 377), that is, "the issue, flotation, underwriting, public sale or distribution \* \* \* of \* \* \* notes, or other securities". Briefly stated, this statute prohibits a member bank to be affiliated with a company "engaged principally" in such activity. Since the continued issuance and sale of such securities would be necessary to permit maintenance of the holding company's activities without substantial contraction and would be an integral part of its operations, the Board concluded that the issuance and sale of such notes would constitute a principal activity of a holding company within the spirit and purpose of the statute. (For prior Board decisions in this connection, see 1934 Federal Reserve Bulletin 485, 12 CFR 218.104, 12 CFR 218.105 and 12 CFR 218.101.)

(e) In reaching this conclusion, the Board distinguished the proposed activity from the sale of short-term notes



commonly known as "commercial paper", which is a recognized form of financing for bank holding companies. For purposes of this interpretation, "commercial paper" may be defined as notes, with maturities not exceeding nine months, the proceeds of which are to be used for current transactions, which are usually sold to sophisticated institutional investors, rather than to members of the general public, in minimum denominations of \$10,000 (although sometimes they may be sold in minimum denominations of \$5,000). Commercial paper is exempt from registration under the Securities Act of 1933 by reason of the exemption provided by section 3(a)(3) thereof (15 U.S.C. 77c). That exemption is inapplicable where the securities are sold to the general public (17 CFR 231.4412). The reasons for such exemption, taken together with the abuses that gave rise to the passage of the Banking Act of 1933 ("the Glass-Steagall Act") have led the Board to conclude that the issuance of commercial paper by a bank holding company is not an activity intended to be included within the scope of section 20. (Interprets and applies 12 U.S.C. 377 and 1843.)

By order of the Board of Governors,  
effective December 13, 1973.

[SEAL]

CHESTER B. FELDBERG,  
Secretary of the Board.

[FR Doc. 73-26993 Filed 12-21-73; 8:45 am]

#### Title 14—Aeronautics and Space

#### CHAPTER I—FEDERAL AVIATION ADMINISTRATION, DEPARTMENT OF TRANSPORTATION

[Docket No. 73-CE-23-AD; Amdt. 39-1764]

#### PART 39—AIRWORTHINESS DIRECTIVES

##### Beech Models 95-55, 95-A55, 95-B55, 95-C55, D55, D55A, E55 and E55A Airplanes

There have been instances of jammed aileron controls on Beech Model B55 airplanes due to a slipped auto pilot roll servo cable clamp. In addition, investigations have disclosed improperly torqued pitch and roll auto pilot servo cable clamp bolts on this model aircraft. This portion of the auto pilot is installed per STC SA1173SW (EDO-AIRE Mitchell Century III, Autopilot Model AK-292). These conditions, if not correct, could create an inflight hazard to the flight control system of this model aircraft.

Since the condition described herein may exist or develop in other aircraft of the same type design, an Airworthiness Directive (AD) is being issued applicable to Beech Models 95-55, 95-A55, 95-B55, 95-C55, D55, D55A, E55 and E55A airplanes, requiring a one time inspection of the roll and pitch bridle cable and clamps for proper installation. The AD will also require retorquing of the bolts on the cable clamps to the proper value and determining that the necessary clamping pressure is on the cables.

Since a situation exists which requires expeditious adoption of the amendment, notice and public procedure hereon are

impracticable and good cause exists for making this amendment effective in less than 30 days.

In consideration of the foregoing and pursuant to the authority delegated to me by the Administrator 14 CFR 11.89 (31 FR 13697), § 39.13 of Part 39 of the Federal Aviation Regulations is amended by adding the following new AD.

**BEECH.** Applies to Models 95-55, 95-A55, 95-B55 (Serial Numbers TC-1 through TC-1573 except TC-350); 95-C55, D55, D55A, E55 and E55A (Serial Numbers TE-1 through TC-919 and TC-350), airplanes equipped with the EDO-AIRE Mitchell AK-292 Autopilot.

**Compliance:** Required within 25 hours' time in service after the effective date of this AD, unless previously accomplished in accordance with data described herein or any alternate method approved by the Chief, Engineering and Manufacturing Branch, FAA, Central Region.

To determine if the roll and pitch servo clamps have slipped and to assure sufficient torque on the clamp bolts accomplish the following:

(A) Inspect the roll and pitch bridle cables and clamps by:

(1) Running the aileron and pitch controls through their full travel to assure that there is no binding or restrictions between the bridle cables and clamps and aircraft components. Clamps should be positioned so there is no binding or restriction between the bridle cable and capstan flange.

(2) Determine that the bridle cables tensions are the same as the tension of the control cable they are attached to.

(B) Torque the bolts on the cable clamps to 55±5 in. lbs. with a minimum gap of .005 between halves of clamp after torquing.

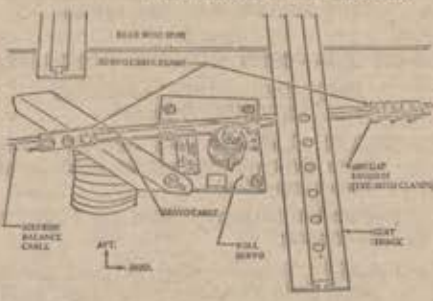
**NOTE:** Figure 1, attached hereto, depicts a typical installation of the bridle cables and clamps.

This amendment becomes effective December 26, 1973.

(Secs. 313(a), 601, 603, Federal Aviation Act of 1958, 49 U.S.C. 1354(a), 1421 and 1423; sec. 6(c), Department of Transportation Act, 49 U.S.C. 1655(c)).

Issued in Kansas City, Missouri, on December 12, 1973.

A. L. COULTER,  
Director, Central Region.



[FR Doc. 73-26991 Filed 12-21-73; 8:45 am]

[Docket No. 73-CE-23-AD; Amdt. 39-1763]

#### PART 39—AIRWORTHINESS DIRECTIVES

##### Cessna Model 500 Airplanes

Cracks have been discovered in the outer pane of the pilot and co-pilot side

windows (P/Ns 5511265-3 and -4 of Cessna Model 500 airplanes. This condition if not discovered and corrected may result in failure of the window and depressurization of the airplane. The manufacturer has issued Cessna Service Letter SL56-2, which provides requirements for repetitive inspections and procedures and instructions for window replacement on this model airplane. X-ray inspections may be performed without removal of aircraft components or alternately, visual inspections are acceptable if certain window retainers are removed.

Since the condition described herein is likely to exist or develop in other airplanes of the same type design an Airworthiness Directive (AD) is being issued applicable to Cessna Model 500 airplanes with 400 or more hours' time in service making compliance with the inspection procedures set forth in the Cessna Service Letter mandatory, requiring an initial inspection within 25 hours' time in service after the effective date of this AD, and repetitive inspections every 100 hours' or 200 hours' thereafter depending on crack length. The AD will also require that replacement windows also meet the requirements of the AD.

Since a situation exists which requires expeditious adoption of the amendment, notice and public procedure hereon are impracticable and good cause exists for making the amendment effective in less than thirty (30) days.

In consideration of the foregoing and pursuant to the authority delegated to me by the Administrator 14 CFR 11.89 (31 FR 13697), § 39.13 of Part 39 of the Federal Aviation Regulations is amended by adding the following new AD.

**CESNA.** Applies to all Cessna Model 500 airplanes with 400 or more hours' time in service.

**Compliance:** Required as indicated, unless already accomplished.

To detect cracks in the left and right flight compartment side windows (P/Ns 5511265-3 and -4), within the next 25 hours' time in service after the effective date of this AD (on all airplanes with 400 or more hours' time in service) and thereafter at intervals not to exceed 200 hours' time in service, except as provided in Paragraph B(2), accomplish the following in accordance with the inspection procedures set forth in Cessna Service Letter SL56-2, dated November 9, 1973, or FAA-approved revisions or any equivalent method approved by the Chief, Engineering and Manufacturing Branch, FAA, Central Region:

(A) Either by use of x-ray procedures outlined in Cessna Service Letter SL56-2, dated November 9, 1973, inspect the flight compartment side windows (P/Ns 5511265-3 and -4) at the attachment locations, or in the alternative, visually inspect the window attachment locations by first removing the window outside retainers in accordance with the manufacturer's service instructions.

B) (1) Prior to further pressurized flight replace unserviceable windows if as a result of any inspection required by this AD any of the following conditions are found:

(a) A crack is visible in the window pane which has progressed past the edge of the retainer.

(b) Any three or more screw holes are interconnected by a crack.



(c) A crack has progressed to three inches or longer.

(d) The sum of individual crack lengths exceeds six inches.

(2) If a crack is discovered in a window pane but does not exceed any of the conditions specified in Paragraph B(1), inspect the window panes each 100 hours' time in service thereafter per Paragraph A of the AD until the window panes are replaced.

C) Upon accumulation of 400 hours' time in service inspect replacement window panes in accordance with the requirements of this AD.

This amendment becomes effective December 26, 1973.

(Secs. 313(a), 601, 603, Federal Aviation Act of 1958, 49 U.S.C. 1354(a), 1421 and 1423; sec. 6(c), Department of Transportation Act, 49 U.S.C. 1655(c).)

Issued in Kansas City, Missouri, on December 12, 1973.

A. L. COULTER,  
Director, Central Region.

[FR Doc. 73-26902 Filed 12-21-73; 8:45 am]

[Docket No. 12384; Amdt. No. 121-107]

**PART 121—CERTIFICATION AND OPERATIONS: DOMESTIC, FLAG, AND SUPPLEMENTAL AIR CARRIERS AND COMMERCIAL OPERATORS OF LARGE AIRCRAFT**

**Appendix A—First-Aid Kits**

The purpose of this amendment to Part 121 of the Federal Aviation Regulations is to revise the quantity and content requirements for first-aid kits required to be carried aboard aircraft operated under Part 121 and to replace the different types of kits presently required with a standard kit. Also, this amendment requires that the appropriate number of first-aid kits be distributed throughout the aircraft cabin and be readily accessible to the cabin flight attendants.

This amendment is based on a notice of proposed rulemaking (Notice 72-30) published in the FEDERAL REGISTER on November 25, 1972 (37 FR 25052). A number of comments were received in response to the Notice and, except for those indicating agreement with the proposal or merely repeating issues discussed and disposed of in the notice, the FAA's disposition of the comments is set forth hereinafter.

Several comments were received suggesting various additions and a deletion to the required list of contents proposed for the first-aid kits. Among the suggested additions were bandage compresses (2 in.), gauze compresses, tourniquet and forceps, eye patches, ophthalmic ointment, decongestants, aspirin, tweezers, an airway, and a pulmonator or Aneu Resuscitative Bag with a sidetube for oxygen input. The FAA does not agree. The list of contents proposed for the first-aid kits was developed by a medical committee composed of physicians representing, among others, air carriers, the Air Transport Association, and the FAA. Their determination as to the contents of the kits resulted from a

study of turbulence accidents aboard aircraft, particularly an incident involving a Boeing 747 in 1972, which resulted in injuries to several passengers.

Some of the additions suggested are items of medical equipment which go beyond the scope of a first-aid kit, such as a pulmonator, or a tourniquet and forceps, or require training to operate. For instance, an airway was considered, but it was determined that an airway should only be used by medically trained personnel. With respect to the ophthalmic ointment, it should be noted that there is no universal ointment for the variety of eye conditions which can occur, and the use of a particular type to treat certain conditions could even be harmful. Some of the additions suggested, such as decongestants, aspirin, and tweezers are items the FAA has determined are not necessary for an inflight first-aid kit, while others, such as the 2-inch bandage compresses, gauze compresses, and eye patches were not included because in the interest of inventory economy, the required 1-inch and 4-inch bandage compresses can be used wherever these items could have served.

Some commentators stated that a burn compound was not necessary since it is no longer included in the recommended first-aid treatment for burns. Other comments were received stating that the quantity of burn compound proposed should be increased. The FAA does not agree. Although there are other approved methods of treating burns, the burn compound can be an effective symptomatic treatment and, the FAA believes that the proposed quantity is sufficient.

Comments were received which suggested regulatory requirements for: (1) constructing the first-aid kit containers from heavy clear plastic, so as to allow inspection of the kits without opening them, (2) prominently marking the kits with bright colors, (3) mandatory first-aid training for pilots and flight engineers, (4) removing lounges in the airplanes which encourage passengers to stand and move about the cabin, (5) standardizing airport casualty support kits, and (6) airports to have staff and equipment available to assist in evacuation of persons who require hospitalization. These comments, although outside the scope of the notice concerning this amendment, may be considered in future FAA regulatory action.

Several commentators recommended increasing the quantities of certain proposed kit items, and also the number of first-aid kits required to be aboard the aircraft. Another commentator suggested that the required number of kits should be decreased on domestic flights because the aircraft would always be in a position to land before an appreciable amount of first-aid could be administered. However, the FAA believes, on the basis of data gathered from a study of turbulence accidents aboard aircraft that the number of first-aid kits and their contents proposed is appropriate for the treatment of injuries likely to occur in flight.

One comment was received questioning the quality of scissors which would be required in the first-aid kit. The FAA understands that this item is subject to pilferage. However, the bandage scissors required need not be the expensive surgical type. Any scissors that will cut the bandages included in the first-aid kit will suffice.

Several comments were received concerning the type of splints that would be required by the amendment. Some commentators recommended specifying inflatable splints, while others recommended the cardboard variety. The FAA agrees that the splint requirement should be clarified by specifying the type of splints intended to meet the proposed requirement. Therefore, the proposal has been revised in this amendment to require noninflatable splints. Consideration was given to permitting the use of inflatable splints, but tests conducted during decompression have revealed that this type of splint can be hazardous for use in airplanes due to changes in the cabin pressure.

One commentator suggested that inasmuch as an operator could at his discretion carry more than the required first-aid supplies, it should be emphasized that the list of contents in Appendix A is a minimum list only. It would appear to be generally understood that the list of contents is a minimum list, but in any event, the wording of the proposal has been revised to make this clear.

Some comments suggested that in place of 1-inch adhesive tape (standard roll) as proposed in the notice, that porous, nonallergenic tape be required. The FAA does not entirely agree. One-inch standard adhesive tape is the requirement and under the wording of this rule other varieties of adhesive tape are acceptable to meet that requirement, including the porous, nonallergenic type.

The FAA is unable to agree with certain comments which suggest that some required items, such as antiseptic swabs, ammonia inhalants, and splints should be located in a readily accessible container or drawer other than the first-aid kit. For emergency purposes it is considered more appropriate to have minimum required items kept in first-aid kits that are readily available. As stated previously, however, additional items may be carried in other locations at the discretion of the operators.

Several comments were made recommending that the required number of first-aid kits should not only be easily accessible to the cabin flight attendants, but should also be evenly distributed throughout the cabin. It was the intent of the proposal regarding Appendix A(2) to require that the kits be distributed as evenly as practicable throughout the cabin. Accordingly, for purposes of clarification, the wording of the proposal has been changed to state that the required first-aid kits must be distributed as evenly as practicable throughout the cabin and be readily accessible to the cabin flight attendants.



One comment was received stating that the amendment should not specify packing the contents in unit size, since it imposes an unnecessary and undue restriction. The FAA agrees, and the amendment has been revised to require only a total quantity of each particular item.

Interested persons have been afforded an opportunity to participate in the making of this amendment, and due consideration has been given to all matter presented.

This amendment is made under the authority of sections 313(a), 601, and 604 of the Federal Aviation Act of 1958 (49 U.S.C. 1354(a), 1421, and 1424), and section 6(c) of the Department of Transportation Act (49 U.S.C. 1655(c)).

In consideration of the foregoing, Appendix A to Part 121 of the Federal Aviation Regulations is amended, effective June 24, 1974, to read as follows:

#### Appendix A—First-Aid Kits

Approved first-aid kits required by § 121.309 must meet the following specifications and requirements:

(1) Each first-aid kit must be dust and moisture proof, and contain only materials that meet Federal Specifications GG-K-391a, as revised.

(2) Required first-aid kits must be distributed as evenly as practicable throughout the cabin and be readily accessible to the cabin flight attendants.

(3) The minimum number of first-aid kits required is set forth in the following table:

No. of passenger seats	No. of first-aid kits
0-50	1
51-150	2
151-250	3
More than 250	4

(4) Each first-aid kit must contain at least the following:

Contents	Quantity
Adhesive bandage compresses, 1-inch	16
Antiseptic swabs, 10 MM	20
Ammonia inhalants, 6 MM	10
Bandage compresses, 4-inch	8
Triangular bandage compresses, 40-inch	5
Burn compound, 1/2-ounce or an equivalent of other burn remedy	6
Arm splint, noninflatable	1
Leg splint, noninflatable	1
Roller bandage, 4-inch	4
Adhesive tape, 1-inch standard roll	2
Bandage scissors	1

Issued in Washington, D.C., on December 13, 1973.

ALEXANDER P. BUTTERFIELD,  
Administrator.

[FR Doc.73-26983 Filed 12-21-73;8:45 am]

#### Title 26—Internal Revenue

### CHAPTER I—INTERNAL REVENUE SERVICE, DEPARTMENT OF THE TREASURY

[T.D. 7298]

#### SUBCHAPTER A—INCOME TAX

### PART I—INCOME TAX; TAXABLE YEARS BEGINNING AFTER DECEMBER 31, 1953

#### SUBCHAPTER F—PROCEDURE AND ADMINISTRATION

### PART 301—PROCEDURE AND ADMINISTRATION

#### Computation of Tax by the Service

This document contains amendments to the Income Tax Regulations (26 CFR Part 1) and the Regulations on Procedure and Administration (26 CFR Part 301) in order to provide rules for the Service to compute the tax for taxable years beginning after December 31, 1972.

The regulations currently set out the rules under which the Service will compute the tax for individuals. The regulations are being amended to provide that the rules under which the Service will compute the tax shall be contained in the instructions to Forms 1040 and 1040A.

Adoption of amendments to the regulations. The Income Tax Regulations (26 CFR Part 1) and the Regulations on Procedure and Administration (26 CFR Part 301) are amended as follows:

PARAGRAPH 1. Paragraphs (a), (b), (c) (2), (c) (3), (d) (1) and (e) of § 1.6014-2 are amended to read as follows:

§ 1.6014-2 Tax not computed by taxpayer for taxable years beginning after December 31, 1969.

(a) *In general.* An individual subject to the tax imposed by section 1 of the Code may, in accordance with the instructions applicable to the income tax return to be filed, elect, for any taxable year beginning after December 31, 1969, not to show on his income tax return for such year the amount of tax due in connection with such return.

(b) *Restriction on making an election.* The election pursuant to this section shall not be made by an individual who does not file his return (or amended return) making such election on or before the date prescribed in section 6072 (a) for the filing of the original return (determined without regard to any extension of time).

(c) *Effect of election.* \* \* \* (2) Where the election provided for in this section is made by a taxpayer who takes the standard deduction and who has adjusted gross income of less than \$10,000, such election constitutes an election to pay the tax imposed by section 3.

(3) A taxpayer who makes an election under section 6014 shall not be precluded from claiming—

(i) Status as a head of household or a surviving spouse;

(ii) The credit under section 31 (relating to tax withheld on wages);

(iii) The credit under section 37 (relating to retirement income);

(iv) The credit under section 38 (relating to investment in certain depreciable property);

(v) The credit under section 39 (relating to certain uses of gasoline and lubricating oil);

(vi) The credit under section 41 (relating to contributions to candidates for public office); or

(vii) The credit under section 42 (relating to overpayments of tax).

(d) *Joint returns.* (1) A husband and wife who file a joint return may elect not to show the tax on such return in accordance with the rules prescribed in paragraphs (a) and (b) of this section.

(e) *Married individuals filing separate returns.* This section shall apply to married individuals filing separate returns unless otherwise provided in the instructions accompanying a return. The instructions may require the taxpayer to attach to his return a statement to the effect that his tax and the tax of his spouse were determined in accordance with the rules of sections 141(d) and 142(a).

PAR. 2. Paragraph (a) (2) of § 301-6402-3 is amended to read as follows:

§ 301.6402-3 Special rules applicable to income tax.

(a) \* \* \* (2) In the case of an overpayment for a taxable year of an individual for which a Form 1040 or Form 1040A has been filed, claim for refund may be made on Form 1040X ("Amended U.S. Individual Income Tax Return"). In cases to which this subparagraph applies, the taxpayer is encouraged to use Form 1040X.

Because this Treasury decision amends existing regulations by providing rules relating to administrative practice and procedure, it is found unnecessary to issue this Treasury decision with notice and public procedure thereon under 5 U.S.C. 553(b) or subject to the effective date limitation of 5 U.S.C. 553(d).

(Sec. 7805, Internal Revenue Code of 1954, 68A Stat. 917 (26 U.S.C. 7805))

[SEAL] DONALD C. ALEXANDER,  
Commissioner of Internal Revenue.

Approved: December 17, 1973.

JOHN H. HALL,  
Deputy Assistant Secretary  
of the Treasury.

[FR Doc.73-27047 Filed 12-21-73;8:45 am]



# Proposed Rules

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rulemaking prior to the adoption of the final rules.

## DEPARTMENT OF AGRICULTURE

Agricultural Stabilization and Conservation Service

[ 7 CFR 725 ]

### FLUE-CURED TOBACCO

#### Determinations on Marketing Quotas and Acreage Allotments for 1974-75 Marketing Year

Pursuant to the Agricultural Adjustment Act of 1938, as amended (7 U.S.C. 1281 et seq., herein referred to as the Act) consideration is being given to increasing or terminating the national marketing quota and acreage allotment for flue-cured tobacco for the 1974-75 marketing year.

Marketing quotas on an acreage-poundage basis for flue-cured tobacco for the 1974-75, 1975-76 and 1976-77 marketing years were duly proclaimed, and the national marketing quota for flue-cured tobacco on an acreage-poundage basis for the marketing year beginning July 1, 1974 was determined and announced as 1,179 million pounds. The quota was based upon an estimated utilization in the United States in such marketing year of 690 million pounds and exports in such marketing year of 455 million pounds, with an upward adjustment of 34 million pounds determined to be desirable for the purpose of maintaining an adequate supply (38 FR 18233).

Notice was given of a referendum to be held on July 17, 1973 to determine whether the farmers voting favored or opposed the establishment of marketing quotas for the three marketing years beginning July 1, 1974, July 1, 1975, and July 1, 1976 (38 FR 18254). In the referendum, 98.5 percent of the farmers voting favored quotas for a period of three years beginning July 1, 1974 (38 FR 23935).

Section 371 of the Act provides, in part, as follows: "(b) If the Secretary has reason to believe that, because of a national emergency or because of a material increase in export demand, any national marketing quota or acreage allotment for cotton, rice, peanuts or tobacco should be increased or terminated, he shall cause an immediate investigation to be made to determine whether the increase or termination is necessary to meet such emergency or increase in export demand. If, on the basis of such investigation, the Secretary finds that such increase or termination is necessary, he shall immediately proclaim such finding (and if he finds an increase is necessary, the amount of the increase

found by him to be necessary) and thereupon such quota or allotment shall be increased, or shall terminate as the case may be, (7 U.S.C. 1371(b))."

When the quota for the 1974-75 marketing year was determined, exports during the 1972-73 marketing year were estimated at 490 million pounds, farm-weight, based on the latest statistics then available. However, exports during May and June, 1973 were 75.6 million pounds, 20 percent above the same months a year earlier. As a result, exports during the marketing year ending June 30 reached 519 million pounds, 6 percent above the estimate used at the time the 1974 crop quota was determined.

Exports have continued strong during the first 4 months of the current marketing year (July-October), and totaled 188 million pounds, 10 percent above the corresponding months of last year. Reports from trade sources indicate that cigarette production in foreign countries is increasing by about 4 percent annually. The available world supply of high quality flue-cured tobacco has become relatively tight.

Consideration will be given to data, views and recommendations as to whether the national marketing quota and acreage allotment for flue-cured tobacco for the 1974-75 marketing year should be increased or terminated and if increased, the amount of such increase, and data and views submitted by purchasers of tobacco with respect to the capacity of processing facilities to handle the increased weekly marketings which would be expected if the marketing quota and acreage allotment were increased. Submissions should be transmitted in writing to the Director, Tobacco and Peanut Division, Agricultural Stabilization and Conservation Service, United States Department of Agriculture, Washington, D.C. 20250. All submissions made pursuant to the notice will be made available for public inspection from 8:15 a.m. to 4:45 p.m., Monday through Friday in room 6741, South Building, 14th and Independence Avenue, SW., Washington, D.C. All submissions must, in order to be sure of consideration, be postmarked not later than January 10, 1974.

Signed at Washington, D.C. on: December 18, 1973.

KENNETH E. FRICK,  
Administrator, Agricultural Stabilization and Conservation Service.

[FR Doc.73-27079 Filed 12-20-73;10:52 am]

## DEPARTMENT OF LABOR

Occupational Safety and Health Administration

[ 29 CFR Parts 1910, 1926 ]

### GROUND FAULT CIRCUIT PROTECTION Supplement to Notice of Public Hearing

On December 10, 1973 a notice of public hearing was published in the FEDERAL REGISTER (38 FR 33983). This notice requests comments on the requirement of the last paragraph of section 210-7 of the National Electrical Code (NFPA, No. 70-1971; ANSI, C-1) and also provides an opportunity for a public hearing. The last paragraph of section 210-7 reads as follows:

All 15- and 20-ampere receptacle outlets on single-phase circuits for construction sites shall have approved ground-fault circuit protection for personnel. This requirement shall become effective on January 1, 1974.

The purpose of this notice is to supplement the December 10, 1973 notice by listing the issues of this last paragraph which will be subject to comments and addressed at the public hearing.

Accordingly, the following items of the last paragraph of section 210-7 of the National Electrical Code are listed as subject to written data, views and arguments:

- (1) Voltage level of "all 15- and 20-ampere receptacles"
- (2) Clarification of "construction sites"
- (3) Clarification of "ground-fault circuit protection for personnel."
- (4) Trip level of approved ground-fault circuit protection for personnel.

(Sec. 6(b), Pub. L. 91-596, 84 Stat. 1600 (29 U.S.C. 657); Sec. 107, Pub. L. 91-54, 83 Stat. 96 (40 U.S.C. 333); 5 U.S.C. 552; Secretary of Labor's Order No. 12-71, 36 FR 8754)

Signed at Washington, D.C. this 18th day of December 1973.

JOHN STENDER,  
Assistant Secretary of Labor.

[FR Doc.73-27028 Filed 12-21-73;8:45 am]

## DEPARTMENT OF TRANSPORTATION

Coast Guard

[ 46 CFR Part 64 ]

[CGD 73-172]

### PORTABLE TANKS

Notice of Proposed Rule Making  
Correction

In F.R. Doc. 73-25760 appearing at page 33494 in the issue for Wednesday,



December 5, 1973, in the listing under § 64.27(b), lines 5, 6, and 7, should read as follows:

Maximum allowable working pressure  
(-----) psig at 122° F.—

## FEDERAL RESERVE SYSTEM

[Regs. D, Q]

[12 CFR Parts 204, 217]

### RESERVES OF MEMBER BANKS, PAYMENT OF INTEREST ON DEPOSITS

#### Due Bills as Deposits

The Board of Governors proposes to amend Regulations D and Q to classify as "deposits", and thereby extend reserve requirements and interest rate limitations to funds received by member banks through the issuance of due bills that are uncollateralized. Such treatment would apply to due bills issued in connection with sales of securities where the securities purchased are not delivered to the purchaser at the time of payment, whether such funds are received from another bank or other customers and regardless of the method by which such transaction is evidenced or recorded—whether by issuance of an instrument, oral undertaking or understanding, record notation or other manner. The 1966 amendments to Regulations D and Q included due bills issued by a member bank principally as a means of obtaining funds to be used in its banking business within the definition of "deposits". Funds received in exchange for due bills issued in connection with a "genuine" securities transaction with respect to which the bank is not in a position to make same-day delivery against payment, however, are not now classified as a deposit under Regulations D and Q. The substantial increase in the use of due bills since adoption of the 1966 amendments evidences an apparent need to apply a clearer standard to due bill transactions and to insure that when used as a means of obtaining funds, funds so obtained are subject to the reserve and interest rate provisions of Regulations D and Q.

The proposed amendments would not apply reserve requirements and interest rate limitations to due bill transactions that are fully secured by securities similar to those that are the subject of the due bill transaction and thereby would establish a presumption in Regulations D and Q that uncollateralized due bills are issued principally for the purpose of obtaining funds for the issuing bank.

To aid in the consideration of the matter by the Board, interested persons are invited to submit relevant data, views, and arguments. Any such material

should be submitted in writing to the Secretary of the Board of Governors of the Federal Reserve System, Washington, D.C. 20551, to be received not later than January 18, 1974. Such materials will be made available for inspection and copying upon request, except as provided in § 261.6(a) of the Board's rules regarding availability of information.

To implement its proposal, the Board proposes to amend §§ 204.1(f) of Regulation D (12 CFR part 204) and 217.1(f) of Regulation Q (12 CFR 217) by adding a new sentence at the end thereof to read as follows:

\* \* \* Notwithstanding the foregoing, the term 'deposit' includes any liability or undertaking on the part of a member bank to sell or deliver securities to or purchase securities for the account of any customer, involving the receipt of funds by the member bank or a debit to an account of such customer before the securities are delivered, unless such liability or undertaking is fully secured by collateral consisting of securities similar to and with an aggregate market value at least equal to that of the securities which are the subject of the member bank's liability or undertaking.

By order of the Board of Governors,  
December 13, 1973.

[SEAL]

CHESTER B. FELDBERG,  
Secretary of the Board.

[FR Doc.73-27044 Filed 12-21-73;8:45 am]

[12 CFR Part 225]

### BANK HOLDING COMPANIES

#### Application To Engage in the Underwriting of Bankers Blanket Bond Insurance (Deductible Portion Only); and Possible Rule Making With Respect Thereto

The Board of Governors has received the following application filed pursuant to section 4(c)(8) of the Bank Holding Company Act (12 U.S.C. 1843(c)(8)) and § 225.4(b)(2) of the Board's Regulation Y (12 CFR 225.4(b)(2)) for prior approval to acquire shares of a company which will engage de novo in underwriting the deductible portion of bankers blanket bond insurance:

The Chase Manhattan Corporation, New York, New York, has applied for permission to acquire voting shares of Chase Manhattan Captive Insurance Co., Denver, Colorado.

Applicant states that the proposed subsidiary would engage in the activity of underwriting insurance for itself and certain of its affiliates against risks arising out of infidelity of employees, burglary, robbery, larceny or mysterious disappearance of property from premises or in transit, forgery, alteration or counterfeit and other insurance of the type af-

forded by the bankers blanket bond to major banking institutions in the United States. Applicant further states that the proposed underwriting activities would be limited to insuring the deductible portion of the bankers blanket bond, i.e., that portion of the risk which is not presently insured.

The Board has not heretofore considered whether the proposed activities are closely related to banking. Applicant is of the opinion that the proposed underwriting activities are so closely related to banking or managing or controlling banks as to be a proper incident thereto and notice of receipt of the application is being published pursuant to § 225.4(a) of the Board's Regulation Y.

In connection with this application, the Board will also consider possible rule-making to add the proposed activity to the list of activities the Board has previously determined to be closely related to banking.

Interested persons are invited to express their views on the question of whether the underwriting of the deductible portion of bankers blanket bond insurance is so closely related to banking or managing or controlling banks as to be a proper incident thereto. Interested persons are invited to express their views on the question of whether consummation of the subject proposal can "reasonably be expected to produce benefits to the public, such as greater convenience, increased competition, or gains in efficiency, that outweigh possible adverse effects, such as undue concentration of resources, decreased or unfair competition, conflicts of interests, or unsound banking practices." Any request for a hearing on this question, or on the issue of whether the underwriting of the deductible portion of bankers blanket bond insurance is so closely related to banking or managing or controlling banks as to be a proper incident thereto should be accompanied by a statement summarizing the evidence the person requesting the hearing proposes to submit or to elicit at the hearing and a statement of the reasons why this matter should not be resolved without a hearing.

The application may be inspected at the offices of the Board of Governors or at the Federal Reserve Bank of New York.

Any views or requests for hearing should be submitted in writing and received by the Secretary, Board of Governors of the Federal Reserve System, Washington, D.C. 20551, not later than January 25, 1974.

By order of the Board of Governors,  
effective December 18, 1973.

[SEAL]

CHESTER B. FELDBERG,  
Secretary of the Board.

[FR Doc.73-27045 Filed 12-21-73;8:45 am]



# Notices

This section of the FEDERAL REGISTER contains documents other than rules or proposed rules that are applicable to the public. Notices of hearings and investigations, committee meetings, agency decisions and rulings, delegations of authority, filing of petitions and applications and agency statements of organization and functions are examples of documents appearing in this section.

## DEPARTMENT OF DEFENSE

### Office of the Secretary of Defense DEPARTMENT OF DEFENSE WAGE COMMITTEE

#### Notice of Closed Meetings

Pursuant to the provisions of section 10 of Pub. Law 92-463, effective January 5, 1973, notice is hereby given that meetings of the Department of Defense Wage Committee will be held on:

Tuesday, January 8, 1974  
Tuesday, January 15, 1974  
Tuesday, January 22, 1974  
Tuesday, January 29, 1974

These meetings will convene at 9:45 a.m. and will be held in Room 1E-801, The Pentagon, Washington, D.C.

The Committee's primary responsibility is to consider and make recommendations to the Assistant Secretary of Defense (Manpower and Reserve Affairs) on all matters involved in the development and authorization of wage schedules for Federal prevailing rate employees pursuant to Pub. Law 92-392.

At these scheduled meetings, the Committee will consider wage survey specifications, wage survey data, local reports and recommendations, statistical analyses and proposed pay schedules derived therefrom.

Under the provisions of section 10(d) of Pub. Law 92-463 and 5 U.S.C. 532(b) and (4), the Assistant Secretary of Defense (Manpower and Reserve Affairs) has determined that these meetings will be closed to the public.

However, members of the public who may wish to do so, are invited to submit material in writing to the Chairman concerning matters felt to be deserving of the Committee's attention. Additional information concerning these meetings may be obtained by contacting the Chairman, Department of Defense Wage Committee, Room 3D-281, The Pentagon, Washington, D.C.

MAURICE W. ROCHE,  
Director, Correspondence  
and Directives, OSAD(C).

DECEMBER 19, 1973.

[FR Doc.73-27024 Filed 12-21-73;8:45 am]

## DEPARTMENT OF AGRICULTURE

### Agricultural Marketing Service GRAIN STANDARDS

#### Revocation of Warsaw, Va. Inspection Point

Notice is hereby given pursuant to §26.99 of the regulations (7 CFR 26.99) under the U.S. Grain Standards Act (7 U.S.C. 71 et seq.) that on November 1,

1973, there was published in the FEDERAL REGISTER (38 FR 30116) a notice announcing a request by the Commonwealth of Virginia Department of Agriculture and Commerce, Richmond, Virginia, that its assignment at Warsaw, Virginia, as a designated inspection point be revoked. The request was made because of the low volume of inspection work at Warsaw, Virginia. Interested persons were given until December 3, 1973, to submit written views and comments with respect to the proposed revocation.

No comments were received with respect to the November 1, 1973, notice in the FEDERAL REGISTER. Therefore the assignment of Warsaw, Virginia, as a designated inspection point is revoked without prejudice to the Commonwealth of Virginia Department of Agriculture and Commerce.

(Sec. 7, 39 Stat. 482, as amended 82 Stat. 764; 7 U.S.C. 79(f); 37 FR 28464 and 28476.)

**Effective Date.** This notice shall become effective December 31, 1973.

Done in Washington, D.C., on December 18, 1973.

E. L. PETERSON,  
Administrator,

Agricultural Marketing Service.

[FR Doc.73-27011 Filed 12-21-73;8:45 am]

## DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

### Office of Education EDUCATIONAL BROADCASTING FACILITIES PROGRAM

#### Proposed Closing Date for Receipt of Applications

Pursuant to the authority contained in part IV of title III of the Communications Act of 1934, as amended (47 U.S.C. 390-399) and 45 CFR Part 60, the Commissioner of Education, with the approval of the Secretary of Health, Education, and Welfare, hereby proposes to establish a closing date for receipt of applications and priorities to govern educational broadcasting facilities grants for fiscal year 1974.

Pursuant to 45 CFR 60.12, the Commissioner of Education is authorized to establish and announce cutoff dates for the filing of applications for assistance under the Act for the construction of noncommercial educational television and radio facilities when he deems it necessary for the efficient administration of the program. Under this authority, the Commissioner has determined that it is necessary to establish a cutoff date for

the receipt of such applications for fiscal year 1974 funds.

With a view toward promoting equitable distribution of Federal grants and otherwise promoting the efficient administration of the program, the proposed rule also sets forth policies and procedures to be observed in the submission and review of applications for fiscal year 1974 grants.

The proposed rule contains substantive changes from fiscal years 1972 and 1973. (36 FR 21296 (November 6, 1971); 37 FR 21945 (October 17, 1972).) The first priority category is designated for state-of-the-art equipment and expansion of power for existing stations. Establishment of new stations is placed in the second priority category. The third and fourth priority categories remain the same.

Interested persons are invited to submit written comments, suggestions, or objections regarding the proposed rule to the Educational Broadcasting Facilities Program, U.S. Office of Education, 400 Maryland Avenue, SW., Code 525, Washington, D.C. 20202, on or before January 25, 1974.

Comments received in response to this notice will be available for public inspection at the Office of the Director, Educational Broadcasting Facilities Program, U.S. Office of Education, Room 406 Reporters Building, 300 Seventh Street, SW., Washington, D.C. between 8 a.m. and 4:30 p.m., Monday through Friday.

(Catalog of Federal Domestic Assistance Program No. 13.413, Educational Broadcasting Facilities (Public Broadcasting))

Dated: December 11, 1973.

JOHN OTTINA,  
U.S. Commissioner of Education.

Approved: December 18, 1973.

CASPAR W. WEINBERGER,  
Secretary of Health,  
Education, and Welfare.

#### Sec.

1. Scope.
2. Closing date.
3. Project summary.
4. Complete applications; operating budget.
5. Limit on applications.
6. FCC and FAA filing.
7. Prior grantees.
8. Funding emphases.
9. Awards schedule.
10. Further information.

**AUTHORITY:** Part IV of title III of the Communications Act of 1934, as amended (47 U.S.C. 390-399); 45 CFR Part 60.

#### Section I. Scope.

This temporary rule establishes a closing date for receipt of applications and priorities and procedures to govern educational broadcasting facilities grants for fiscal year 1974 awarded under Part IV



of Title III of the Communications Act of 1934, as amended (47 U.S.C. 390-99) and 45 CFR Part 60 (47 U.S.C. 390, 392 (d), 394; 45 CFR 60.1).

#### Sec. 2. Closing date.

In order to be assured of consideration applications must be received by the U.S. Office of Education Application Control Center, Room 5673, Regional Office Building Three, 7th and D Streets, SW., Washington D.C. 20202 (mailing address: U.S. Office of Education, Application Control Center, 400 Maryland Avenue, SW., Washington, D.C. 20202), on or before January 30, 1974.

An application sent by mail will be considered to be received on time by the Application Control Center if:

(1) The application was sent by registered or certified mail not later than the fifth calendar day prior to the closing date (or if such fifth calendar day is a Saturday, Sunday, or Federal holiday, not later than the next following day), as evidenced by the U.S. Postal Service postmark on the wrapper or envelope, or on the original receipt from the U.S. Postal Service; or

(2) The application is received on or before the closing date by either the Department of Health, Education, and Welfare, or the U.S. Office of Education mail rooms in Washington, D.C. (In establishing the date of receipt, the Commissioner will rely on the time-date stamp of such mail rooms or other documentary evidence of receipt maintained by the Department of Health, Education, and Welfare, or the U.S. Office of Education.)

In order for any pending application to receive consideration for Fiscal Year 1974 funding, applicants must submit a statement to that effect by the established closing date to the Director, Educational Broadcasting Facilities Program, U.S. Office of Education, Washington, D.C. 20202.

Applicants wishing to amend their application to add new exhibits or addenda which do not change the amount of the Federal assistance requested may submit them directly to the Director, Educational Broadcasting Facilities Program.

Applicants wishing to amend their original submission to increase or decrease the amount of the Federal assistance requested must submit such amendments to the U.S. Office of Education, Application Control Center, 400 Maryland Avenue SW., Washington, D.C. 20202.

#### Sec. 3. Project summary.

Applicants will be required to prepare a project summary of the application summarizing essential data and the project justification. (47 U.S.C. 392(a), 45 CFR 60.5).

#### Sec. 4. Complete applications; operating budget.

Only complete or substantially complete applications filed on or before the closing date will be accepted for filing. It is emphasized that an application must contain information with respect to the proposed operating budget of the

applicant, since particular stress in evaluation will be placed upon the adequacy of such budget to provide program services on a scale consistent with the purposes of the Act and regulations. (47 U.S.C. 392(a); 45 CFR 60.5, 60.8, 60.9(e)(3)).

#### Sec. 5. Limit on applications.

Only one application in radio and one in television by any single applicant in a single State (other than a State radio or television agency which may be permitted to file additional applications upon approval of the Commissioner) will be accepted for filing. Applicants may by the closing date withdraw a pending application and replace it with a new application. Applicants with more than one application on file must indicate by the closing date which application or applications are to be withdrawn. (47 U.S.C. 392(d); 45 CFR 60.12).

#### Sec. 6. FCC and FAA filing.

Applicants whose projects require filing for operational authority with the FCC (and the FAA) are urged to recognize and resolve problems related to such authorization as soon as possible. Applications with problems relating to FAA and/or FCC approval which cannot be resolved within a reasonable period of time following the cut-off date established in section 2 will be subject to deferral until the following fiscal year. (45 CFR 60.6).

#### Sec. 7. Prior grantees.

Applicants who have received grant awards in a given fiscal year may file applications under the foregoing provisions in the next fiscal year. However, in determining grant awards among competitive applications having the same priority, the lapse of time between grant awards to an applicant may be taken into account. (47 U.S.C. 392(d), 394).

#### Sec. 8. Funding emphases.

In order to provide adequately for required expansion and improvement of individual stations within the national television system, it is anticipated that the largest portion of television funds will be used for expansion and improvement projects. In radio, the initial funding emphasis will be on the activation of new stations and the expansion of existing low powered stations where substantial audiences remain unserved. In the light of this program emphasis, priorities which are set forth in Appendix A will be assigned to applications, in accordance with the provisions of Appendix B. (47 U.S.C. 392(d), 394; 45 CFR 60.12(a)(2), 60.13).

#### Sec. 9. Awards schedule.

In order to allow for evaluation and priority interrelation of new applications with those which are pending, at least two-thirds (67 percent) of the appropriation will not be obligated until after the submission deadline. (45 CFR 60.12).

#### Sec. 10. Further information.

Further information with respect to the Educational Broadcasting Facilities

Program including program bulletins and application forms and instructions (for pending as well as for new applications) may be obtained from the Director, Educational Broadcasting Facilities Program, U.S. Office of Education, 400 Maryland Avenue SW., Washington, DC 20202. (47 U.S.C. 390-99; 45 CFR 60.1-60.22).

#### APPENDIX A—PROJECT PRIORITIES

In evaluation of applications the Educational Broadcasting Facilities Program will consider the criteria in 45 CFR 60.13. Subject to these criteria, projects will be funded in the order of the priorities and sub-priorities listed below, except as provided in the limitations described in paragraphs 3, 4, and 5 of Appendix B.

##### PRIORITY I

A. Projects to provide stations with first state-of-the-art reproduction capability. This refers to color capability of a videotape recorder and film chain, stereo capability of an audio turntable and tape recorder and other associated radio or television apparatus.

B. Projects to provide local stations with first state-of-the-art "live" production capability (i.e., first studio color cameras, stereo apparatus) where this need can be justified by proven production requirements to meet identified community needs.

C. Projects to acquire transmitter/antenna apparatus necessary to increase power or otherwise extend station coverage where the in-state population to be served increases substantially, or which are necessary to provide improved signal (including color, SCA, or stereo signals) for larger population groupings, and provide comparability with commercial station coverage.

D. Projects to acquire apparatus for the interconnection of stations in a State network (or a particular geographical region across State lines) where applicant ownership or interconnection facilities can be fully justified as advantageous in comparison with leasing of interconnection services.

##### PRIORITY II

A. Proposals to activate new stations in areas currently without a public broadcasting station with appropriate local or State license, to serve populations of 500,000 or more. Proposals to activate the first broadcasting station in a State.

B. Proposals to activate new stations in areas currently without a public broadcasting station under appropriate local or State license, to serve populations between 250,000 and 500,000.

C. Projects to provide production capability for stations providing program services beyond their local requirements for distribution over national, regional, and statewide interconnection. (To qualify in this category, a project justification must be verified by production commitment from recognized national, regional, or State network program clients supporting such production need, the applicant must demonstrate the inability of presently owned apparatus to meet production requirements, and the apparatus requested may not exceed the reasonable requirements of the verified production commitments.)

D. Projects to acquire transmitter/antenna apparatus necessary to increase power or otherwise extend or improve station coverage where the increase in population does not justify inclusion in Category IC.

##### PRIORITY III

A. Projects to activate new stations in areas currently without a public broadcasting



station under appropriate local or State license where population to be served is less than 250,000.

B. Projects to augment production and reproduction capabilities of local stations beyond the basic or initial capability. Such proposals will require documentation of local live production requirements in excess of existing capability.

#### PRIORITY IV

A. Projects to activate second (or more) public broadcasting stations in areas already served by such a station under appropriate local or State license.

B. Projects to equip auxiliary studios at other than the main studio.

(47 U.S.C. 392(d), 394; 45 CFR 60.12)

#### APPENDIX B—ASSIGNMENT OF PRIORITIES TO APPLICATIONS

1. Upon receipt of application (or amendment to a pending application), it will be accorded the priority of the lowest component in the project.

For example, an application to secure the stations first color VTR's (Priority IA) and to relocate a new, more powerful transmitter which significantly increases the audience (Priority IC), and also requests matching funds for the 5th and 6th color cameras (Priority IIIB) would be assigned a priority of IIIB.

2. To avoid low priority rating, applicants should limit their requests to apparatus to meet their most immediate needs at the priority level which in their judgement will qualify within limitations of available funds in relation to the national backlog of needs for equipment.

3. To the extent permitted by categorical allowances, projects will be funded in the order of listed priorities.

Proportions of total available funds to be awarded in the various priority categories will be determined, with the counsel of national advisors, after the total requests are known following cut-off date for submission of applications. It will be an administrative objective to achieve a fair distribution of funds over the major priority categories consistent with the pattern of needs reflected in the FY 1974 applications.

4. Where projects have identical priorities, preference will be given to those having the earlier date of filing, with reasonable allowance for the relative population groupings being served.

5. The order of funding according to the priority structure may be affected by consideration of geographical equity or the State maximum limitation.

(47 U.S.C. 392 (b) and (d), 394).

[FR Doc. 73-27027 Filed 12-21-73; 8:45 am]

## ATOMIC ENERGY COMMISSION

[Docket No. 50-293]

### BOSTON EDISON CO.

#### Pilgrim Nuclear Power Station;

#### Determination and Order

On October 15, 1973, the Union of Concerned Scientists and the New England Coalition on Nuclear Pollution filed with the Commission a "Joint Petition for Immediate and Indefinite Shutdown of Vermont Yankee Nuclear Power Station and Pilgrim Nuclear Power Station" (the petition). In substance, the petition alleged that defects in fuel channel walls have been observed in the Vermont Yankee reactor and in the KKM reactor

in Europe; that the observed defects in Vermont Yankee and KKM are similar and appear to be associated with a design feature common to those reactors and the Pilgrim facility; and that the safety questions posed by these defects are such that neither Vermont Yankee nor Pilgrim should be permitted to operate pending further evaluation. By Order dated October 23, 1973, the Commission, after noting that "[m]aterials on file in the Commission's Public Document Room show that the regulatory staff was aware of the problem, was reviewing it, and was taking action prior to receipt of the petition", treated the petition as a request for the issuance of an order to show cause pursuant to 10 CFR 2.202 and instructed the Director of Regulation to determine whether further action, including any shutdown, is appropriate as an emergency matter; to announce that determination, together with supporting reasons, on or before October 26, 1973 and publish it in the FEDERAL REGISTER as soon as possible thereafter; to provide, in the same notice, for the submission of views by licensees and any interested persons within fifteen (15) days following publication of the notice; and, after receipt of such views, to make a determination, together with supporting reasons, as to whether further actions or proceedings are warranted.

On October 26, 1973, the Director of Regulation, in compliance with the Commission's Order of October 23, 1973, issued a "Determination With Respect to Need for Emergency Action, Notice of Consideration of Need for Further Actions or Proceedings, and Request for Submission of Views". In that Determination, which was published in the FEDERAL REGISTER on October 31, 1973 (38 FR 30048), the Director of Regulation noted that there was reasonable assurance that Pilgrim could be operated without endangering the health and safety of the public while the matter raised by the petition is under consideration by the Director of Regulation. By letter to the Boston Edison Company dated October 16, 1973, the AEC regulatory staff had approved operation of the facility for a limited period of about sixty (60) days subject to stringent, 50 percent reductions in core flow and core power. Based on the experience of KKM and Vermont Yankee and the results of certain tests conducted by the General Electric Company (GE) and reviewed by the staff, the Director of Regulation concluded that, with respect to operation under steady-state and anticipated transient conditions, any loss of thermal-hydraulic margin due to channel box damage would be greatly exceeded by offsetting gains in margin attributable to the core flow and power limitations now in effect; that, with respect to anticipated transient and postulated accident conditions, the peak clad temperature would be acceptably low, and that accident loads would not so deform the channel boxes as to interfere with actions necessary to protect the core; and that, in addition, such interim operation would result in no fuel failure and little or no increase in the limited channel box

damage which is assumed to have already occurred. The Determination also invited the views of licensees and any interested persons not later than November 15, 1973.

The reasons supporting the Director of Regulation's determination in regard to the need for a shutdown order or other emergency action were set forth in detail in a Safety Evaluation by the Directorate of Licensing, United States Atomic Energy Commission, which was issued and made available to the public on October 26, 1973. As noted therein, the damage to the channel boxes in KKM and Vermont Yankee was found to be caused by vibration of the temporary control curtains due to the high velocity flow of coolant exiting from bypass flow holes in the core support plate. That flow impinged on the control curtain blade and caused the entire curtain to vibrate. Because of the vibrations, the stainless steel curtain stiffener contacted the channel box and caused wear and fretting of the Zircaloy channel. Because of the similarity in design of the KKM, Vermont Yankee, and Pilgrim reactors, similar damage was presumed to exist in Pilgrim.

In response to the October 26 determination, statements of views were received, relevant to Pilgrim, from the licensee and from the Union of Concerned Scientists and the New England Coalition on Nuclear Pollution (petitioners). The AEC regulatory staff also received a letter from Mrs. Lawrence Hufnagle, a resident of Plymouth, expressing concern over the potential for an accident.

The licensee's views are set forth in three letters, two dated November 14, 1973 and one dated November 30, 1973. The November 14 submission included the results of analyses requested in the staff's letter of October 16 and a proposal to continue to operate Pilgrim Station (with a limitation of 50 percent design flow) for a minimum of 159 additional days from October 5, 1973. The November 30 letter modified that proposal by requesting authorization to continue operation of the Pilgrim Station at 50 percent power and flow until January 11, 1974.

The licensee's comment that "Pilgrim's operation at 50 percent of its rated power and flow does not create a potentially hazardous condition nor does the prescribed continued operation constitute a violation of the Act, Commission regulations or terms and provisions of the facility operation license" conforms to the position presented in the staff's October 26 Safety Evaluation. However, the licensee's proposal to continue to operate Pilgrim for a significantly longer period than that contemplated in the October 26 Safety Evaluation is not adequately supported by new technical information.

The petitioners contend "that Pilgrim cannot establish that it is in compliance with the Technical Specification limit on MCHFR [minimum critical heat flux ratio]." This assertion is not correct. The Technical Specifications limit core flow and power, not MCHFR, since MCHFR is not a directly measurable



quantity. Furthermore, the October 26 Safety Evaluation provided a qualitative analysis which demonstrated that operation at 50 percent power and flow even with damaged channel boxes would result in calculated values of MCHFR much larger than 1.0. This analysis has been confirmed by the results of calculations submitted in the appendices to the licensee's letter of November 14, 1973, which show that MCHFR during steady-state operation or abnormal operational transients will be greater than 4.0. The staff comment quoted by the petitioners, that "a loose piece of Zircaloy would have at worst a highly localized effect on MCHFR" does not demonstrate noncompliance with the Technical Specifications, but provides further assurance that unexpected continued damage to the channels would not result in loss of clad integrity.

The petitioners also contend that the staff has deviated from a previous staff position by using a computer code which has not been approved in the Commission's Interim Acceptance Criteria for Emergency Core Cooling Systems and by considering a "mere temperature limit." The staff calculated the peak clad temperatures in an extremely conservative manner using the MOXY code. The staff's confidence in its calculation was based on the degree of conservatism in the assumptions used and the fact that previous comparisons between MOXY and the GE code have shown nearly identical results. The purpose of this staff calculation was to support the staff judgment that a calculation using the approved GE evaluation model would result in calculated temperatures below 2300°F. The licensee's calculations using the approved GE evaluation model, submitted in the appendices to the licensee's November 14 letters, confirm the staff's conclusion made on the basis of its independent calculations.

The maximum peak cladding temperature criterion of the Interim Acceptance Criteria implicitly includes consideration of time-at-temperature and clad thickness. The channel box damage presumed to exist in the Pilgrim facility would not cause significant changes in the length of the transient following a postulated loss of coolant accident. Furthermore, inspection of the Vermont Yankee and KKM cores showed no wear, and, therefore, no decrease in clad thickness on the fuel in assemblies with damaged channels. On this basis, it is reasonable to use the time-at-temperature and clad thickness values previously considered and found acceptable for the Pilgrim core.

The petitioners assert that the staff has provided "no detailed support for its highly optimistic assumptions" regarding crack propagation. In the October 26 Safety Evaluation the staff relied both on the accumulated operating history for the three reactors and on the observation of crack propagation in the Vermont Yankee and KKM cores. Both Vermont Yankee and KKM had operated with four times the pressure differential across the channel box present in the Pilgrim core operating at 50 percent

of rated power and flow. The staff judged the resulting margin to be large and the possibility of crack propagation small, but recognized the need for detailed stress analyses. As indicated in the appendices to the licensee's November 14 letters, such analyses have been performed and they confirm the conservatism of the staff's prior judgment.

The petitioners state that "no adequate explanation is given for allowing Pilgrim to operate if Vermont Yankee is required to remain shutdown longer than the original six weeks for fuel rod replacement and off-gas-modifications." However, the petitioners do not take into account the differing status of the two reactors at the time the October 26 Determination was made. At that time, Vermont Yankee was shutdown for reasons unrelated to channel box damage. The licensee of Vermont Yankee had decided to take advantage of its previously scheduled shutdown to repair the channel box damage and correct the cause thereof, and had represented to the staff that the facility would remain shutdown until these changes had been made. Pilgrim, on the other hand, was not shutdown. For the reasons set forth in the October 26 Safety Evaluation, the staff concluded that, subject to certain stringent conditions, operation of Pilgrim could continue for a limited period of time without endangering the public health and safety.

The petitioners also fault the use of "the KKM and Vermont Yankee experience to justify continued operation of Pilgrim" since the "possible effects of channel wall cracks depend on several variables." However, the staff had, in its October 26 Safety Evaluation, carefully considered the variables, including the configuration of the cracks observed; the operating history of the reactor; the flow and pressure conditions inside and outside the channel during normal operation, transients and accidents; and the configuration, dimensions and mass of the channel and control curtains. The staff had also considered the results of the tests in the GE bypass flow mock-up facility which served to confirm and quantify the observations at KKM and Vermont Yankee. The staff judgment, therefore, was based on an understanding of the mechanism causing the damage, the significant variables that can affect this mechanism, and a comparison of these variables in Vermont Yankee, KKM and Pilgrim.

It should be noted that further assurance of unhindered control rod movement is provided by two other considerations discussed in the October 26 Safety Evaluation. First, regular exercising of control rods will reveal any interference between the rods and channels and provide a means of monitoring control rod movement. Second, the plant is being operated so that control rods in the potentially damaged regions are always inserted at least 3 feet into the core, well beyond the position of the expected channel box damage.

In summary, no information has been submitted that would warrant modification of the October 26 Determination.

Accordingly, the Director of Regulation has determined pursuant to the Atomic Energy Act of 1954, as amended, and the regulations in 10 CFR Part 2 and 50, that the public health and safety requires, and it is hereby ordered, that: The licensee, not later than during the week commencing December 23, 1973, shut down the Pilgrim Nuclear Power Station and maintain that facility in a safe shutdown condition pending a finding by the Directorate of Licensing that any channel box damage in the facility has been repaired and the cause of any such damage corrected.

The licensee may, within twenty (20) days of receipt of this Determination and Order or on or before January 25, 1974, whichever is later, file a request for a hearing and may also file a written answer under oath or affirmation. On or before January 25, 1974, any other person whose interest is affected may file a petition for leave to intervene. Requests for a hearing and petitions for leave to intervene shall be filed in accordance with the Commission's "Rules of Practice" in 10 CFR Part 2. The filing of any such request for hearing or petition for leave to intervene shall not, however, stay the effectiveness of the order set forth above.

If a hearing is requested, the Commission will issue an order designating the time and place for a hearing. The issue to be considered at any such hearing shall be: whether the public health and safety requires that the Pilgrim Nuclear Power Station be shut down and maintained in a safe shutdown condition pending a finding by the Directorate of Licensing that any channel box damage in the facility has been repaired and the cause of any such damage corrected.

Copies of (1) the October 26, 1973 Determination, (2) the October 26, 1973 Safety Evaluation, and (3) the views submitted by licensee and interested persons in response to the Director of Regulation's Determination of October 26, 1973 are being made available for public inspection at the Commission's Public Document Room, 1717 H Street, NW., Washington, D.C. and at the Plymouth Public Library, North Street, Plymouth, Massachusetts.

Dated at Bethesda, Maryland, this 17th day of December, 1973.

L. MANNING MUNTZING.

[FR Doc.73-27006 Filed 12-21-73; 8:45 am]

# **CIVIL SERVICE COMMISSION FEDERAL PREVAILING RATE ADVISORY COMMITTEE**

## **Notice of Meetings**

Pursuant to the provisions of section 10 of Public Law 92-463, effective January 5, 1973, notice is hereby given that meetings of the Federal Prevailing Rate Advisory Committee will be held on:

Thursday, January 17, 1974  
Thursday, January 24, 1974  
Thursday, January 31, 1974

The meetings will convene at 10 a.m. and will be held in Room 5A06A, Civil



Service Commission Building, 1900 E Street, NW., Washington, D.C.

The committee's primary responsibility is to study the prevailing rate system and from time to time advise the Civil Service Commission thereon.

At these scheduled meetings, the committee will consider proposed plans for implementation of Public Law 92-392, which law establishes pay systems for Federal prevailing rate employees.

The meetings will be closed to the public under a determination to do so, made under the provisions of section 10(d) of Public Law 92-463.

However, members of the public who wish to do so, are invited to submit material in writing to the Chairman concerning matters felt to be deserving of the committee's attention. Additional information concerning these meetings may be obtained by contacting the Chairman, Federal Prevailing Rate Advisory Committee, Room 5451, 1900 E Street, NW., Washington, D.C.

DAVID T. ROADLEY,  
Chairman, Federal Prevailing  
Rate Advisory Committee.

DECEMBER 19, 1973.

[FR Doc.73-27050 Filed 12-21-73;8:45 am]

## FEDERAL RESERVE SYSTEM

### FEDERAL OPEN MARKET COMMITTEE

#### Domestic Policy Directive of September 18, 1973

In accordance with § 271.5 of its rules regarding availability of information, there is set forth below the Committee's Domestic Policy Directive issued at its meeting held on September 18, 1973.<sup>1</sup>

The information reviewed at this meeting suggests that growth in real output of goods and services, which slowed in the second quarter from the exceptionally rapid pace of the two preceding quarters, will be moderate in the third quarter. Although nonfarm employment rose sharply in August, the average gain in recent months has been smaller than earlier and the unemployment rate has changed little at a level somewhat below 5 percent. The exceptionally rapid advance in prices was interrupted in July by the temporary freeze imposed in mid-June. However, farm and food prices surged after mid-July—when the freeze was lifted on most such products—and despite later appreciable declines, they remained far above pre-freeze levels. The U.S. merchandise trade balance improved further in July, and net foreign purchases of U.S. stocks increased. In recent weeks exchange rates for the dollar against most foreign currencies have changed little on balance after strengthening in the first half of August, and the balance of payments has been in surplus on an official settlements basis.

<sup>1</sup> The Record of Policy Actions of the Committee for the meeting of September 18, 1973, is filed as part of the original document. Copies are available on request to the Board of Governors of the Federal Reserve System, Washington, D.C. 20551.

The narrowly defined money stock, which had increased moderately in July, declined somewhat in August. The more broadly defined money stock continued to expand as a result of net inflows at banks of consumer-type time deposits. Nonbank thrift institutions experienced net deposit outflows in the July-August period. Expansion in bank credit has continued at a substantial pace. On September 7 the Federal Reserve announced an increase from 8 to 11 percent in marginal reserve requirements on large-denomination CD's. Interest rates on long-term market securities declined from early August to early September, partly because of growing expectations that the maximum degree of monetary restraint had been reached. Later, however, such expectations weakened and some long-term rates turned up. Short-term rates generally remained under upward pressure in recent weeks.

In light of the foregoing developments, it is the policy of the Federal Open Market Committee to foster financial conditions conducive to abatement of inflationary pressures, a sustainable rate of advance in economic activity, and continued progress toward equilibrium in the country's balance of payments.

To implement this policy, while taking account of international and domestic financial market developments, the Committee seeks to achieve bank reserve and money market conditions consistent with moderate growth in monetary aggregates over the months ahead.

By order of the Federal Open Market Committee, December 17, 1973.

ARTHUR L. BROIDA,  
Secretary.

[FR Doc.73-27038 Filed 12-21-73;8:45 am]

## INTERIM COMPLIANCE PANEL (COAL MINE HEALTH AND SAFETY)

### PHIL STROUTH COAL CO. ET AL.

Applications for Initial Permits; Electric Face Equipment Standard; Opportunity for Public Hearing

Applications for Initial Permits for Noncompliance with the Electric Face Equipment Standard have been received for items of equipment in the underground coal mines listed below.

- (1) ICP Docket No. 4041-000, PHIL STROUTH COAL COMPANY, Mine No. 2, Mine ID No. 44 02124 0, Wise, Virginia.
- (2) ICP Docket No. 4042-000, SEALS COAL COMPANY, Mine No. 8, Mine ID No. 15 00661 0, Cranks, Kentucky.
- (3) ICP Docket No. 4043-000, MEDIUM SECURITY PRISON, Sewell "A" Mine, Mine ID No. 46 01123 0, Huttonsville, West Virginia.

In accordance with the provisions of section 305(a)(2) (30 U.S.C. 865(a)(2)) of the Federal Coal Mine Health and Safety Act of 1969 (83 Stat. 742, et. seq., Pub. Law 91-173), notice is hereby given that requests for public hearing as to an application for an initial permit may be filed on or before January 10, 1974. Requests for public hearing must be filed in accordance with 30 CFR Part 505 (35 FR 11296, July 15, 1970, as

amended, copies of which may be obtained from the Panel upon request.

A copy of each application is available for inspection and requests for public hearing may be filed in the office of the Correspondence Control Officer, Interim Compliance Panel, Room 800, 1730 K Street, NW., Washington, D.C. 20006.

GEORGE A. HORNBECK,  
Chairman,  
Interim Compliance Panel.

DECEMBER 17, 1973.

[FR Doc.73-26987 Filed 12-21-73;8:45 am]

## DEPARTMENT OF THE INTERIOR

### Bureau of Land Management

#### OUTER CONTINENTAL SHELF OFFSHORE TEXAS

#### Notice of Availability of Draft Environmental Impact Statement and of Public Hearing

Pursuant to section 102(2)(C) of the National Environmental Policy Act of 1969, the Department of the Interior has prepared a draft environmental impact statement relating to a possible Outer Continental Shelf general oil and gas lease sale of 245 tracts of submerged lands on the Outer Continental Shelf in the Gulf of Mexico offshore Texas.

Single copies of the draft environmental statement can be obtained from the Office of the Manager, Gulf of Mexico Outer Continental Shelf Office, Bureau of Land Management, Suite 3200, The Plaza Tower, 1001 Howard Avenue, New Orleans, Louisiana 70113, and from the Office of Information, Bureau of Land Management (130), Washington, D.C. 20240. Additional copies may be obtained by writing the National Technical Information Service, Department of Commerce, Springfield, Virginia 22151.

Copies of the draft environmental statement will also be available for public review in the main public libraries in the following cities: Port Arthur, Houston, Galveston, and Freeport, Texas.

A composite map of the area of the Gulf of Mexico offshore Texas, upon which tracts being considered for leasing have been depicted and a listing of these tracts may also be obtained from either the Bureau of Land Management's Gulf of Mexico Outer Continental Shelf Office or the Office of Information, Bureau of Land Management at the above listed addresses.

In accordance with 43 CFR 3301.4, a public hearing will be held beginning at 9:00 a.m. on January 30, 1974, in the Terrace Room, Rice Hotel, Main and Texas, Houston, Texas 77052, for the purpose of receiving comments and suggestions relating to the possible lease sale. If necessary the hearing will extend through January 31.

The hearing will provide the Secretary with additional information from both the public and private sectors to help evaluate fully the potential effects of the possible offering of the 245 tracts on the



total environment, aquatic resources, aesthetics, recreation and other resources in the entire area during the exploration, development and operation phases of the leasing program.

The hearing will also provide the Secretary, under section 102(2)(C) of the National Environmental Policy Act of 1969, with the opportunity to receive additional comments and views of interested State and local agencies.

Interested individuals, representatives of organizations and public officials wishing to testify at the hearing are requested to contact the Manager, Gulf of Mexico Outer Continental Shelf Office, Bureau of Land Management, at the above listed address by 4:15 p.m., January 25, 1974. Written comments by those unable to attend hearing should be addressed to the Director (Attn: 732), Bureau of Land Management, U.S. Department of the Interior, Washington, D.C. 20240. The Department will accept written testimony and comments on the draft environmental statement until February 10, 1974. This should allow ample time for those unable to testify at the hearing to make their views known and for the submission of supplemental materials by those presenting oral testimony. Time limitations make it necessary to limit the length of oral presentations to ten minutes. An oral statement may be supplemented, however, by a more complete written statement which may be submitted to the hearing officer at the time of presentation of the oral statement. Written statements presented in person at the hearing will be considered for inclusion in the hearing record. To the extent that time is available after presentation of oral statements by those who have given advance notice, the hearing officer will give others present an opportunity to be heard.

After all testimony and comments have been received and analyzed a final

environmental statement will be prepared.

ED HASTY,  
Acting Associate Director.

Approved: December 21, 1973.

WILLIAM A. VOGELY,  
Acting Deputy Assistant,  
Secretary of the Interior.

[FR Doc.73-27153 Filed 12-21-73; 10:55 am]

#### Bureau of Reclamation

[INT FES 73-72]

#### AUTHORIZED INITIAL STAGE OF OAHE UNIT, SOUTH DAKOTA

##### Availability of Final Environmental Statement

Pursuant to section 102(2)(c) of the National Environmental Policy Act of 1969, the Department of the Interior has prepared a final environmental statement for the authorized Initial Stage of Oahe Unit, South Dakota.

The environmental statement concerns proposed construction and operation of the unit for the purposes of irrigation, municipal water supply, fish and wildlife enhancement, recreation, and flood control.

Copies are available for inspection at the following locations:

- Office of Communications, Room 7220, Department of the Interior, Washington, D.C. 20240, Telephone (202) 343-9247.
- Office of Assistant to the Commissioner—Ecology, Room 7620, Bureau of Reclamation, Department of the Interior, Washington, D.C. 20240, Telephone (202) 343-4991.
- Division of Engineering Support, Technical Services Branch, E&R Center, Denver Federal Center, Denver, Colorado 80225, Telephone (303) 234-3007.
- Office of the Regional Director, Bureau of Reclamation, P.O. Box 2553, Billings, Montana 59103, Telephone (406) 245-6711.
- Missouri-Oahe Projects Office, Bureau of Reclamation, P.O. Box 825, Huron, South Dakota 57350, Telephone (605) 352-8651.

Single copies of the final environmental statement may be obtained on request to the Commissioner of Reclamation or the Regional Director. In addition, copies may be purchased from the National Technical Information Service,

Department of Commerce, Springfield, Virginia 22151. Please refer to the statement number above.

Dated: December 17, 1973.

WILLIAM A. VOGELY,  
Acting Deputy Assistant,  
Secretary of the Interior.

[FR Doc.73-27002 Filed 12-21-73; 8:45 am]

#### Office of the Secretary

[INT FES 73-71]

#### HUNGRY HORSE CLOUD SEEDING PROGRAM

##### Availability of Final Environmental Statement

Pursuant to section 102(2)(C) of the National Environmental Policy Act, the Department of Interior has prepared a Final Environmental Statement for the Proposed Hungry Horse Cloud Seeding Program.

The Environmental Statement considers the consequences of cloud seeding for additional precipitation in the Flathead River Basin in Flathead County, Montana, during the period December 1973 through April 1974.

Copies are available for inspection at the following locations:

- Office of Communications, Room 7200, Department of the Interior, Washington, D.C. 20240.
- Bonneville Power Administration, Room 5600, Department of the Interior, Washington, D.C. 20240.
- Bonneville Power Administration, 1002 NE Holladay Street, Portland, Oregon 97232.
- Bonneville Power Administration, Kalispell District Office, 5 miles east of Kalispell on Highway 2, Kalispell, Montana 59901.
- State Clearinghouse, Montana Department of Planning and Economic Development, 1424 Ninth Avenue, Helena, Montana 59601.
- Flathead County Free Library, 37 First Street West, Kalispell, Montana 59901.

Copies may be obtained by writing the Bonneville Power Administration, Environmental Office—SJ, P.O. Box 3621, Portland, Oregon 97208. Please refer to the statement number above.

Dated: December 17, 1973.

WILLIAM A. VOGELY,  
Acting Deputy Assistant.

[FR Doc.73-27001 Filed 12-21-73; 8:45 am]



## CUMULATIVE LIST OF PARTS AFFECTED—DECEMBER

The following numerical guide is a list of parts of each title of the Code of Federal Regulations affected by documents published to date during December.

3 CFR	Page	7 CFR—Continued	Page	10 CFR	Page
<b>PROCLAMATIONS:</b>		234	34315	30	33969
4256	34101	238	34188	31	33969, 34110
4257	34723	245	34315	32	34110
<b>EXECUTIVE ORDERS:</b>		250	33965	40	33970
10480 (Suspended in part by E.O. 11748)	33575	401	34453	70	33970
11132 (Revoked by E.O. 11753)	34983	600	34642	150	33970
11148 (See E.O. 11753)	34983	601	34642		
11507 (Superseded by E.O. 11752)	34793	630	34644		
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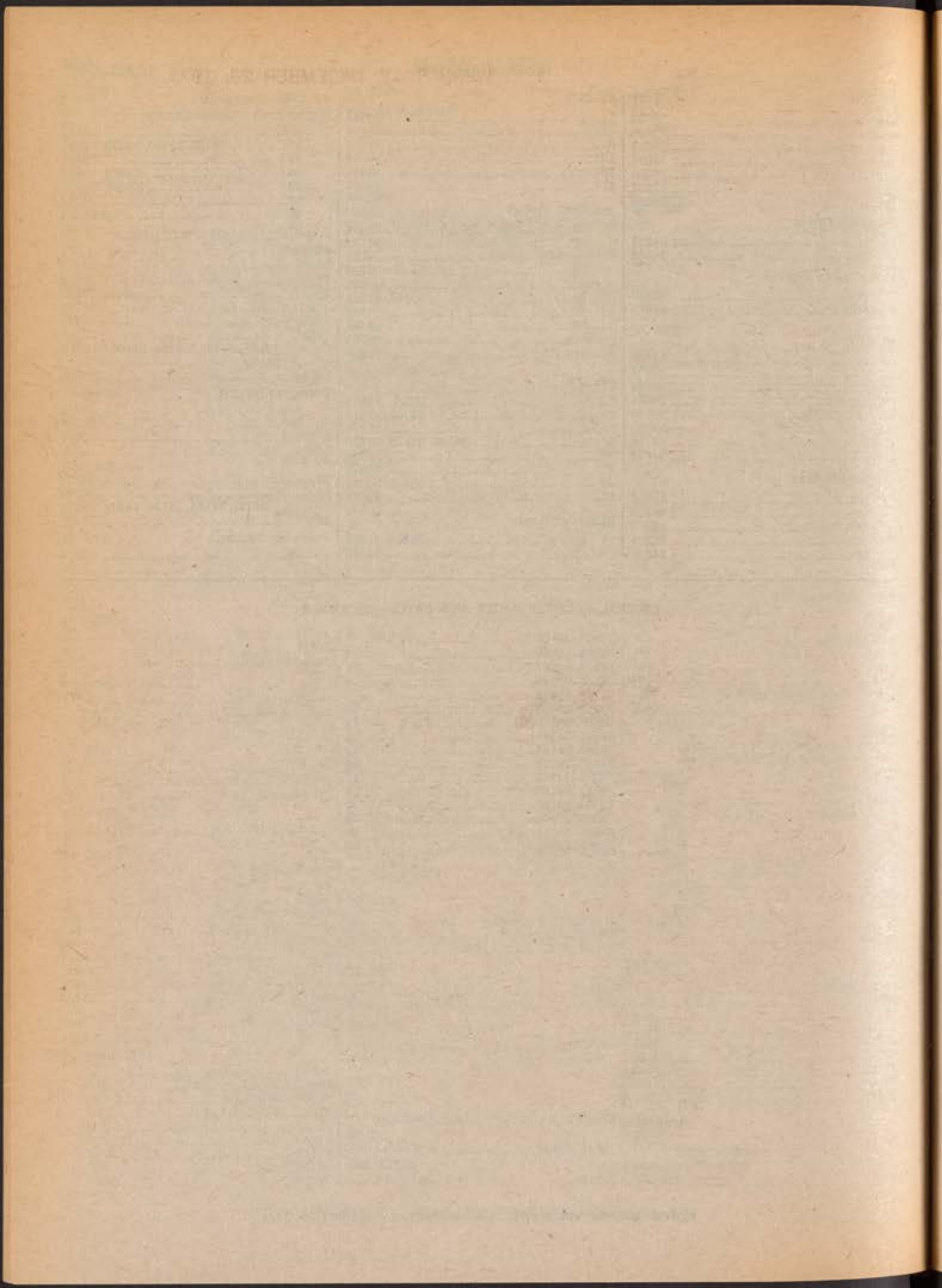


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PART II



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## **ENVIRONMENTAL PROTECTION AGENCY**



### **SOAP AND DETERGENT MANUFACTURING POINT SOURCE CATEGORY**

**Proposed Effluent Limitation Guidelines  
and New Source Standards**



# ENVIRONMENTAL PROTECTION AGENCY

[ 40 CFR Part 417 ]

## SOAP AND DETERGENT MANUFACTURING POINT SOURCE CATEGORY

### Effluent Limitations Guidelines

Notice is hereby given that effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources set forth in tentative form below are proposed by the Environmental Protection Agency (EPA) for the soap manufacturing by batch kettle subcategory (Subpart A), the fatty acid manufacturing by fat splitting subcategory (Subpart B), the soap manufacturing by fatty acid neutralization subcategory (Subpart C), the glycerine concentration subcategory (Subpart D), the glycerine distillation subcategory (Subpart E), the manufacture of soap flakes and powders subcategory (Subpart F), the manufacture of bar soaps subcategory (Subpart G), the manufacture of liquid soaps subcategory (Subpart H), the oleum sulfonation and sulfation subcategory (Subpart I), the air-SO<sub>3</sub> sulfonation and sulfonation subcategory (Subpart J), the SO<sub>3</sub> solvent and vacuum sulfonation subcategory (Subpart K), the sulfamic acid sulfonation subcategory (Subpart L), the chlorosulfonic acid sulfonation subcategory (Subpart M), the neutralization of sulfuric acid esters and sulfonic acids subcategory (Subpart N), the manufacture of spray dried detergents subcategory (Subpart O), the manufacture of liquid detergents subcategory (Subpart P), the detergent manufacturing by dry blending subcategory (Subpart Q), the manufacture of drum dried detergents subcategory (Subpart R), and the manufacture of detergent bars and cakes subcategory (Subpart S), of the soap and detergent manufacturing category of point sources pursuant to the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251, 1311, 1314 (b) and (c), 1316(b) and 1317(c); 86 Stat. 816 et seq.; P.L. 92-500) (the "Act").

### LEGAL AUTHORITY

(1) *Existing point sources.* Section 301(b) of the Act requires the achievement by not later than July 1, 1977, of effluent limitations for point sources, other than publicly owned treatment works, which require the application of the best practicable control technology currently available as defined by the Administrator pursuant to section 304(b) of the Act. Section 301(b) also requires the achievement by not later than July 1, 1983, of effluent limitations for point sources, other than publicly owned treatment works, which require the application of best available technology economically achievable which will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants, as deter-

mined in accordance with regulations issued by the Administrator pursuant to section 304(b) to the Act.

Section 304(b) of the Act requires the Administrator to publish regulations providing guidelines for effluent limitations setting forth the degree of effluent reduction attainable through the application of the best practicable control technology currently available and the degree of effluent reduction attainable through the application of the best control measures and practices achievable including treatment techniques, process and procedure innovations, operating methods and other alternatives. The regulations proposed herein set forth effluent limitations guidelines, pursuant to section 304(b) of the Act, for the soap and detergent manufacturing category.

(2) *New sources.* Section 306 of the Act requires the achievement by new sources of a Federal standard of performance providing for the control of the discharge of pollutants which reflects the greatest degree of effluent reduction which the Administrator determines to be achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants.

Section 306(b)(1)(B) of the Act requires the Administrator to propose regulations establishing Federal standards of performance for categories of new sources included in a list published pursuant to section 306(b)(1)(A) of the Act. The Administrator published in the FEDERAL REGISTER of January 16, 1973, (38 FR 1624) a list of 27 source categories, including the soap and detergent manufacturing category. The regulations proposed herein set forth the standards of performance applicable to new sources for the soap and detergent manufacturing category.

Section 307(c) of the Act requires the Administrator to promulgate pretreatment standards for new sources at the same time that standards of performance for new sources are promulgated pursuant to section 306. Sections 417.15, 417.25, 417.35, 417.45, 417.55, 417.65, 417.75, 417.85, 417.95, 417.105, 417.115, 417.125, 417.135, 417.145, 417.155, 417.165, 417.175, 417.185 and 417.195 proposed below provide pretreatment standards for new sources within the soap and detergent manufacturing category.

Section 304(c) of the Act requires the Administrator to issue to the States and appropriate water pollution control agencies information on the processes, procedures or operating methods which result in the elimination or reduction of the discharge of pollutants to implement standards of performance under Section 306 of the Act. The Development Document referred to below provides, pursuant to section 304(c) of the Act, information on such processes, procedures or operating methods.

## SUMMARY AND BASIS OF PROPOSED EFFLUENT LIMITATIONS GUIDELINES FOR EXISTING SOURCES AND STANDARDS OF PERFORMANCE AND PRETREATMENT STANDARDS FOR NEW SOURCES

(1) *General methodology.* The effluent limitations guidelines and standards of performance proposed herein were developed in the following manner. The point source category was first studied for the purpose of determining whether separate limitations and standards are appropriate for different segments within the category. This analysis included a determination of whether differences in raw material used, product produced, manufacturing process employed, age, size, waste water constituents and other factors require development of separate limitations and standards for different segments of the point source category. The raw waste characteristics for each such segment were then identified. This included an analysis of (1) the source, flow and volume of water used in the process employed and the sources of waste and waste waters in the operation, and (2) the constituents of all waste water. The constituents of the waste waters which should be subject to effluent limitations guidelines and standards of performance were identified.

The control and treatment technologies existing within each segment were identified. This included an identification of each distinct control and treatment technology, including both in-plant and end-of-process technologies, which are existent or capable of being designed for each segment. It also included an identification of, in terms of the amount of constituents and the chemical, physical, and biological characteristics of pollutants, the effluent level resulting from the application of each of the technologies. The problems, limitations and reliability of each treatment and control technology were also identified. In addition, the non-water-quality environmental impact, such as the effects of the application of such technologies upon other pollution problems, including air, solid waste, noise and radiation, was identified. The energy requirements of each control and treatment technology were determined as well as the cost of the application of such technologies.

The information, as outlined above, was then evaluated in order to determine what levels of technology constitute the "best practicable control technology currently available," the "best available technology economically achievable" and the "best available demonstrated control technology, processes, operating methods, or other alternatives." In identifying such technologies, various factors were considered. These included the total cost of application of technology in relation to the effluent reduction benefits to be achieved from such application, the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes,



non-water-quality environmental impact (including energy requirements) and other factors.

The data upon which the above analysis was performed included EPA permit applications, EPA sampling and inspections, consultant reports, and industry submissions.

The pretreatment standards proposed herein are intended to be complementary to the pretreatment standards proposed for existing sources under 40 CFR Part 128. The basis for such standards is set forth in the FEDERAL REGISTER of July 19, 1973, 38 FR 19236. The provisions of Part 128 are equally applicable to sources which would constitute "new sources," under section 306 if they were to discharge pollutants directly to navigable waters, except for § 128.133. That section provides a pretreatment standard for "incompatible pollutants" which requires application of the "best practicable control technology currently available," subject to an adjustment for amounts of pollutants removed by the publicly owned treatment works. Since the pretreatment standards proposed herein apply to new sources, §§ 417.15, 417.25, 417.35, 417.45, 417.55, 417.65, 417.75, 417.85, 417.95, 417.105, 417.115, 417.125, 417.135, 417.145, 417.155, 417.165, 417.175, 417.185 and 417.195 below amend § 128.133 to require application of the standard of performance for new sources rather than the "best practicable" standard applicable to existing sources under sections 301 and 304(b) of the Act.

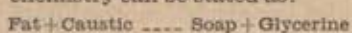
(2) Summary of conclusions with respect to the soap and detergent manufacturing category of point sources.

(i) **Categorization.** For purposes of studying the industry and developing effluent limitations guidelines for existing sources and standards of performance, the soap and detergent industry has been divided into nineteen discrete subcategories based on raw materials input, process employed and finished products manufactured. The subcategories also reflect differences in waste waters produced and appropriate control technologies. The subcategories cover: (a) Two paths for production of the intermediate neat soap (60-70 percent soap in water), one entailing a single subcategory (soap manufacturing by batch kettle) and the other encompassing two (fatty acid manufacturing by fat splitting and soap manufacturing by fatty acid neutralization); (b) recovery of by-product glycerine from kettle boiling and fat splitting, encompassing two subcategories (glycerine concentration and glycerine distillation); (c) three methods production of sulfuric acid esters and sulfonic acids (surfactant intermediates); (d) one subcategory for neutralization of sulfuric acid esters and sulfonic acids to produce finished surfactants for inclusion in detergents; and (f) four subcategories encompassing the methods of producing finished and marketable detergents.

(1) **Subpart A—Soap Manufacturing by Batch Kettle Subcategory:** The chemistry of soap making is simple. However,

its physical chemistry is complex and will be explored to some extent in the discussion of bar soaps.

The fundamental reaction of soap chemistry can be stated as:



Fats and oils used in soap making are of both animal and vegetable origin. Such animal-derived sources as tallow are most common. Of the vegetable oils, coconut, palm, and tall are the most popular.

Experience has shown that the optimum range of carbon chain length of fatty acids used in soap manufacture ranges from 12 to 18. As a curiosity of nature, the acids occur naturally only in even numbers of carbon atoms in the fats used commercially.

Most of the soap made by this process finds its way into toilet bar form for household usage. This use demands freedom from offensive odors and displeasing colors. In order to meet this requirement, the starting fats and oils must be refined. There is a direct relationship between quality of the fats and the quality of the finished soap.

(a) **Fat Refining and Bleaching.** There are several ways in which fats are refined. One of the most frequently used methods employs activated clay as the extraction agent. Activated clay, having a large ratio of surface area to weight, is agitated with warm oil and filtered. Color bodies, dirt, etc., are removed, usually through a plate and frame press. The clay is disposed of as solid waste. A small amount of clay remains in the refined fat.

The clay is often "activated" by being given an acid treatment itself by the clay supplier and is a source of sulfate ion built-up in some soap recycling streams.

Other ways in which fats are refined include caustic extraction, steam stripping and proprietary aqueous chemicals.

When soap accounted for the major portion of the soap and detergent market the Soloxol process of extraction found use in refining of fats and oils. The design of this liquid propane extraction process is based on the diminishing solubility of fats in liquid propane with increasing temperature. The fats are completely miscible at 48.84°C (120°F) but become almost insoluble at 82°C (180°F) and most of the color bodies precipitate.

Color bodies fall to the bottom of the treating tower while decolorized oils dissolved in liquid propane sit on the solvent (liquid propane) layer and are recovered from the top. This process is not now used in the United States, but should be reexamined since it offers a way to eliminate water use and thus could again become economical as discharges must be reduced.

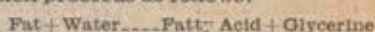
(b) **Soap Boiling:** Although a very old process, kettle boiling still makes a very satisfactory product and in several well integrated manufacturing plants this process has a very low discharge of waste water effluents.

Making a batch of neat soap (65-70 percent soap in water) can take as long as four to six days to complete. A series of large steel tanks are used in a counter current manner to "boil" soap. Their capacity can be as high as 54,480 kg (120,000 lb) of ingredients. Ever weakening caustic streams are met by enriched fat so that the caustic is essentially exhausted in the presence of fresh fat. In actual practice the fat never leaves the tank in which it starts until it is converted into neat soap. Just the aqueous caustic stream flows from tank to tank.

The waste water from kettle boiling is essentially from the nigre stream. The nigre is the aqueous layer which contains the color bodies generated in the soap-making process, mostly dark soaps. They are often marketed as industrial lubricants or low grade special purpose soaps. Where such a market can be established a kettle boil soap process is already at the zero discharge effluent level except for the oil refining step.

(c) **Salt Usage:** In order to maintain suitable solubility for proper processing, salt is added to the soap making process to maintain the required electrolytic balance. Most of the salt charged into the process is ultimately returned to it from the glycerine concentration step, which will be discussed later. Practically every kettle boiling soap manufacturer concentrates his glycerine stream although only a few go on to the distillation of glycerine.

(2) **Subpart B—Fatty Acid Manufacturing by Fat Splitting.** By means of fat splitting very low grade fats and oils are upgraded to high value products by splitting the glycerides into their two components, fatty acids and glycerine. Fat splitting is a hydrolytic reaction which proceeds as follows:



Using a Twitchell catalyst (an aromatic sulfonic acid) and a long residence time, fats can be split at nearly atmospheric pressures. Today, however, most fat splitting takes place in a high pressure, high temperature tower operated at around 34 atm (500 psig) and a temperature of 260°C (500°F).

Heated fat, 254°C (490°F) and under pressure, is fed into the bottom of the tower and water, 204°C (400°F) and also under pressure, is fed into the top.

The two streams mix counter-currently and hydrolysis takes place, often in the presence of a zinc or tin catalyst. At the high temperatures employed the fat is soluble to the extent of 12-25 percent of water, depending upon which fat is used.

In about 90 minutes the splitting can be as high as 99 percent complete. The glycerine by-product can be produced at a variety of concentrations depending upon how complete a fat hydrolysis is desired. More concentrated glycerine can be provided at some expense of fatty acid yields.



The crude acids are flashed in a pressure reducer and then distilled at 0.025-0.035 atm pressure. The resulting product often is subjected to a flash hydrogenation to reduce the amount of linoleic and linolenic acids.

(3) Subpart C—Soap Manufacturing by Fatty Acid Neutralization Subcategory: Soap making by fatty acid neutralization exceeds the kettle boil process in speed and minimization of waste water effluent. It is widely used by the large soap producers and also very popular with the smaller manufacturers.

This route from the acids is faster, simpler (no by-product dilute glycerine stream to handle) and "cleaner" than the kettle boil process. Distilled, partially hydrogenated acids are usually used.

The fatty acid neutralization process has several additional advantages over the kettle boiling process. It does not have a large salt load to recycle, and has a free alkali concentration in the order of 0.1-0.2 percent, contrasted with around 1 percent measured as Na<sub>2</sub>O in the kettle boiling process.

The reaction that takes place is substantially:

Caustic + Fatty Acid → Soap

Often, sodium carbonate is used in place of caustic with the attendant evolution of carbon dioxide. When liquid soaps (at room temperature) are desired, the more soluble potassium soaps are made by starting with potassium hydroxide. The potassium soaps are used in the familiar liquid hand soap dispensers, in many industrial applications and often as lubricants.

As in kettle boiling soap manufacture, the most popular mix of acids for bar soap is 20 percent coconut oil and 80 percent tallow oil derived acids. A number of distilled tall oil soaps (tall oil is derived from the waste streams of paper manufacture) are also made for industrial purposes.

In some cases, the soap making process is operated continuously in tandem with a fat splitting process. The fatty acids and caustic solution are proportioned into a reactor continuously by pumps having a common variable speed drive. The appropriate amount of salt is also programmed in to maintain the correct electrolyte content.

The resulting neat soap will have about 30 percent moisture and around 0.5 percent salt.

To clarify the soap solution, the soap stream coming out of the reactor is sometimes filtered with clay. The spent clay creates a certain amount of solid waste and the filter press is washed out occasionally. Otherwise this is a "clean" process.

The neat soap is further processed into bars or liquid formulations in the same manner as the product from kettle boiling.

(4) Subpart D—Glycerine Concentration Subcategory: The kettle boiling soap process generates an aqueous stream referred to as sweet water lyes.

This stream will contain 8-10 percent glycerine, a heavy salt concentration and some fatty materials. It is processed by first adding a mineral acid (HCl) to reduce the alkalinity. This is followed by the addition of alum which precipitates insoluble aluminum soaps. The precipitate carries other impurities down with it. If the stream were not treated with alum, there would be severe foaming in the evaporators, and the contaminant would be carried forward into the glycerine. The cleaned glycerine solution is sent to the evaporators.

The evaporators (in some smaller plants there will be only one) are heated under reduced pressure. The partial vacuum is generated by a barometric condenser. They frequently operate at 0.15-0.07 atm (26-28 in Hg vacuum).

As the glycerine is concentrated the salt comes out of solution and is removed from the evaporation kettle, filtered and returned to the soap making process. In many plants this separating function is performed continuously with a centrifuge with the filtrate being returned to the evaporator.

The glycerine is usually concentrated to 80 percent by weight and then either run to a still to be made into finished glycerine, or stored and sold to glycerine refiners.

The barometric condenser used in concentrating will be slightly rich in BOD<sub>5</sub> due to the carryover of glycerine.

(5) Subpart E—Glycerine Distillation Subcategory: The concentrated glycerine (80 percent) is run into a still which, under reduced pressure, yields a finished product of 98+ percent purity. Here again a barometric condenser is used to create the partial vacuum.

At room temperature, the still bottoms (also called glycerine foots) are a glassy dark brown amorphous solid rather rich in salt. Water is mixed with the still bottoms and run into the waste water stream. This particular stream is very rich in BOD<sub>5</sub>, and readily biodegradable. Many alternative methods of disposal, including incineration, have been evaluated, but the general practice of the industry is disposal in a waste water stream.

The other waste water stream, the barometric condenser water, will also contribute to the total BOD<sub>5</sub> and COD loads caused by the glycerine foots.

The sweet water glycerine from fat splitting is flashed to atmospheric pressure thereby releasing a considerable amount of water very quickly. This can provide a glycerine stream going to the evaporators of 20 percent glycerine or more. Since there is no salt used in fat splitting there will be none in the sweet water.

Some glycerine refining is done by passing the dilute stream over ion exchange resin beds, both cationic and anionic, and then evaporating it to 98+ percent glycerine content as a bottoms product. This method is suitable where there are copious quantities of water available and energy costs are very high.

In the backwash of the ion exchange process the organic suspended solids are stripped from the system. The regeneration cycle of both types of beds will add a significant dissolved solids load to the waste water system.

There are frequently three sets, in series, of both cation and anion exchange resins used in this process. Each step is designed to reduce the input load by 90 percent. Some of the fat splitting plants are equipped with this type of unit.

(6) Subpart F—Manufacture of Soap Flakes and Powders Subcategory: Neat soap, previously defined, may or may not be blended with other products before flaking or powdering. Neat soap is sometimes filtered to remove gel particles and run into a crutcher for mixing with builders.

After thorough mixing, the finished formulation is run into a flaker. This unit normally consists of a two roll "mill" having two steel rolls. The small upper one is steam heated while the larger lower one is chilled. The soap solidifies on the lower one and is slit into ribbons at it sheets off the roller.

The ribbons are fed into a continuous oven heated by hot air. The emerging flakes contain 1 percent moisture. As all of the evaporated moisture goes to the atmosphere, there is no waste water effluent.

In spray drying, crutched, heated soap solution is sprayed into a spray tower, or flash dried by heating the soap solution under pressure and releasing the steam in the spray drier under reduced pressure. In either case the final soap particle has a high ratio of surface area to unit of weight, which makes it readily dissolvable in water.

Some operations will include a scrap soap reboil to reclaim soap. The soap reboil is salted out for soap recovery and the salt water is recycled. After frequent recycling the salt water becomes so contaminated that it must be discharged to the sewer.

Occasional washdown of the crutcher may be needed. The tower is usually cleaned down dry. There is also some gland water which flows over the pump shaft picking up any minor leaks. This will contribute a very small, but finite, effluent loading.

(7) Subpart G—Manufacture of Bar Soaps Subcategory: The procedure for bar soap manufacture will vary significantly from plant to plant, depending upon the particular clientele served. The following description typifies bar soap manufacture.

In some processes additives are mixed with the neat soap in a crutcher before any drying takes place. Another approach is to begin the drying process with the hot neat soap going to an "atmospheric" flash dryer followed by a vacuum drying operation in which the vacuum is drawn by a barometric condenser. Soap is then double extruded into short ribbons or curls and sent to plodders for further blending or physical processing. At this point the soap will normally have 8-14 percent moisture



depending upon the previous course of processing.

Next, a milling operation affords the opportunity to blend in additives as well as to modify the physical properties of the soap. This operation has much more significance than just achieving uniformity in the mixing of further added ingredients. The physical chemistry of soap is fairly complex. Unless a bar of soap is almost predominately left in the Beta phase, as distinct from the Omega phase, long range solubility, warping resistance, and lathering properties are poor. Rapid chilling of the soap puts it predominately into the Omega phase but successive milling steps bring it back into Beta phase; hence the importance of milling.

The mill consists of two polished rolls rotating at different speeds to maximize the shearing forces. After milling, the soap is cut into ribbons and sent to the plodder.

The plodder operates much like a sausage grinder. It thus extrudes and cuts the soap into small chips, followed by further mixing in which all of the individual pieces are melted together into a homogenous mass. The plodder is often operated under reduced air pressure so that any occluded air is removed in the blending process. It has a powerful screw that forces the soap through minute holes in a perforated plate.

Plodding completed, the soap is extruded continuously in a cylindrical form, cut to size, molded into the desired form, and wrapped for shipment. Most of the scrap in this operation is returned to the plodder.

At times there will be soap scrap which has become too dry to process properly in the plodder and it must be returned to earlier steps in the soap making process.

The amount of water used in bar soap manufacture varies greatly. In many cases the entire bar soap processing operation is done without generating a waste water stream. The equipment is all cleaned dry without any washups. In other cases, due to housekeeping requirements associated with the particular bar soap process, there are one or more waste water streams from air scrubbers.

Since we are dealing with a consumer product with very distinct (and important to the consumer) esthetic properties, all of these processes can claim significance and essential character in the making of a particular bar.

Occupying a very minor position in the soap market, a bar made from cold frame soap may be found. After the saponification reaction, this soap is poured directly from the reactor into molds. Upon cooling and the completion of saponification, the molded soap is cut into bars. The entire operation is carried out without the generation of any waste water.

(8) Subpart H—Manufacture of Liquid Soaps Subcategory. Neat soap (often the potassium soap of fatty acids) is blended in a mixing tank with other ingredients such as alcohols or glycols to produce a

product, or with pine oil and kerosene for a product with greater solvency and versatility. The final blended product may be, and often is, filtered to achieve a sparkling clarity before being drummed.

In making liquid soap, water is used to wash out the filter press and other equipment. Waste water effluent is minimal.

(9) Subpart I—Oleum Sulfonation and Sulfonation Subcategory. One of the most important active ingredients of detergents is the alcohol sulfate or alkyl benzene sulfonate—and particularly those products made via the oleum route.

In most cases the sulfonation/sulfation is carried out continuously in a reactor where the oleum (a solution of sulfur trioxide in sulfuric acid) is brought into intimate contact with the hydrocarbon or alcohol. Reaction is rapid. The stream is then mixed with water and sent to a settler.

Prior to the addition of water the stream is a homogeneous liquid. With the addition of water, two phases develop and separate. The dilute sulfuric acid is drawn off and usually returned to an oleum manufacturer for reprocessing up to the original strength. The sulfonated/sulfated material is sent on to be neutralized with caustic.

This process is normally operated continuously and performs indefinitely without need for periodic clean out. Pump glands occasionally leak. Anticipating this problem, a stream of water is normally played over pump shafts to pick up such a leak if it occurs, as well as to cool the pump. The flow of waste water from this source is quite modest but continual.

(10) Subpart J—Air-So<sub>3</sub> Sulfation and Sulfonation Subcategory. This process for surfactant manufacture has numerous unique advantages and is used extensively. In the oleum sulfonation of alcohols, formation of water stops the reaction short of completion because it reaches a state of equilibrium, resulting in low yields.

With SO<sub>3</sub> sulfation, no water is generated, hydrolysis cannot occur and the reaction proceeds in one direction only.

The absence of water in the SO<sub>3</sub> reaction is of a lesser importance in sulfonation. What is particularly troublesome in the use of oleum for alcohol sulfation is that water cannot be used for oleum separation due to the potential hydrolysis that would take place. Even if this were not a problem, no phase separation of the components takes place with the addition of water to sulfated alcohols in oleum.

SO<sub>3</sub> sulfonation and sulfation is also quite amenable to batch processing and in this manner can produce products having a minimum of sodium sulfate (all of the excess of SO<sub>3</sub>, or sulfuric acid in the case of oleum sulfonation, will be converted into sodium sulfate in the neutralization step with caustic).

Care must be exercised in the SO<sub>3</sub> process to control reaction conditions—particularly temperature—to minimize

char formation and possible sulfonation of the hydrocarbon chain of the alcohol.

Another advantage of the SO<sub>3</sub> process is its ability to successively sulfate and sulfonate an alcohol and a hydrocarbon respectively.

Because of this reaction's particular tendency to char the product, the reactor system must be cleaned thoroughly on a regular basis. In addition there are usually several airborne sulfonic acid streams which must be scrubbed, with the waste water going to the sewer during sulfation.

SO<sub>3</sub> can be generated at the plant by burning sulfur or sulfur dioxide with air instead of obtaining it as a liquid.

(11) Subpart K—SO<sub>3</sub> Solvent and Vacuum Sulfonation Subcategory. Undiluted SO<sub>3</sub> and organic reactant are fed into the vacuum reactor through a mixing nozzle (vacuum maintained at 0.06 atm (5" Hg)). Recycle is accomplished by running the flashed product through a heat exchanger back into the reactor. The main advantage of the system is that under vacuum the SO<sub>3</sub> concentration and operating temperature is kept low, thereby assuring high product quality. Offsetting this is the high operating cost of maintaining the vacuum.

(12) Subpart L—Sulfamic Acid Sulfation Subcategory. Sulfamic acid is a mild sulfating agent and is used only in very specialized quality areas because of the high reagent price. The system is of particular value in the sulfonation of ethoxylates.

The small specialty manufacturer may use this route to making high quality alcohol sulfates, equivalent in quality to those from the chlorosulfonic acid route, substituting high reagent cost for high capital costs of the chlorosulfonic route.

(13) Subpart M—Chlorosulfonic Acid Sulfation Subcategory. For products requiring high quality sulfates, chlorosulfonic acid is an excellent agent. It is a mild sulfating agent, yields no water of sulfation and generates practically no side reactions. It is a corrosive agent and generates HCl as a byproduct.

An excess of about 5 percent chlorosulfonic acid is often used. It will yield an inorganic salt upon neutralization which is undesirable in some applications as it can result in salt precipitation in liquid formulations, etc.

(14) Subpart N—Neutralization of Sulfuric Acid Esters and Sulfonic Acids Subcategory. This step is essential in the manufacture of detergent active ingredients; it converts the acidic hydrophilic portion of the molecule to a neutral salt.

Alcohol sulfates are somewhat more difficult to neutralize than the alkylbenzene sulfonic acids due to the sensitivity of hydrolysis of the alcohol derivative. For this reason, neutralization is usually carried out at a pH above 7 and as rapidly as possible.

This is not difficult using continuous neutralization but it is more of a problem in the batch process unless excellent stirring is available.

As a result of hydrolysis occurring in the neutralization step, there will be



some free alcohol generated which would be picked up in the oil and grease analysis. As a product this is not all bad since the free alcohol can actually be considered a foam stabilizer in some situations. If used in heavy duty products, the alcohol tends to be lost in the spray tower.

(15) Subpart O—Manufacture of Spray Dried Detergents Subcategory. Here is another critical area of detergent manufacture. In this segment of processing, the neutralized sulfonates and sulfates are brought to the crutcher where they are blended with requisite builders and additives. From here the slurry is pumped to the top of a spray tower of about 4.5–6.1m (15–20 ft) in diameter by 45–61m (150–200 ft) high where nozzles around the top spray out detergent slurry of approximately 70 percent concentrations.

A large volume of hot air enters the bottom of the tower rising to meet the falling detergent. For low density products, hot gas and powder flow concurrently downward.

This step is critical in that the detergent particles' shape, size and density are determined by all of the design preparation made previously, and the shape and size in turn will largely determine dusting and the solubility rate of the detergent itself in the washing process.

The air coming from the tower will be carrying dust particles which must be essentially eliminated to meet air quality standards.

Due to product change and buildup of combustible deposits, the spray towers are periodically shut down and cleaned. This practice varies from two or three times a week to once in two weeks or longer. One thing that all tower operations share is the cleaning process. First, the easily available material sticking on the tower walls is scraped to be recycled if at all possible, or sent on to solid waste.

Men are sent into the tower with abrading equipment to continue the dry cleaning process. Here again, the product is usually preserved for reuse or disposed of as solid waste.

Finally, the tower is thoroughly washed down by spraying streams all over the inside surface. The final step is mandatory since the detergent manufacturers must be very careful to avoid any mixing of any phosphate-nonphosphate formulations, white with colored systems or anionic with nonionic formulations.

The mixing problem is compounded somewhat by the fact that some detergent manufacturers custom process for a variety of marketers which requires more frequent spray tower "turnaround."

Waste water streams are rather numerous. They include many washouts of equipment from the crutchers to the spray tower itself. One waste water flow which has one of the highest loadings is that of the air scrubber which cleans and cools the hot gases existing from this tower. This is only one of

several units in series utilized to minimize the particulate matter being sent into the atmosphere.

All of the plants recycle some of the waste water generated. Some of the plants recycle all of the flows generated.

Due to increasingly stringent air quality requirements, we can expect that fewer plants will be able to maintain a complete recycle system for all water flows in the spray tower area. In the case of the fast "turnaround" tower, they too are unable to utilize all of their scrubber and other washwaters.

After the powder comes from the spray tower it is further blended and then packaged. Solid wastes from this area are usually recycled.

(16) Subpart P—Manufacture of Liquid Detergents Subcategory. Sulfonated and sulfated products produced in processes described in subcategories I through N are pumped into mixing tanks where they are blended with numerous additional ingredients, ranging from perfumes to dyes. From here, the fully formulated liquid detergent is run down to the filling line.

The filling line usually consists of a long conveyor which passes many stations. Each station performs a given task such as filling, capping, checking weight, labeling, etc. Often, soap solutions are used to lubricate the conveyor so that the bottles flow smoothly past the various stations.

Whenever the filling line is to change to a different product, the filling system must be thoroughly cleaned out. This is equally true of the mixing equipment. Properties of differing products are often so contrasting that there must be no cross contamination; otherwise the performance and other specifications cannot be met.

To avoid this problem the mixing equipment and all filling plumbing is thoroughly flushed with water until it runs clear.

(17) Subpart Q—Detergent Manufacturing by Dry Blending Subcategory. Fully dried "active" (surfactant) materials are blended with additives, including builders, in dry mixers. In the more sophisticated plants mixing time is utilized to the maximum by metering components into weighing bins prior to loading into mixers. When properly mixed, the homogeneous dry product is packed for shipment.

Normal operation will see many succeeding batches of detergent mixed in the same equipment without anything but dry cleaning. This procedure is followed until the next formulation to be blended is one which must not be contaminated with even a negligible amount of the previously prepared product. At this time the equipment must be completely washed down.

For this reason, a modest amount of waste water is required for the blender to maintain specification requirements.

The products fulfill a wide variety of industrial cleaning uses from dairy cleaning to box car washing. They are also used to some extent in household products.

(18) Subpart R—Manufacture of Drum Dried Detergents Subcategory. Drum drying of detergents is an old process. Much of the equipment still in use is well over thirty years old. The process yields a fairly friable product which can become quite dusty with any extensive handling.

There are several types of drum driers; one type has double rotating heated drums with liquid feed coming onto the space above and between the rolls. Another type is the twin-drum dryer with dip or flash feed. (The dip feed is a pan containing liquid feed into which the bottom of the roll or drum is dipped to pick up material to be dried).

The thin layer is removed continuously by a knife blade onto conveyors. The powder is substantially anhydrous. Vapors coming off are often collected and removed through a vapor head between the drums.

The rolls of a drum dryer are often 0.6–1.8 m (2–6 ft) in diameter and 0.9–4.5 m (3–15 ft) long with revolution speeds of 5–10 rpm. About 6–15 seconds residence time is provided the slurry on hot metal surface, which is short enough to avoid degradation of heat sensitive products.

As an example of the limitations of drying capacity, the capacity of the drum varies between 4.5–48.8 kg of finished product per sq m of drying surface per hour (1–10 lb per sq ft per hour).

This operation would be essentially free of generation of waste water discharge other than an occasional washdown.

(19) Subpart S—Manufacture of Detergent Bars and Cakes Subcategory. In answer to the need for a bar soap which performs satisfactorily in hard water, the detergent industry manufactures and markets detergent bars. They constitute about 20 percent of the toilet bar market.

There are two types of "detergent" bars, those made of 100 percent synthetic surfactant and those blending synthetic surfactant with soap.

Once the active ingredients have been manufactured they are blended in essentially the same manner and in similar type of equipment used for conventional soap.

Due to the sensitive nature of the surfactant portion of the detergent bar, fairly frequent cleanups, including equipment washdowns, are required. Otherwise thermally degraded surfactant will contaminate the bar, leading to such undesirable properties as stickiness and off-color.

(ii) Waste characteristics. The pollutants contained in the raw waste waters of the soap and detergent manufacturing category arise from leaks, spills, cleaning of process equipment, scrubbing of stack or vent emissions, and entrainment in barometric condensers. Potentially, any raw material, by-product, catalyst, intermediate material, or finished product associated with the industry may be found in the raw waste water. These would include both organic (e.g., fats, oils, soaps, glycerine, alkyls, alcohols,



ethoxylates and surfactants) and inorganic materials (e.g., chlorides, phosphates, silicates, sulfates, carbonates, zinc, borates, and hydrochloric and sulfuric acids), with the former being the more important group.

Pollutants or pollution characteristics which have been selected as significant and subject to limitations are BOD<sub>5</sub>, COD, total suspended non-filterable solids, oil and grease, surfactants and pH. Other pollutants and pollutant characteristics are either effectively controlled by the treatment and control that is necessary to meet the proposed limitations or present at such low levels as not to be significant.

Waste characteristics associated with raw discharges of the subcategories are as follows:

(1) Subpart A—Soap Manufacturing by Batch Kettle Subcategory. Kettle boiling soap, including pretreatment of the fats and oils, is a batch process and water use is intermittent. Instantaneous flows of 0.12–18.9 l/sec (2–300 gpm) are experienced. Over-all water use can be limited to 623 l/kg (75 gal/1000 lb) of soap, but as much as 2080 l/kg (250 gal/1000 lb) is used.

Waste waters from fat and oil pretreatment and kettle boiling will contain some fats, oils and other organics, inorganic salts, and inert materials such as clay. Thirty-day averages for the best operations are on the order of 6 kg of BOD<sub>5</sub>, 10 kg of COD, 4 kg of total suspended non-filterable solids, and 0.9 kg of oil and grease per kkg (respectively 6 lb, 10 lb, 4 lb and 0.9 lb/1000 lb) of anhydrous soap. The pH is generally about 5.0, but a range of 5.0 to greater than 13.0 has been noted. Loads several times as great as the foregoing have been recorded for some operations, resulting primarily from variances in handling the grease.

(2) Subpart B—Fatty Acid Manufacturing by Fat Splitting Subcategory. Water use in fat splitting is quite variable, ranging from 1750 to 240,000 l/kg (200 to 27,000 gal/1000 lb) of fatty acids produced. This variation is primarily the result of the degree of water recycle, the lower figure representing blowdown from a recycle system for process condensate and barometric condenser water employing a cooling tower and the upper figure representing once through water use.

The waste waters will contain salts from neutralization (waste waters usually are acidulated to break emulsions for improved skimming and then neutralized), zinc and alkaline earth metal salts from the fat splitting catalyst, and emulsified fats, fatty acids and fatty acid polymers. Typical raw waste loads for the best operations are 12 kg of BOD<sub>5</sub>, 22 kg of COD, 11 kg of total suspended non-filterable solids, and 2.50 kg of oil and grease per kkg (respectively 12 lb, 22 lb, 11 lb and 2.5 lb/1000 lb) of anhydrous fatty acid produced. Loads of 4–5 times these amounts have been encountered in some fat splitting operations, with the load level bearing a general correlation to the volume of water used. When flash hydrogenation of the fatty acids is em-

ployed (a common practice in many fatty acid operations) an additional raw waste load of 1.5 kg of BOD<sub>5</sub>, 2.5 of COD, 1.0 kg of total suspended non-filterable solids, and 1.0 of oil and grease (respectively 1.5 lb, 2.5 lb, 1.0 lb and 1.0 lb/1000 lb) is generated per kkg of anhydrous fatty acid.

(3) Subpart C—Soap Manufacturing by Fatty Acid Neutralization Subcategory. Except for a small amount of water (250 l/kg; 31 gal/1000 lb of soap) used for reclaiming scrap and resulting in sewer lyes, the subcategory has no aqueous effluent. Moreover, recovery is more nearly a by-product operation than a line operation. Potable water used in the brine (for proper electrolyte balance) is included in the neat soap that is the product.

In the best operations the recovery of scrap soap produces raw waste loads of 3 kg of BOD<sub>5</sub> and 5.5 kg of COD per kkg (respectively 3 lb and 5.5 lb/1000 lb) of anhydrous soap. Translated into terms related to total production for an operation in this subcategory, and based on the excepted portion of production represented by scrap soap recovery, the loads become 0.10 kg of BOD<sub>5</sub>, 0.25 kg of COD, 0.20 kg of total suspended nonfilterable solids, and 0.05 kg of oil and grease per kkg (respectively 0.1 lb, 0.25 lb, 0.2 lb and 0.05 lb/1000 lb) of anhydrous soap.

(4) Subpart D—Glycerine Concentration Subcategory. When compared to the discharge resulting from use of barometric condensers, the other waste waters (stream condensate, washout, etc.) are negligible volumes. Installations not recirculating barometric condenser waters discharge 465,000–1,027,000 l/kg (56,000–124,000 gal/1000 lb) of glycerine. When ion exchange (for salt removal) precedes concentration, and additional discharge of about 450 l/kg (55 gal/1000 lb) of glycerine will result from backwashing and regeneration.

Contaminants in the discharge, consisting primarily of entrained glycerine, fats, fatty acids and salt, constitute one of the heavier loads encountered in the soap and detergent manufacturing category. For the best operations the raw waste load will approximate 15 kg of BOD<sub>5</sub>, 30 kg of COD, 2 kg of total suspended nonfilterable solids, and 1 kg of oil and grease per kkg (respectively 15 lb, 30 lb, and 1 lb/1000 lb) of anhydrous glycerine.

(5) Subpart E—Glycerine Distillation Subcategory. As is the case in glycerine concentration, the major volume of waste discharge results from use of barometric condensers. A small volume of waste water, but one with extremely high concentrations of pollutants, results from washout of the glycerine foots (still bottoms). For installations not recirculating condenser waters through cooling towers the volume of discharge is 233,000–513,000 l/kg (28,000–62,000 gal/1000 lb) of anhydrous glycerine. With recirculation through a cooling tower the blowdown approximates 3325 l/kg (400 gal/1000 lb) of anhydrous glycerine.

The waste discharge will contain contaminants in the form of organics (pri-

marily glycerine and glycerine polymers) and salts. For the best operations in this subcategory the raw waste load averages 5 kg of BOD<sub>5</sub>, 10 kg of COD, 2 kg of total suspended non-filterable solids, and 1 kg of oil and grease per kkg (respectively 5 lb, 10 lb, 2 lb and 1 lb/1000 lb) of anhydrous glycerine. Condenser entrainment and glycerine foots contribute approximately equal amounts to the BOD<sub>5</sub> and COD, but other pollutants are primarily attributable to the glycerine foots.

(6) Subpart F—Manufacture of Soap Flakes and Powders Subcategory. The amounts of waste water discharged are quite small, being limited to those associated with a very occasional wet cleanup of equipment. There are additional aqueous wastes associated with recovery of scrap soap, but since all plants producing soap flakes and powders also produce neat soaps (utilizing either kettle boil or fatty acid neutralization) and the recovered soaps are incorporated into this intermediate product, these wastes have not been assigned to the soap flake and powders manufacture subcategory.

For the best operations the typical raw waste loads are 0.10 kg of BOD<sub>5</sub>, 0.30 kg of COD, 0.10 kg of total suspended non-filterable solids, and 0.10 kg of oil and grease per kkg (respectively 0.1 lb, 0.3 lb, 0.1 lb and 0.1 lb/1000 lb) of anhydrous product.

(7) Subpart G—Manufacture of Bar Soaps Subcategory. The volume of waste water discharged in the manufacture of bar soap is quite variable, ranging from near zero to about 6700 l/kg (800 gal/1000 lb) of anhydrous soap. Water from drying neat soap may be vented to the atmosphere or a barometric condenser may be employed, serving both as a source of pressure reduction to attain faster drying at lower temperatures and as a final scrubber for atmospheric emissions. In the former case there is no aqueous waste, while in the latter the discharge ranges up to 6230 l/kg (750 gal/1000 lb) of anhydrous soap. Similarly, cleaning of equipment may be accomplished, dry or small amounts of water may be used.

Contaminants found in the waste waters are soap and various additives (pigments, emollients, perfumes, etc.) incorporated into finished bar soaps. Average raw waste loads for the best operations in this subcategory are 3.4 kg of BOD<sub>5</sub>, 5.7 kg of COD, 5.8 kg of total suspended non-filterable solids, and 0.4 kg of oil and grease per kkg (respectively 3.4 lb, 5.7 lb, 5.8 lb and 0.4 lb/1000 lb) of anhydrous product.

(8) Subpart H—Manufacture of Liquid Soaps Subcategory. Production of liquid soap, consisting of a simple blending operation followed by filling of rather large containers such as drums, has very little associated aqueous effluent. The water use of 16.6 l/kg (2 gal/1000 lb) of anhydrous soap for equipment washout and the slightly larger amount used for cleaning filters will contribute a raw waste load of about 0.1 kg of BOD<sub>5</sub>, 0.3 kg of COD, 0.1 kg of total suspended non-filterable solids, and 0.1 kg of oil and grease per kkg (respectively 0.1 lb, 0.3



lb, 0.1 lb and 0.1 lb/1000 lb) of anhydrous product.

(9) Subpart I—Oleum Sulfonation and Sulfonation Subcategory. Waste water discharges associated with oleum sulfonation and sulfonation are very limited in volume, the 100–2700 l/kg (12–300 gal/1000 lb) of anhydrous products that results from playing water over pump packing glands for removal of small leaks and cooling being the only regular discharge. Scrubbing of emissions from the SO<sub>3</sub> vent during filling of the oleum storage tank, cleanup of spills and leaks, and washout of equipment prior to performance of maintenance will result in short periods of a much higher discharge rate. Further reduction of water use is not feasible because of the highly acidic nature of the oleum raw material and the sulfuric acid esters and sulfonic acids products.

Contaminants found in the raw waste discharge may represent the full range of feed materials and products. Typical raw waste loads for a well managed operation are 0.2 kg of BOD<sub>5</sub>, 0.6 kg of COD, 0.3 kg of total suspended non-filterable solids, 0.07 kg of surfactants, and 0.3 kg of oil and grease per kkg (respectively 0.2 lb, 0.6 lb, 0.3 lb, 0.7 lb and 0.3 lb/1000 lb) of anhydrous product.

(10) Subpart J—Air-SO<sub>3</sub> Sulfonation and Sulfonation Subcategory. Though there are no continuous discharges associated with this operation, the volume of discharge is several times that associated with oleum sulfonation and sulfonation. In addition, water use with batch operations is considerably greater than for continuous operations.

Contaminants found in the raw waste discharges may represent the full range of raw materials and products associated with the process, but the principal ones will be under sulfated materials produced at startup and charred materials that are the result of the extremely vigorous nature of the reaction. Raw waste loads associated with the best operations in this subcategory are 3 kg of BOD<sub>5</sub>, 9 kg of COD, 0.3 kg of total suspended non-filterable solids, 3 kg of surfactant, and 0.5 kg of oil and grease per kkg (respectively 3 lb, 9 lb, 0.3 lb, 3 lb and 0.5 lb/100 lb) of anhydrous product. Small batch operations may experience somewhat higher waste loads.

(11) Subpart K—SO<sub>3</sub> Solvent and Vacuum Sulfonation Subcategory. The volume of discharge generally closely approximates that for air-SO<sub>3</sub> sulfonation, as do the contaminants. If barometric condensers are employed for pressure reduction, the volume of discharge will be greatly increased. Typical raw waste loads are 3 kg of BOD<sub>5</sub>, 9 kg of COD, 0.3 kg of total suspended nonfilterable solids, 3 kg of surfactants, and 0.5 kg of oil and grease per kkg (respectively 3 lb, 9 lb, 0.3, 3 and 0.5 lb/100 lb) of anhydrous product.

(12) Subpart L—Sulfamic Acid Sulfonation Subcategory. The volume, contaminants and loads of the raw waste parallel those of SO<sub>3</sub> solvent and vacuum sulfonation above.

(13) Subpart M—Chlorosulfonic Acid Sulfonation Subcategory. Discharges are of modest volumes and intermittent. The contaminants expected in waste waters are the feedstocks (alcohols, alkylphenols and alcohol ethoxylates), chlorosulfonic acid hydrolysis products (HCl and H<sub>2</sub>SO<sub>4</sub>) and the sulfated surfactants. Typical raw waste loads are 3 kg of BOD<sub>5</sub>, 9 kg of COD, 0.3 kg of total suspended nonfilterable solids, 3 kg of surfactants, and 0.5 kg of oil and grease per kkg (respectively 3 lb, 9 lb, 0.3 lb, 3 lb and 0.5 lb/1000 lb) of anhydrous product.

(14) Subpart N—Neutralization of Sulfuric Acid Esters and Sulfonic Acids Subcategory. The volume of discharges is quite variable and largely dependent on the degree to which recycle of cooling waters is practiced. A range of 10.4–4170 l/kg of anhydrous product (1.25–500 gal/1000 lb) has been noted. Similarly, a wide range of contaminants concentration and load has been recorded, the ratio of highs to lows approximating 10 to 1. In general, low loads are associated with small volumes and high concentrations and high loads associated with large volumes and low concentrations. Raw waste loads for the best operations are 0.1 kg of BOD<sub>5</sub>, 0.3 kg of COD, 0.3 kg of total suspended nonfilterable solids, 0.2 kg of surfactants, and 0.1 kg of oil and grease per kkg (respectively 0.1 lb, 0.3 lb, 0.3 lb, 0.2 lb and 0.1 lb/1000 lb) of anhydrous product.

(15) Subpart O—Manufacturing of Spray Dried Detergents Subcategory. Three sets of operating conditions must be considered in discussion of waste characteristics and other factors associated with manufacture of spray dried detergents: (1) Processing of low or nonionic surfactant content formulations (hence few atmospheric emission control problems and with little or no requirement for wet scrubbing) with relatively long runs and few turnarounds; designated as normal operation. (2) Processing of high nonionic surfactant content formulations with the consequent severe atmospheric emission control problems that require extensive wet scrubbing; designated as air quality restricted operations. (3) Processing of numerous widely varying formulations (high-phosphate, nonphosphate, etc.) in short runs with associated need for frequent washouts to avoid cross-contamination of products; designated as fast turnaround operation.

There is such a wide range of variation in the volumes of discharge within a single type of operation and between the types of operations that it is not possible to relate volumes of discharge to units of production. Normal operations may approach zero discharge. Volumes of discharge for air restricted operations will be determined by the amount of scrubbing required, a factor controlled by the specific formulation. For fast turnaround operations the volume of discharge will be determined by the length of runs and characteristics of the formulation (e.g., tackiness and tendency to char).

Constituents that may be found in the waste discharges are any of the surfactants and builders employed in the formulations. Typical raw waste loads for the best normal operations are 0.1 kg of BOD<sub>5</sub>, 0.3 kg of COD, 0.1 kg of total suspended non-filterable solids, 0.2 kg of surfactants, and 0.0 kg of oil and grease per kkg (respectively 0.1 lb, 0.3 lb, 0.1 lb, 0.2 lb, and 0.0 lb/1000 lb) of anhydrous product. For air quality restricted operations the comparable values are 0.8 kg of BOD<sub>5</sub>, 0.3 kg of COD, 0.1 kg of total suspended non-filterable solids, 1.5 kg of surfactants, and 0.3 kg of oil and grease per kkg (respectively 0.8 lb, 2.5 lb, 1.0 lb, 1.5 lb, and 0.3 lb/1000 lb) of anhydrous product. For each turnaround in excess of six in a thirty-day period an added raw waste load of 0.2 kg of BOD<sub>5</sub>, 0.6 kg of COD, 0.2 kg of total suspended non-filterable solids, 0.4 kg of surfactants, and 0.03 kg of oil and grease, per kkg (respectively 0.2 lb, 0.6 lb, 0.2 lb, 0.4 lb, and 0.03 lb/1000 lb) of anhydrous product is expected in well managed fast turnaround operations.

(16) Subpart P—Manufacture of Liquid Detergents Subcategory. Waste discharge volumes range from 625–6250 l/kg (75–750 gal/1000 lb) of anhydrous detergent. Any of the starting ingredients of the specific detergents being processed may be found in the raw discharge. Raw waste loads for the best operations are 2 kg of BOD<sub>5</sub>, 4 kg of COD, 1.3 kg of surfactant, 0.0 kg of total suspended non-filterable solids, 0.0 kg of oil and grease per kkg (respectively 2 lb, 4 lb, 1.3 lb, and 0.0 lb/1000 lb) of anhydrous product.

(17) Subpart Q—Manufacture of Detergents by Dry Blending Subcategory. The small, but variable, amounts of waste water that may be generated by cleanup of spills and washout of equipment cannot be related to units of product. Constituents in the discharge may represent any of the surfactants or builders employed. Raw waste loads should not exceed 0.1 kg of BOD<sub>5</sub>, 0.5 kg of COD, 0.1 kg of total suspended non-filterable solids, 0.1 kg of surfactants, and 0.0 kg of oil and grease per kkg (respectively 0.1 lb, 0.5 lb, 0.1 lb, 0.1 lb, and 0.0 lb/1000 lb) of anhydrous detergent.

(18) Subpart R—Manufacture of Drum Dried Detergents Subcategory. Very limited discharges will be generated during mandatory washdown attributable to equipment failure or critical formulation changes. The average raw waste loads which can be expected for the best operations are 0.1 kg of BOD<sub>5</sub>, 0.3 kg of COD, 0.1 kg of total suspended non-filterable solids, 0.1 kg of surfactants, and 0.1 kg of oil and grease per kkg (respectively 0.1 lb, 0.3 lb, 0.1 lb, 0.1 lb, and 0.1 lb/1000 lb) of anhydrous product.

(19) Subpart S—Manufacture of Detergent Bars and Cakes Subcategory. Volumes of waste water in this subcategory generally exceed those for manufacture of bar soaps (Subpart A) by about 50 percent. This is attributable to the necessity for equipment washdown to avoid contamination by degradation of surfactants adhering to heated surfaces.



Contaminants include surfactants, additives (pigments, perfumes, emollients, etc.) and soap (a major component of most "detergent" bars). For a well-operated installation the raw waste loads should not exceed 7 kg of BOD<sub>5</sub>, 22 kg of COD, 2 kg of total suspended non-filterable solids, 5 kg of surfactants, and 0.2 kg of oil and grease per kkg (respectively 7 lb, 22 lb, 2 lb, 5 lb, and 0.2 lb/1000 lb) of anhydrous product.

(iii) Origin of waste water pollutants in the soap and detergent manufacturing category. (1) Soap manufacturing by batch kettle subcategory: Spills and leaks. These are variable volume sources of a sporadic nature. Potential pollutants include fats and oils, soap, salt, and alkalies.

Fat and oil pretreatment. Various amounts of water from acid or caustic washes, steam condensate from heating of fats and oils, and in some operations barometric condenser waters. Potential pollutants include fats and oils, clay or proprietary pretreatment chemicals, and low molecular weight fatty acids.

Nigre from kettle boil. Varying small volumes of water containing soaps, impurities such as color bodies, salt, caustic and some unreacted fats and oils.

Sewer lyes from reclaiming of scrap soap. Varying small amounts of water containing soap, salt, caustic and detritus such as paper and dirt.

(2) Manufacturing of fatty acids by fat splitting subcategory. Spills and leaks. Variable volume sources of a sporadic nature, potentially containing fats and oils, fatty acids and glycerine.

Barometric condensers. The volume is small if recycle with blowdown is practiced and large if once-through water use is practiced. Expected pollutants are fats and oils, fatty acids (especially short chain acids) and glycerine.

Still bottoms. Small volume, but highly concentrated wastes that will contain fats and oils, fatty acids, glycerine and zinc and alkaline earth metal salts from catalysts.

(3) Manufacturing of soap by fatty acid neutralization subcategory. Spills and leaks. Variable small volumes of a sporadic nature. Potential pollutants are caustics, fatty acids and soaps. Sewer lyes from reclaiming of scrap soap: as in subpart A.

(4) Glycerine concentration Subcategory. Barometric condensers. Volumes are highly variable and dependent on the degree of recycle and blowdown. Expected pollutants are glycerine and salt.

Leaks and spills—Variable in volume and sporadic. Pollutants are glycerine and salt.

(5) Glycerine distillation subcategory. Leaks and spills. Variable in volume and sporadic. Pollutants are glycerine and salt.

Barometric condensers. Volumes are highly variable and dependent on the degree of recycle and blowdown. Expected pollutants are entrained glycerine and salt.

Glycerine foots (still bottoms). Small volumes of highly concentrated wastes

containing glycerine, glycerine polymers and salt.

(6) Manufacture of soap flakes and powders subcategory. Leaks and spills. Variable in volume and sporadic. Pollutants are soap, builders and other additives.

Equipment cleaning. The volumes expected would be relatively small and of infrequent occurrence, as most cleanup would be dry.

(7) Manufacture of bar soaps subcategory: Barometric condensers. This source would exist only if vacuum driers are employed and generally would be less than 6.3 l/sec (100 gpm). Pollutants would be entrained soap dust containing soap and additives.

Scrubbers. Scrubbers may be employed to control dust from various operations in this subcategory. In terms of volumes of water employed for scrubbing in other subcategories, the quantity in this subcategory is small. When barometric condensers are present, the condenser water may be used for scrubbing. Pollutants would be soap and additives.

Equipment cleanup. Volumes would be small and occurrence infrequent (most cleanup is dry). Pollutants are soaps and additives.

(8) Manufacture of liquid soaps subcategory: Leaks and spills. Sporadic and of limited quantity.

Equipment cleanup. Rather infrequent and of relatively small quantities. Pollutants are soap, builders and other additives.

(9) Oleum sulfonation and sulfation subcategory: Leaks and spills. Sporadic in nature. Volumes of waste water will be very large in relation to the amount of material spilled because of dilution required to control hazards attributable to the high acidity of the oleum and the sulfonated and sulfated materials. Pollutants could be oleum, feedstocks and sulfonated or sulfated products.

Pump packing gland waters. The volume generally would be 0.3 l/sec (5 gpm) or less and the potential pollutants would be oleum, feedstocks and sulfonated or sulfated products.

Oleum tank vent scrubber. Atmospheric emissions from the vent are scrubbed during filling of the oleum tank to remove SO<sub>3</sub> vapors. The pollutant will be dilute sulfuric acid.

(10) Air-SO<sub>3</sub> sulfation and sulfonation subcategory: Leaks and spills. Sporadic and variable large volumes due to dilution required by the highly acidic materials.

By-product disposal. In continuous processes the charred materials collect in pots and the pots are periodically flushed. Water use is approximately 250 l/kg (30 gal/1000 lb) of product. Pollutants will consist of sulfonated and sulfated materials.

Equipment cleanup. Washing of equipment will contribute varying amounts of water. For continuous processes this will occur infrequently. For batch process it will occur after each batch. In many installations this will also include washing of filters that are installed for re-

moval of impurities in various process streams. Pollutants expected are feedstocks and sulfated or sulfonated products.

(11) SO<sub>3</sub> solvent and vacuum sulfonation subcategory: Leaks and spills. Variable and sporadic. Pollutants are feedstocks and sulfonated products.

Equipment cleaning. This is the principal source of discharge and may follow each batch. Pollutants are unreacted feedstocks and sulfonated products.

Barometric condensers. If barometric condensers are employed there will be a large volume of dilute waste containing entrained feedstocks and sulfonated materials.

(12) Sulfamic acid sulfation subcategory. As in (11) subpart K above, but higher levels of water use and pollutants due to the highly viscous product and high surface to volume ratio of the reactor. Barometric condensers will not be employed.

(13) Chlorosulfonic acid sulfation subcategory: Leaks and spills. Variable quantities of sporadic occurrence containing feedstocks and products.

Equipment cleaning. Washouts will occur occasionally, not after each batch. Pollutants are unreacted feedstocks and sulfated products.

By-product hydrochloric acid hydrolysis of the chlorosulfonic acid produces hydrochloric acid which may be absorbed in water or an alkaline solution and then sewer.

(14) Neutralization of sulfuric acid esters and sulfonic acids subcategory. Leaks and Spills. Variable sporadic quantities containing the sulfonated and sulfated feedstocks and the neutralized surfactants.

Equipment cleaning. Infrequent and generally associated with maintenance of equipment. Pollutants expected are feedstocks and products.

(15) Manufacture of spray dried detergents subcategory. Leaks and spills: Variable and sporadic. Pollutants expected are surfactants, builders and other additives. Scrubbers: Refer to (11), (15), Subpart O. Equipment cleaning: Refer to (11), (15), Subpart O.

(16) Manufacture of liquid detergents subcategory. Leaks and spills. Variable and sporadic. Potential pollutants represent the full range of surfactants and additives.

Equipment cleaning. This is the main source of waste water and pollutants associated with the subcategory. The full range of surfactants and additives is to be expected in the discharge.

(17) Manufacture of detergents by dry blending subcategory. Leaks and spills. Little or no water will be utilized for cleanup of spills. Potential pollutants represent the full range of materials employed.

Equipment cleaning. Wet cleaning of equipment is an infrequent occurrence and will involve minor amounts of water. Potential pollutants encompass the full range of materials employed.

(18) Manufacture of drum dried detergents subcategory. Leaks and spills.



Variable and sporadic. Full range of materials employed may appear in resulting waste.

Equipment cleaning. Wet cleaning of equipment is infrequent and should involve only minor quantities of water.

Scrubbers. Scrubbers may be present in some installations to control atmospheric emissions. The waste discharges will be similar to those encountered in spray towers, but lower in contaminant concentration and much lower in volume.

(19) Manufacture of detergent bars and cakes subcategory. In general this subcategory parallels manufacture of bar soaps (refer to (iii), (7) Subpart G). The most significant difference is the requirement for more frequent and complete washouts because of the heat sensitive nature of the detergents' active ingredients.

(iv) Treatment and Control Technology. In-plant pollution controls fall into two broad areas, housekeeping and modification of processes and equipment. There is sufficient difference in appropriate in-plant control among the subcategories to warrant separate discussions by subcategory rather than a single generalized discussion. Such coverage is provided under heading (v). Those procedures which most appropriately may be considered pretreatment of raw waste streams are covered under that same heading.

As a result of the very limited number of point sources existing in the soap and detergent manufacturing category, very little information is available on "end-of-pipe" treatment. However, the information available from the industry's experience and laboratory or bench scale studies indicated that the wastes are amenable to satisfactory reduction in properly designed and operated biological treatment systems. Treatment systems presently operated by point sources in the industry are of three types, i.e., oxidation lagoons, aerated lagoons, and systems involving modified activated sludge (extended aeration).

Identification of plants utilizing oxidation lagoons and receipt of very limited data on their operational parameters occurred extremely late in the period of effluent guidelines development. Hence, it was not possible to fully evaluate this treatment option.

Based on the limited information available, it appears that one plant whose operations include several subcategories in the detergent area is meeting the recommended effluent limitations with an oxidation lagoon having about a six-month retention period. Specialized fatty acids producers apparently are not meeting the limitations with oxidation lagoons, but it seems to be a combined function of excessive raw waste loads and low treatment efficiency. It must be noted that their operations include specialized processes (e.g., amination and ethoxylation of fatty acids) that are not included in the guidelines for the soap and detergent manufacturing category. An aerated lagoon (of approximately 45-day retention and preceded by equaliza-

tion) utilized by a liquid detergent plant is attaining reductions of approximately 94 percent for BOD<sub>5</sub>, 85 percent for COD, and 73 percent for total dissolved solids, but no reduction in total suspended non-filterable solids. Since only 3-4.5 kw (4-6 hp) rather than the typical 25-30 kw (30-40 hp) of aeration per million gallons of capacity is supplied, the present mode of operation of this treatment facility is intermediate to those of an oxidation lagoon and a completely mixed aerated lagoon. Engineering evaluation indicated that reductions on the order of 98 percent for BOD<sub>5</sub>, 90 percent for COD, and 90 percent for total suspended non-filterable solids are attainable if 25-30 kw (30-40 hp) of aeration per million gallons of capacity are supplied, a final clarification stage is installed, and much of the sludge from clarification is returned to the lagoon.

For a number of years a treatment system consisting of an equalization basin, an extended aeration unit, and a final clarifier has been operated by a major integrated soap and detergent plant. This treatment system generally has realized BOD<sub>5</sub> reductions approaching 90 percent, COD reductions of 85 percent and total suspended non-filterable solids reduction of 84 percent, but it has been subject to occasional major upsets. At present, the system is being revamped to include a much larger equalization basin and a lime addition flocculation and precipitation unit, both preceding the existing equalization basin. Under the new mode of operation the treatment system is expected to attain reduction of 94 percent and 92 percent for BOD<sub>5</sub>, COD, and total suspended non-filterable solids respectively, and there should be drastic reduction in upset frequency and severity.

In view of the foregoing, it is the decision of EPA that any end-of-pipe treatment consistent with the best practicable control technology currently available in the soap and detergent manufacturing category of point sources is the equivalent of a biological treatment attaining reductions of 90 percent for BOD<sub>5</sub>, total suspended non-filterable solids, oil and grease, and surfactants and a reduction of 85 percent for COD.

Additional treatment must be considered in evaluating the degree of effluent reduction attainable through the application of the best available technology economically achievable and the standards of performance for new sources. Since there are no treatment techniques known to be applied in the soap and detergent manufacturing industry other than those previously described, transfer of technology from other industrial categories or research must be considered. Among the treatment procedures that appear to merit consideration are various lion 1/day (1,000,000 gal) down to 0.38 lagoons and sand, mixed media or carbon filters, two stage activated sludge, and chemical-physical techniques.

With the exception of chemical-physical treatment, a virtually unknown quantity, it reasonably can be assumed that the procedures would attain effluent dis-

charges 50-75 percent lower than those presently attained. Cost and availability of land, capital and operating costs of treatment, and characteristics of the specific wastes will influence the selection of the most appropriate treatment procedure. For a volume range of 3.8 million 1/day (1,000,000 gal) down to 0.38 million 1/day (100,000 gal), the capital costs range from \$50-300/3800 1 (1000 gal)/day and the direct operating costs range from \$0.03-0.50/3800 1 (1000 gal)/day, with the costs for carbon filtration being about double those of the other approaches.

The disposal of solid wastes (consisting of wastes handled "dry" within the plant and sludge generated by end of process treatment) does not constitute a serious problem. The wastes are readily subject to degradation in land disposal sites and are, in fact, less hazardous to the environment than many materials commonly placed in municipal sanitary landfills.

The need for atmospheric emission control is limited to processes associated with drying of soaps and detergents, especially spray drying of detergents. With the exception of the spray drying of some detergent formulations requiring use of such large quantities of scrubber water that it cannot all be recycled to process, atmospheric emissions can be controlled by dry methods (cyclones, bag houses and electrostatic precipitators) or use of limited wet scrubbing with scrubber water recycled to process. For the exception cases it is the position of EPA that it is preferable to have pollutants in aqueous wastes which will receive subsequent treatment rather than in atmospheric emissions. This is reflected in the proposed guidelines for manufacture of spray dried detergents (Subpart G).

(v) Treatment and control technology within subcategories. End-of-pipe treatment does not vary significantly for the subcategories and thus will not be discussed by subcategory. Similarly, good housekeeping practices (e.g., maintenance, "dry" cleanup of all but very hazardous spills with recycle to process or disposal as solid waste) are essentially consistent and will not be discussed by subcategory.

(1) Treatment in soap manufacturing by batch kettle subcategory. The principal waste loads associated with batch kettle production of neat soap are those resulting from discharge of nigre. Controls which should be considered include: (a) Recovery of nigre as a by-product to be processed into pet soaps, industrial lubricants, or other low-grade products; (b) Recycle to extinction through use of a counter current mode of operation; and (c) Acidulation of the nigre to release soaps, fats and oils followed by skimming for recovery of these materials.

(2) Treatment in the fatty acid manufacturing by fat splitting subcategory. The principal waste loads associated with this subcategory result from entrainment in barometric condenser waters and discharge of still bottoms.



Waste control measures which merit consideration include: (a) Improvement of skimming through utilization of flocculants for flotation or precipitation; (b) Installation of improved demisters, fractionation trays, or other devices to reduce entrainment; (c) Recycle of reactor condensate back into process; (d) Recycle of barometric condenser water by utilization of cooling towers and blowdown to minimize hydraulic loading for improved skimming and end-of-pipe treatment; (e) Operation of cooling towers as biological towers; and (f) Replacement of barometric condensers with surface condensers and vacuum pumps.

(3) Treatment in the soap manufacturing by fatty acid neutralization subcategory. The raw waste discharge for this subcategory appears to be at or near the achievable minimum, the only aqueous waste being the small amount of sewer lyes resulting from reclaiming of scrap soap. Any minor in-plant decreases in pollutant discharge could only result from improved housekeeping or improved pretreatment (e.g., use of flocculants in skimming).

(4) Treatment in the glycerine concentration subcategory. In terms of waste load per unit of anhydrous product the raw effluent loads arising from entrainment in barometric condenser water in this process represent the highest encountered within the industry. Because of the infinite solubility of glycerine in water typical pretreatment is ineffective; thus, the only approaches for reduction of pollutant discharge are process and equipment modifications and end-of-pipe treatment. Process and equipment modifications meriting consideration include: (a) Installation of improved demisters, fractionation trays, or other devices to reduce entrainment; (b) Recycle of barometric condenser water by utilization of cooling towers and blowdown to minimize hydraulic loading for improved end-of-pipe treatment; (c) Operation of cooling towers as biological towers to reduce the organic load in blowdown; and (d) Replacement of barometric condensers with surface condensers and vacuum pumps.

(5) Treatment in the glycerine distillation subcategory. Pollutants discharged from the glycerine distillation process represent one of the higher raw waste loadings in terms of waste load per unit of anhydrous product. Two sources, entrainment in barometric condenser water and discharge of glycerine foots, contribute about equal amounts. Appropriate entrainment controls are the same as those for the glycerine concentration subcategory. Glycerine foots are a highly viscous semi-solid at normal temperature. Common industry practices are to discharge the hot foots into a tank containing sufficient water for solution prior to discharge to the sewer, or to remove the foots in washdown of the still. Alternatives for handling glycerine foots include: (a) Recovery as a byproduct for potential further processing; (b) Collection and disposal as a solid waste; and (c) Incineration in special-design boilers for recovery of heat value.

(6) Treatment in the manufacture of soap flakes and powders subcategory. This subcategory is a very minor source of aqueous discharge. Recycle of water and return of water to process should result in an essentially dry process.

(7) Treatment in the manufacture of bar soap subcategory. Volumes of discharge from this subcategory are small but some effluents carry relatively heavy pollutant loads. Other than pollutants arising from spills, leaks and washout of equipment, all of which can be minimized by utilizing dry cleanup to the greatest degree possible, the major sources of pollution are associated with drying of the neat soap and reclaiming of scrap soap. Appropriate controls in reclaiming scrap soap are as discussed in (1) Subpart A and (3) Subpart C. Controls meriting consideration for control of contaminants from drying include: (a) Replacement of wet scrubbers on atmospheric emissions with cyclones, bag houses, electrostatic precipitators or other dry control measures; (b) Replacement of barometric condensers on vacuum driers with surface condensers and vacuum pumps; (c) Installation of atmospheric driers ahead of vacuum driers; (d) Recycle of barometric condenser water utilizing cooling towers and blowdown; and (e) Improved skimming utilizing acidification, flocculation, or flotation.

(8) Treatment in the manufacture of liquid soaps subcategory. This subcategory is a very minor source of waste effluents. The equipment employed is simple and does not offer much potential for reduction of waste discharge through modification. Housekeeping (spill control, etc.) and production scheduling to minimize need for washouts are the principal means of reducing effluents.

(9) Subpart I—Treatment in oleum sulfonation and sulfation subcategory. This subcategory is essentially optimized at the present, and reduction of effluents is largely a matter of housekeeping.

(10) Treatment in the Air-SO<sub>3</sub> sulfonation and sulfation subcategory. In terms of loads per unit of product the waste discharges from this subcategory are among the highest encountered in the industry. In-plant controls which should be considered include: (a) recycle of under sulfonated material produced at startup; (b) recycle of scrubber water; (c) installation of improved controls for mixing, temperature, etc.; and (d) in case of expansion or replacement, the installation of new processes.

(11) Treatment in the solvent and vacuum sulfonation subcategory. This process is usually a small batch operation that will have waste loadings similar to those of the air-SO<sub>3</sub> sulfonation subcategory. Potential waste reduction controls include: (a) recycle of scrubber and barometric condenser waters, utilizing cooling towers and blowdown; (b) operation of cooling towers as biological towers; and (c) replacement of barometric condensers with surface condensers and vacuum pumps.

(12) Treatment in the sulfamic acid sulfonation subcategory. This is a batch operation performed in simple equipment with leaks, spills and washout being the source of waste effluents. Potential control measures include: (a) reuse of wash water, either as wash water or as a feed for other sulfonation and sulfation processes; and (b) replacement of water with other solvents for washout.

(13) Treatment in the chlorosulfonic acid sulfonation subcategory. This is a batch operation performed in simple equipment with leaks, spills and washout being the source of waste effluents. Potential control measures include: (a) reuse of wash water, either as wash water or as feed for other sulfonation and sulfation processes; and (b) replacement of water with other solvents for washout.

(14) Treatment in the neutralization of sulfuric acid esters and sulfonic acids subcategory. This process is at or near optimum operation with continuous process installations highly automated. Waste control to further reduce the existing low waste levels is solely a matter of improved housekeeping.

(15) Treatment in the spray dried detergents subcategory. Because of the large volumes involved, spray drying towers are one of the principal sources of waste effluent in the industry. As noted in the previous discussions of waste sources and characteristics, there is considerable variation in operation of spray towers. Similarly, there is variation in appropriate in-plant control.

Through utilization of dry controls for atmospheric emissions (cyclones, bag houses and electrostatic precipitators) and maximum recycle into process of equipment wash water, it is possible for normal spray tower operation to be essentially a closed system. Such is not the case for air quality restricted and fast turnaround operations where wet scrubbing of atmospheric emissions and frequent washouts generate extremely large volumes of waste water. There are, however, modifications that can reduce effluents for from one to all three modes of operation. These include: (a) Scheduling of production so as to minimize the number of turnarounds requiring washout; (b) installation of holding tanks to permit recycle of washouts for at least the most commonly processed formulations; and (c) installation of a two stage scrubber in stacks of spray towers processing formulations causing atmospheric emission problems, the first stage to utilize cooled water and both stages to employ recirculation. To the maximum extent possible, blowdown from the second stage should be used for make-up in the first stage, and blowdown from the first stage should be used in crutchers.

(16) Treatment in the manufacture of liquid detergents subcategory. Filling lines are the principal source of waste discharges from this operation, with much of the waste resulting from purging and cleaning associated with the changeover of product. Approaches for minimizing wastes include: (a) scheduling of production to minimize the number of product changeovers; (b) installation



of provisions for air blowing of lines for changeover; and (c) installation of facilities for capture, storage and recycle of spills and washouts to product make-up.

(17) Treatment in the detergent manufacturing by dry blending subcategory. Reduction of waste discharge of this essentially dry operation is strictly a matter of improved housekeeping, including elimination of spills and dry cleanup of spills and equipment.

(18) Treatment in the manufacture of drum dried detergents subcategory. Again, this is an essentially "dry" operation. If scrubbers are utilized on atmospheric emissions, the resulting water should be recycled using cooling towers. In view of the limited amount of contaminant expected, operation of such cooling towers as biological towers could result in near zero discharge of pollutants.

(19) Treatment in the detergent bars and cakes subcategory. In general, as in (7) Subpart G—manufacture of bar soaps subcategory. Consideration might be given to recycle of equipment washout to the crutchers of a spray tower in larger integrated plants.

(vi) Cost estimates for control of waste water pollutants in the soap and detergent manufacturing category. The cost and energy requirements associated with control and treatment technologies, including those for the fat splitting, fatty acid refining and hydrogenation, operations of fatty acid specialty producers, have been considered. The capital investment required for compliance with the 1977 limitation (at least 80 percent of which is attributable to the needs of fatty acid specialty producers) has been estimated at \$350,000 for all point sources. Additional capital investment of about \$750,000 is required for compliance with 1983 limitations. Of this additional capital investment, approximately 25–30 percent represents the share of fatty acid specialty producers and the remainder is assignable to the basic soap and detergent manufacturing industry. The relatively low capital investment requirements for compliance reflect the influence of two factors: First, the very limited number of point sources; and secondly, the fact that most of the treatment and control facilities required to meet the limitations are in place at present.

Relatively minor modifications in end-of-pipe treatment account for the bulk of the capital investment required to meet the 1977 limitations in the case of the basic soap and detergent manufacturing industry. For the fatty acid specialty producers about 25 percent of the expenditure is for modification of end-of-pipe treatment and the remainder is for in-plant control, primarily for recycle of barometric condenser waters and improved oil and grease skimming. The split in additional capital investment for compliance with 1983 limitations is approximately 75 percent for the basic soap and detergent manufacturing industry and 25 percent for fatty acid specialty producers. For both

groups the costs representing in-plant control and end-of-pipe treatment are approximately equal.

Added energy requirements for compliance with either 1977 or 1983 effluent limitations are less than 5 percent of the total energy consumption for point sources and only a small fraction of 1 percent of the consumption for the entire industry. Consumption of energy by point sources for end-of-pipe treatment approximates 3,000 kwh/day and in-plant controls are estimated to consume an additional 15–30 kwh/day; most of the facilities which account for these energy consumptions are in place at present.

The foregoing estimates are based on the existing situation in the soap and detergent manufacturing industry. If increasingly stringent pretreatment requirements and user charges associated with discharge to municipal systems should result in opting for industry treatment of its wastes, an alternative probably beyond the financial capabilities of many smaller companies, minimum investment to meet the 1977 limitations would exceed \$50 million and additional investment to meet 1983 limitations would exceed \$20 million. Similarly, an at least one hundred fold increase in direct energy requirements would occur.

(vii) Establishing daily maximum limitations. In setting daily maximum limitations the reliability of both end-of-pipe treatment and in-plant process control must be considered. In the normal operation of biological treatment systems, especially those receiving variable loading, appreciable deviations from the average waste reduction efficiency are to be expected in daily performance. Such is the case in the soap and detergent manufacturing industry even though intensive effort is devoted to equalizing loading and maintaining efficiency of the biological treatment system. The 1977 effluent limitations for the thirty day period are based on an average BOD<sub>5</sub> reduction of 90 percent and the correspondingly expected reduction of other pollution parameters (e.g., 85 percent for COD). Daily maximums have been based on 75–80 percent reduction of BOD<sub>5</sub>. The 1983 limitations are based on slightly improved average waste reduction efficiency and greater consistency of performance.

The raw waste loads that have been utilized in developing the recommended limitations for the thirty day period are those attainable with appropriate inplant control technology. As in the case of treatment, it must be recognized that there is potential for daily variation in operation of in-plant control. Within the subcategories two different types of raw waste loads are encountered: very low waste loads which even with careful control may be subject to great increase on any day, and relatively high waste loads which with careful control should be subject to very little daily variation. Typical of the first are the small loads from oleum sulfonation in which a blown pump packing gland

could result in a loss equivalent to a normal day's loss in a matter of minutes. Typical of the second are the relatively heavy loads from glycerine concentration for which appreciable increase in any day's load would represent poor control.

In recognition of the potential variation in both end-of-pipe treatment and in-plant control, which could occur independently or concurrently, daily maximum limitations ranging from two to five times the thirty day average have been set.

(viii) Non-water-quality environmental impact. Facets of non-water-quality impact to be considered are solid waste disposal, air quality and land use. Of these three the principal area of impact is solid waste disposal. Other potential areas of impact such as noise and vibration do not merit serious concern.

Solid wastes in the form of sludge will be generated by the biological treatment systems, but they will be of limited volume and innocuous, requiring only minimal custodial care in disposal sites. Incineration of the sludges prior to disposal will reduce them to 5–10 percent of their initial mass and render them even more innocuous. Some sludge will result from the operation of gravity type oily water treaters. This sludge would normally be combined with other waste solids from process and treatment and represents a shift in site, not volume, of solid wastes.

Limited potential for air pollution exists as a result of biological treatment and sludge incineration. Proper design and control will minimize any impact. Conversely, control of air emissions from stacks and vents adds to the aqueous pollutant load when use of wet scrubbers is required, but it is preferable to have the pollutants in the waste waters where they will receive subsequent treatment.

Depending on the size of the plant and the treatment processes employed, the land requirements for treatment will vary from as little as one-half acre to as much as three to five acres. For the existing point sources, or even if applied to the entire industry, this does not represent a serious withdrawal of land from other productive uses. Attainment of zero discharge of pollutants through irrigation with waste waters would require large acreages of land which are not available in the urbanized areas where soap and detergent plants generally are located.

(ix) Economic impact analysis. A study conducted by EPA has concluded that the proposed effluent limitations will not seriously threaten the economic viability of the soap and detergent industry. In fact, there are no expected effects on production, employment, community stability, balance of trade or industry growth resulting from the proposed effluent limitations. Depending on the size of plant and subcategories present, increased costs of production ranging from about 0.6 to 11.0 percent are expected for point source plants. Factors which tend to negate impact of effluent limitations include:



(a) The soap and detergent industry serves an inelastic market with an annual growth of about 5 percent in which increased costs of production can be passed on to the consumer if excessive for internal absorption.

(b) Less than 5 percent of the industry will be affected by imposition of effluent limitations on point sources.

(c) Disadvantages to point sources resulting from imposition of effluent limitations will largely be offset by increased costs for discharge to municipal systems by other plants.

(d) Small producers generally serve a custom account market that is not serviced by large producers. This tends to negate the cost per unit of production penalty attributable to economics of size.

(e) The practice of marketing by brand name tends to negate shifts in sales that might result from variation in increased prices among products.

The report entitled "Development Document for Proposed Effluent Limitations Guidelines and New Source Performance Standards for the Soap and Detergent Manufacturing Point Source Category" details the analysis undertaken in support of the regulations being proposed herein and is available for inspection in the EPA Information Center, Room 227, West Tower, Waterside Mall, Washington, D.C., at all EPA regional offices, and at State water pollution control offices. A supplementary analysis prepared for EPA of the possible economic effects of the proposed regulations is also available for inspection at these locations. Copies of both of these documents are being sent to persons or institutions affected by the proposed regulations, or who have placed themselves on a mailing list for this purpose (see EPA's Advance Notice of Public Review Procedures, 38 FR 21202, August 6, 1973). An additional limited number of copies of both reports are available. Persons wishing to obtain a copy may write the EPA Information Center, Environmental Protection Agency, Washington, D.C. 20460, Attention: Mr. Philip B. Wisman.

#### SUMMARY OF PUBLIC PARTICIPATION

Prior to this publication, the agencies and groups listed below were consulted and given an opportunity to participate in the development of effluent limitations guidelines and standards proposed for the soap and detergent manufacturing category. All participating agencies have been informed of project developments. An initial draft of the Development Document was sent to all participants and comments were solicited on that report. The following are the principal agencies and groups consulted: (1) Effluent Standards and Water Quality Information Advisory Committee (established under section 515 of the Act); (2) all State and U.S. Territory Pollution Control Agencies; (3) The American Society of Civil Engineers; (4) Government of Guam Trust Territory of the Pacific Islands; (5) The American Society of Mechanical Engineers; (6) Hudson

River Sloop Restoration, Inc.; (7) The Conservation Foundation; (8) Environmental Defense Fund, Inc.; (9) Natural Resources Defense Council; (10) Water Pollution Control Federation; (11) National Wildlife Federation; (12) New England Interstate Water Pollution Control Commission; (13) Ohio River Valley Sanitation Commission; (14) Delaware River Basin Commission; (15) The Soap and Detergent Association; (16) Manufacturing Chemists Association; (17) U.S. Department of Commerce; (18) U.S. Department of the Interior; (19) The Water Resources Council; (20) The U.S. Department of Health, Education and Welfare; (21) The U.S. Department of Agriculture.

The following organizations responded with comments: Effluent Standards and Water Quality Information Advisory Committee; General Counsel of the Department of Commerce; United States Department of the Interior; United States Department of Agriculture; United States Department of Health, Education, and Welfare—Food and Drug Administration; California State Water Resources Control Board; Texas Water Quality Board; State of Maine Department of Environmental Protection; Illinois Environmental Protection Agency; Delaware River Basin Commission; State of New York Department of Environmental Conservation; United States Water Resources Council; Pennsylvania Division of Industrial Wastes and Erosion Regulation; The Soap and Detergent Association; Fatty Acid Producer's Council; Glyco Chemicals, Inc.; Stauffer Chemical Company; Texize Chemicals Company; Witco Chemical; and Proctor and Gamble Company.

The primary issues raised in the development of these proposed effluent limitations guidelines and standards of performance and the treatment of these issues herein are as follows:

(1) Additions to the controlled parameters (e.g., total dissolved solids, optic brighteners, bleaches, etc.) and deletion of oil and grease as a controlled parameter (based on redundancy to biochemical oxygen demand) were suggested. Upon re-examination of the controlled parameters, it has been concluded that the suggested additions are controlled by compliance with the proposed limitations or are present at such low levels as to be of no pollutional significance. While oils and greases are substances contributing to biochemical oxygen demand (and also chemical oxygen demand), they have a potential aesthetic impact that is unrelated to oxygen demand and their retention as a controlled parameter is justified.

(2) Several comments have been received that proper consideration has not been given to the impact of wastes on municipal systems and receiving waters and to do so the effluent limitation should be set in terms of concentration such as milligrams per liter or parts per million. Effluent guidelines are directed toward national control of point source discharges, not discharges to municipal

systems by existing sources or discharges to specific waterbodies. These are matters for consideration under section 302 (a) and section 307(b)(1) of Public Law 92-500. Moreover, concentration is a function of the degree of dilution, and without concurrent strict limitations on volume of discharge, concentration limits would exert little control over the load.

(3) Applicability of some technology suggested as appropriate for meeting 1983 guidelines and new source performance standards has been questioned. This is especially true for use of surface contact condensers and vacuum pumps to replace barometric condensers in splitting and refining fats. This technology is based on transfer from other industries with similar problems and is only one potential route suggested for meeting some of the 1983 limitations.

Interested persons may participate in this rulemaking by submitting written comments in triplicate to the EPA Information Center, Environmental Protection Agency, Washington, D.C. 20460, Attention: Mr. Philip B. Wisman. Comments on all aspects of the proposed regulations are solicited. In the event comments are in the nature of criticisms as to the adequacy of data which is available, or which may be relied upon by the Agency, comments should identify and, if possible, provide any additional data which may be available and should indicate why such data is essential to the development of the regulations. In the event comments address the approach taken by the agency in establishing an effluent limitation guideline or standard of performance, EPA solicits suggestions as to what alternative approach should be taken and why and how this alternative better satisfies the detailed requirements of sections 301, 304(b), 306, and 307 of the Act.

A copy of all public comments will be available for inspection and copying at the EPA Information Center, Room 227, West Tower, Waterside Mall, 401 M Street S.W., Washington, D.C. A copy of preliminary draft contractor reports, the Development Document and economic study referred to above and certain supplementary materials supporting the study of the industry concerned will also be maintained at this location for public review and copying. The EPA information regulation, 40 CFR Part 2, provides that a reasonable fee may be charged for copying.

All comments received on or before January 25, 1973 will be considered. Steps previously taken by the Environmental Protection Agency to facilitate public response within this time period are outlined in the advance notice concerning public review procedures published on August 6, 1973 (38 FR 21202).

Dated: December 7, 1973.

JOHN QUARLES,  
Acting Administrator.

It is proposed that 40 CFR Chapter I be amended by the addition of a new Part 417 to read as follows:



**PART 417—EFFLUENT LIMITATIONS GUIDELINES FOR EXISTING SOURCES AND STANDARDS OF PERFORMANCE AND PRETREATMENT STANDARDS FOR NEW SOURCES FOR THE SOAP AND DETERGENT MANUFACTURING POINT SOURCE CATEGORY**

**Subpart A—Soap Manufacturing By Batch Kettle Subcategory**

- Sec.  
417.10 Applicability; description of soap manufacturing by batch kettle subcategory.  
417.11 Specialized definitions.  
417.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.  
417.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.  
417.14 Standards of performance for new sources.  
417.15 Pretreatment standards for new sources.

**Subpart B—Fatty Acid Manufacturing By Fat Splitting Subcategory**

- Sec.  
417.20 Applicability; description of fatty acid manufacturing by fat splitting subcategory.  
417.21 Specialized definitions.  
417.22 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.  
417.23 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.  
417.24 Standards of performance for new sources.  
417.25 Pretreatment standards for new sources.

**Subpart C—Soap Manufacturing By Fatty Acid Neutralization Subcategory**

- Sec.  
417.30 Applicability; description of soap manufacturing by fatty acid neutralization subcategory.  
417.31 Specialized definitions.  
417.32 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.  
417.33 Effluent limitations guidelines representing the degree of effluent reduction attainable by application of the best available technology economically achievable.  
417.34 Standards of performance for new sources.  
417.35 Pretreatment standards for new sources.

**Subpart D—Glycerine Concentration Subcategory**

- Sec.  
417.40 Applicability; description of glycerine concentration subcategory.  
417.41 Specialized definitions.  
417.42 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.  
417.43 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

- Sec.  
417.44 Standards of performance for new sources.  
417.45 Pretreatment standards for new sources.

**Subpart E—Glycerine Distillation Subcategory**

- Sec.  
417.50 Applicability; description of glycerine distillation subcategory.  
417.51 Specialized definitions.  
417.52 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.  
417.53 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.  
417.54 Standards of performance for new sources.  
417.55 Pretreatment standards for new sources.

**Subpart F—Manufacture of Soap Flakes and Powders Subcategory**

- Sec.  
417.60 Applicability; description of manufacture of soap flakes and powders subcategory.  
417.61 Specialized definitions.  
417.62 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.  
417.63 Effluent limitations guidelines representing the degree of effluent reduction attainable by application of the best available technology economically achievable.  
417.64 Standards of performance for new sources.  
417.65 Pretreatment standards for new sources.

**Subpart G—Manufacture of Bar Soaps Subcategory**

- Sec.  
417.70 Applicability; description of manufacture of bar soaps subcategory.  
417.71 Specialized definitions.  
417.72 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.  
417.73 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.  
417.74 Standards of performance for new sources.  
417.75 Pretreatment standards for new sources.

**Subpart H—Manufacture of Liquid Soaps Subcategory**

- Sec.  
417.80 Applicability; description of manufacture of liquid soaps subcategory.  
417.81 Specialized definitions.  
417.82 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.  
417.83 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.  
417.84 Standards of performance for new sources.  
417.85 Pretreatment standards for new sources.

**Subpart I—Oleum Sulfonation and Sulfation Subcategory**

- Sec.  
417.90 Applicability; description of oleum sulfonation and sulfation subcategory.  
417.91 Specialized definitions.  
417.92 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.  
417.93 Effluent limitations guidelines representing the degree of effluent reduction attainable by application of the best available technology economically achievable.  
417.94 Standards of performance for new sources.  
417.95 Pretreatment standards for new sources.

**Subpart J—Air-SO<sub>3</sub> Sulfation and Sulfonation Subcategory**

- 417.100 Applicability; description of air SO<sub>3</sub> sulfonation subcategory.  
417.101 Specialized definitions.  
417.102 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.  
417.103 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.  
417.104 Standards of performance for new sources.  
417.105 Pretreatment standards for new sources.

**Subpart K—SO<sub>3</sub> Solvent and Vacuum Sulfonation Subcategory**

- 417.110 Applicability; description of SO<sub>3</sub> solvent and vacuum sulfonation subcategory.  
417.111 Specialized definitions.  
417.112 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.  
417.113 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.  
417.114 Standards of performance for new sources.  
417.115 Pretreatment standards for new sources.

**Subpart L—Sulfamic Acid Sulfation Subcategory**

- 417.120 Applicability; description of sulfamic acid sulfation subcategory.  
417.121 Specialized definitions.  
417.122 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.  
417.123 Effluent limitations guidelines representing the degree of effluent reduction attainable by application of the best available technology economically achievable.  
417.124 Standards of performance for new sources.  
417.125 Pretreatment standards for new sources.

**Subpart M—Chlorosulfonic Acid Sulfation Subcategory**

- Sec.  
417.130 Applicability; description of chlorosulfonic acid sulfation subcategory.



- Sec.  
417.131 Specialized definitions.
- 417.132 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 417.133 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 417.134 Standards of performance for new sources.
- 417.135 Pretreatment standards for new sources.

#### Subpart N—Neutralization of Sulfuric Acid Esters and Sulfonic Acids Subcategory

- Sec.  
417.140 Applicability; description of neutralization of sulfuric acid esters and sulfonic acids subcategory.
- 417.141 Specialized definitions.
- 417.142 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 417.143 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 417.144 Standards of performance for new sources.
- 417.145 Pretreatment standards for new sources.

#### Subpart O—Manufacture of Spray Dried Detergents Subcategory

- Sec.  
417.150 Applicability; description of manufacture of spray dried detergents subcategory.
- 417.151 Specialized definitions.
- 417.152 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 417.153 Effluent limitations guidelines representing the degree of effluent reduction attainable by application of the best available technology economically achievable.
- 417.154 Standards of performance for new sources.
- 417.155 Pretreatment standards for new sources.

#### Subpart P—Manufacture of Liquid Detergents Subcategory

- Sec.  
417.160 Applicability; description of manufacture of liquid detergents subcategory.
- 417.161 Specialized definitions.
- 417.162 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 417.163 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 417.164 Standards of performance for new sources.
- 417.165 Pretreatment standards for new sources.

#### Subpart Q—Manufacture of Detergents by Dry Blending Subcategory

- Sec.  
417.170 Applicability; description of manufacture of detergents by dry blending subcategory.
- 417.171 Specialized definitions.
- 417.172 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 417.173 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 417.174 Standards of performance for new sources.
- 417.175 Pretreatment standards for new sources.

#### Subpart R—Manufacture of Drum Dried Detergents Subcategory

- Sec.  
417.180 Applicability; description of manufacture of drum dried detergents subcategory.
- 417.181 Specialized definitions.
- 417.182 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 417.183 Effluent limitations guidelines representing the degree of effluent reduction attainable by application of the best available technology economically achievable.
- 417.184 Standards of performance for new sources.
- 417.185 Pretreatment standards for new sources.

#### Subpart S—Manufacture of Detergent Bars and Cakes Subcategory

- Sec.  
417.190 Applicability; description of manufacture of detergent bars and cakes subcategory.
- 417.191 Specialized definitions.
- 417.192 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 417.193 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 417.194 Standards of performance for new sources.
- 417.195 Pretreatment standards for new sources.

#### Subpart A—Soap Manufacturing by Batch Kettle Subcategory

- § 417.10 Applicability; description of soap manufacturing by batch kettle subcategory.

The provisions of this subpart are applicable to discharges resulting from operations in which neat soap is produced through saponification of animal and vegetable fats and oils by boiling in kettles.

#### § 417.11 Specialized definitions.

For the purpose of this subpart:

(a) the term "anhydrous product" shall mean the theoretical product that

would result if all water were removed from the actual product.

(b) the term "oil & grease" shall mean those components of a waste water amenable to measurement by the method described in "1972 Annual Book of ASTM Standards, Part 23," 1972, Standard D1783-70, page 445.

(c) the term "neat soap" shall mean the solution of completely saponified and purified soap containing about 20-30 percent water which is ready for final formulation into a finished product.

(d) the following abbreviations shall have the following meanings: (1) "BOD5" shall mean five day biochemical oxygen demand; (2) "COD" shall mean chemical oxygen demand; (3) "kg" shall mean kilogram(s); (4) "kkg" shall mean 1000 kilograms; (5) "lb" shall mean pound(s); and (6) "TSS" shall mean total suspended non-filterable solids.

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

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after application of best practicable control technology currently available by a point source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitation
BOD5	Maximum for any one day 0.80 kg/kkg of anhydrous product (0.80 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.60 kg/kkg of anhydrous product (0.60 lb/1000 lb).
COD	Maximum for any one day 2.25 kg/kkg of anhydrous product (2.25 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 1.50 kg/kkg of anhydrous product (1.50 lb/1000 lb).
TSS	Maximum for any one day 0.60 kg/kkg of anhydrous product (0.60 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.40 kg/kkg of anhydrous product (0.40 lb/1000 lb).
Oil and grease	Maximum for any one day 0.15 kg/kkg of anhydrous product (0.15 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.10 kg/kkg of anhydrous product (0.10 lb/1000 lb).
pH	Within the range of 6.0 to 9.0.

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

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after application of the best available technology economically



achievable by a point source subject to the provisions of this subpart:

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
BOD <sub>5</sub> -----	Maximum for any one day 0.50 kg/kg of anhydrous product (0.50 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.40 kg/kg of anhydrous product (0.40 lb/1000 lb).
COD-----	Maximum for any one day 1.25 kg/kg of anhydrous product (1.25 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 1.05 kg/kg of anhydrous product (1.05 lb/1000 lb).
TSS-----	Maximum for any one day 0.50 kg/kg of anhydrous product (0.50 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.40 kg/kg of anhydrous product (0.40 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.07 kg/kg of anhydrous product (0.07 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb).
pH-----	Within the range of 6.0 to 9.0.

#### § 417.14 Standards of performance for new sources.

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged reflecting the greatest degree of effluent reduction achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants by a new point source subject to the provisions of this subpart:

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
BOD <sub>5</sub> -----	Maximum for any one day 0.40 kg/kg of anhydrous product (0.40 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.20 kg/kg of anhydrous product (0.20 lb/1000 lb).
COD-----	Maximum for any one day 1.20 kg/kg of anhydrous product (1.20 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.60 kg/kg of anhydrous product (0.60 lb/1000 lb).
TSS-----	Maximum for any one day 0.04 kg/kg of anhydrous product (0.04 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.07 kg/kg of anhydrous product (0.07 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb).

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
pH-----	Within the range of 6.0 to 9.0.

#### § 417.15 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act, for a source within the soap manufacturing by batch kettle subcategory which is an industrial 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 navigable waters), shall be the standard set forth in Part 128 of this chapter, except that for the purposes of this section, § 128.133 of this chapter, shall be amended to read as follows:

In addition to the prohibitions set forth in § 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works by a major contributing industry shall be the standard of performance for new sources specified in § 417.14 of this chapter; 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 be correspondingly reduced for that pollutant.

#### Subpart B—Fatty Acid Manufacturing by Fat Splitting Subcategory

##### § 417.20 Applicability; description of fatty acid manufacturing by fat splitting subcategory.

The provisions of this subpart are applicable to discharges resulting from splitting of fats to fatty acids by hydrolysis and the subsequent processing of the fatty acids (e.g., refining and hydrogenation) to produce a suitable feed material for manufacture of soap by fatty acid neutralization.

##### § 417.21 Specialized definitions.

For the purpose of this subpart:

(a) the term "anhydrous product" shall mean the theoretical product that would result if all water were removed from the actual product.

(b) the term "oil & grease" shall mean those components of a waste water amenable to measurement by the method described in "1972 Annual Book of ASTM Standards, Part 23," 1972, Standard D1783-70, page 445.

(c) the following abbreviations shall have the following meanings: (1) "BOD<sub>5</sub>" shall mean five day biochemical oxygen demand; (2) "COD" shall mean chemical oxygen demand; (3) "kg" shall mean kilogram(s); (4) "kkg" shall mean 1000 kilograms; (5) "lb" shall mean pound(s); and (6) "TSS" shall mean total suspended non-filterable solids.

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

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after application of best practicable control technology currently avail-

able by a point source subject to the provisions of this subpart:

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
BOD <sub>5</sub> -----	Maximum for any one day 2.40 kg/kg of anhydrous product (2.40 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 1.20 kg/kg of anhydrous product (1.20 lb/1000 lb).
COD-----	Maximum for any one day 6.60 kg/kg of anhydrous product (6.60 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 3.30 kg/kg of anhydrous product (3.30 lb/1000 lb).
TSS-----	Maximum for any one day 4.40 kg/kg of anhydrous product (4.40 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 2.20 kg/kg of anhydrous product (2.20 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.60 kg/kg of anhydrous product (0.60 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.30 kg/kg of anhydrous product (0.30 lb/1000 lb).
pH-----	Within the range of 6.0 to 9.0.

(a) If refined fatty acids are hydrogenerated the following additional allowances shall apply:

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
BOD <sub>5</sub> -----	Maximum for any one day 0.20 kg/kg of anhydrous product (0.20 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.15 kg/kg of anhydrous product (0.15 lb/1000 lb).
COD-----	Maximum for any one day 0.35 kg/kg of anhydrous product (0.35 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.25 kg/kg of anhydrous product (0.25 lb/1000 lb).
TSS-----	Maximum for any one day 0.15 kg/kg of anhydrous product (0.15 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.15 kg/kg of anhydrous product (0.15 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb).
pH-----	Within the range of 6.0 to 9.0.

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

The following limitations constitute the quantity or quality of pollutants or



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

Effluent characteristic	Effluent limitation
BOD5 -----	Maximum for any one day 0.50 kg/kg of anhydrous product (0.50 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.25 kg/kg of anhydrous product (0.25 lb/1000 lb).
COD -----	Maximum for any one day 1.80 kg/kg of anhydrous product (1.80 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.90 kg/kg of anhydrous product (0.90 lb/1000 lb).
TSS -----	Maximum for any one day 0.40 kg/kg of anhydrous product (0.40 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.20 kg/kg of anhydrous product (0.20 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.30 kg/kg of anhydrous product (0.30 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.15 kg/kg of anhydrous product (0.15 lb/1000 lb).
pH -----	Within the range of 6.0 to 9.0.

(a) If refined fatty acids are hydrogenated the following additional allowances shall apply:

Effluent characteristic	Effluent limitation
BOD5 -----	Maximum for any one day 0.15 kg/kg of anhydrous product (0.15 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.15 kg/kg of anhydrous product (0.15 lb/1000 lb).
COD -----	Maximum for any one day 0.25 kg/kg of anhydrous product (0.25 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.25 kg/kg of anhydrous product (0.25 lb/1000 lb).
TSS -----	Maximum for any one day 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb).
pH -----	Within the range of 6.0 to 9.0.

#### § 417.24 Standards of performance for new sources.

The following limitations constitute the quantity or quality of pollutants or

pollutant properties which may be discharged reflecting the greatest degree of effluent reduction achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants by a new point source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitation
BOD5 -----	Maximum for any one day 0.50 kg/kg of anhydrous product (0.50 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.25 kg/kg of anhydrous product (0.25 lb/1000 lb).
COD -----	Maximum for any one day 1.80 kg/kg of anhydrous product (1.80 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.90 kg/kg of anhydrous product (0.90 lb/1000 lb).
TSS -----	Maximum for any one day 0.40 kg/kg of anhydrous product (0.40 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.20 kg/kg of anhydrous product (0.20 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.30 kg/kg of anhydrous product (0.30 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.15 kg/kg of anhydrous product (0.15 lb/1000 lb).
pH -----	Within the range of 6.0 to 9.0.

(a) If refined fatty acids are hydrogenated the following additional allowances shall apply:

Effluent characteristic	Effluent limitation
BOD5 -----	Maximum for any one day 0.15 kg/kg of anhydrous product (0.15 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.15 kg/kg of anhydrous product (0.15 lb/1000 lb).
COD -----	Maximum for any one day 0.25 kg/kg of anhydrous product (0.25 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.25 kg/kg of anhydrous product (0.25 lb/1000 lb).
TSS -----	Maximum for any one day 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb).
pH -----	Within the range of 6.0 to 9.0.

#### § 417.25 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act, for a source within the fatty acid manufacturing by fat splitting subcategory which is an industrial 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 navigable waters), shall be the standard set forth in Part 128 of this chapter, except that for the purposes of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in § 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works by a major contributing industry shall be the standard of performance for new sources specified in § 417.24 of this chapter; 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 be correspondingly reduced for that pollutant.

#### Subpart C—Soap Manufacturing by Fatty Acid Neutralization Subcategory

##### § 417.30 Applicability; description of soap manufacturing by fatty acid neutralization subcategory.

The provisions of this subpart are applicable to discharges resulting from manufacturing of neat soap by neutralizing refined fatty acids with an alkaline material in approximately stoichiometric amounts in batch or continuous operations.

##### § 417.31 Specialized definitions.

For the purpose of this subpart:

(a) the term "anhydrous product" shall mean the theoretical product that would result if all water were removed from the actual product.

(b) the term "oil & grease" shall mean those components of a waste water amenable to measurement by the method described in "1972 Annual Book of ASTM Standards, Part 23," 1972, Standard D1783-70, page 445.

(c) the term "neat soap" shall mean the solution of completely saponified and purified soap containing about 20-30 percent water which is ready for final formulation into a finished product.

(d) the following abbreviations shall have the following meanings: (1) "BOD5" shall mean five day biochemical oxygen demand; (2) "COD" shall mean chemical oxygen demand; (3) "kg" shall mean kilogram(s); (4) "kgg" shall mean 1000 kilograms; (5) "lb" shall mean pound(s); and (6) "TSS" shall mean total suspended non-filterable solids.

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

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after application of best practicable control technology currently



available by a point source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitation
BOD <sub>5</sub> -----	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
COD-----	Maximum for any one day 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb).
TSS-----	Maximum for any one day 0.04 kg/kg of anhydrous product (0.04 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
pH-----	Within the range of 6.0 to 9.0.

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

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

Effluent characteristic	Effluent limitation
BOD <sub>5</sub> -----	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
COD-----	Maximum for any one day 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb).
TSS-----	Maximum for any one day 0.04 kg/kg of anhydrous product (0.04 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).

Effluent characteristic	Effluent limitation
pH-----	Within the range of 6.0 to 9.0.

§ 417.34 Standards of performance for new sources.

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged reflecting the greatest degree of effluent reduction achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants by a new point source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitation
BOD <sub>5</sub> -----	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
COD-----	Maximum for any one day 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb).
TSS-----	Maximum for any one day 0.04 kg/kg of anhydrous product (0.04 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
pH-----	Within the range of 6.0 to 9.0.

§ 417.35 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act, for a source within the fatty acid neutralization subcategory which is an industrial 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 navigable waters), shall be the standard set forth in Part 128 of the chapter except that for the purposes of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in § 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works by a major contributing industry shall be the standard of performance for new sources specified in § 417.34 of this chapter: *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 be correspondingly reduced for that pollutant.

#### Subpart D—Glycerine Concentration Subcategory

§ 417.40 Applicability; description of glycerine concentration subcategory.

The provisions of this subpart are applicable to discharges resulting from concentration of sweet water from saponification or fat splitting to approximately 60 to 80 percent crude glycerine content.

§ 417.41 Specialized definitions.

For the purpose of this subpart: (a) the term "anhydrous product" shall mean the theoretical product that would result if all water were removed from the actual product.

(b) the term "oil and grease" shall mean those components of a waste water amenable to measurement by the method described in "1972 Annual Book of ASTM Standards, Part 23," 1972, Standard D1783-70, page 445.

(c) the term "sweet water" shall mean the solution of 8-10 percent crude glycerine and 90-92 percent water that is a by-product of saponification or fat splitting.

(d) the following abbreviations shall have the following meanings: (1) "BOD<sub>5</sub>" shall mean five day biochemical oxygen demand; (2) "COD" shall mean chemical oxygen demand; (3) "kg" shall mean kilogram(s); (4) "kkg" shall mean 1000 kilograms; (5) "lb" shall mean pound(s); and (6) "TSS" shall mean total suspended non-filterable solids.

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

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after application of best practicable control technology currently available by a point source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitation
BOD <sub>5</sub> -----	Maximum for any one day 2.25 kg/kg of anhydrous product (2.25 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 1.50 kg/kg of anhydrous product (1.50 lb/1000 lb).
COD-----	Maximum for any one day 6.50 kg/kg of anhydrous product (6.50 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 4.50 kg/kg of anhydrous product (4.50 lb/1000 lb).
TSS-----	Maximum for any one day 0.30 kg/kg of anhydrous product (0.30 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.20 kg/kg of anhydrous product (0.20 lb/1000 lb).



<i>Effluent characteristic</i>	<i>Effluent limitation</i>
Oil and Grease.	Maximum for any one day 0.15 kg/kg of anhydrous product (0.15 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb).
pH	Within the range of 6.0 to 9.0.

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

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be dischargeable after application of best practicable control technology currently available by a point source subject to the provisions of this subpart:

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
BOD <sub>5</sub>	Maximum for any one day 0.50 kg/kg of anhydrous product (0.50 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.40 kg/kg of anhydrous product (0.40 lb/1000 lb).
COD	Maximum for any one day 1.50 kg/kg of anhydrous product (1.50 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 1.20 kg/kg of anhydrous product (1.20 lb/1000 lb).
TSS	Maximum for any one day 0.12 kg/kg of anhydrous product (0.12 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.04 kg/kg of anhydrous product (0.04 lb/1000 lb).
pH	Within the range of 6.0 to 9.0.

**§ 417.44 Standards of performance for new sources.**

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged reflecting the greatest degree of effluent reduction achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants by a new point source subject to the provisions of this subpart:

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
BOD <sub>5</sub>	Maximum for any one day 0.50 kg/kg of anhydrous product (0.50 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.40 kg/kg of anhydrous product (0.40 lb/1000 lb).

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
COD	Maximum for any one day 1.50 kg/kg of anhydrous product (1.50 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 1.20 kg/kg of anhydrous product (1.20 lb/1000 lb).
TSS	Maximum for any one day 0.12 kg/kg of anhydrous product (0.12 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.04 kg/kg of anhydrous product (0.04 lb/1000 lb).
pH	Within the range of 6.0 to 9.0.

**§ 417.45 Pretreatment standards for new sources.**

The pretreatment standards under section 307(c) of the Act, for a source within the glycerine concentration subcategory which is an industrial 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 navigable waters), shall be the standard set forth in Part 128 of this chapter except that for the purposes of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in § 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works by a major contributing industry shall be the standard of performance for new sources specified in § 417.44 of this chapter; *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 be correspondingly reduced for that pollutant.

**Subpart E—Glycerine Distillation Subcategory**

**§ 417.50 Applicability; description of glycerine distillation subcategory.**

The provisions of this subpart are applicable to discharges resulting from production of finished glycerine of various grades (e.g. USP) concentrated from crude glycerine by means of distillation.

**§ 417.51 Specialized definitions.**

For the purpose of this subpart:

(a) the term "anhydrous product" shall mean the theoretical product that would result if all water were removed from the actual product.

(b) the term "oil and grease" shall mean those components of a waste water amenable to measurement by the method described in "1972 Annual Book of ASTM Standards, Part 23," 1972, Standard D1783-70, page 445.

(c) the following abbreviations shall have the following meanings: (1) "BOD<sub>5</sub>" shall mean five day biochemical oxygen demand; (2) "COD" shall mean chemical oxygen demand; (3) "kg" shall mean kilogram(s); (4) "kkg" shall mean 1000 kilograms; (5) "lb" shall mean pound(s); and (6) "TSS" shall mean total suspended non-filterable solids.

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

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after application of best practicable control technology currently available by a point source subject to the provisions of this subpart:

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
BOD <sub>5</sub>	Maximum for any one day 0.75 kg/kg of anhydrous product (0.75 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.50 kg/kg of anhydrous product (0.50 lb/1000 lb).
COD	Maximum for any one day 2.25 kg/kg of anhydrous product (2.25 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 1.50 kg/kg of anhydrous product (1.50 lb/1000 lb).
TSS	Maximum for any one day 0.30 kg/kg of anhydrous product (0.30 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.20 kg/kg of anhydrous product (0.20 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.15 kg/kg of anhydrous product (0.15 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb).
pH	Within the range of 6.0 to 9.0.

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

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

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
BOD <sub>5</sub>	Maximum for any one day 0.40 kg/kg of anhydrous product (0.40 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.30 kg/kg of anhydrous product (0.30 lb/1000 lb).



<i>Effluent characteristic</i>	<i>Effluent limitation</i>
COD	Maximum for any one day 1.20 kg/kg of anhydrous product (1.20 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.90 kg/kg of anhydrous product (0.90 lb/1000 lb).
TSS	Maximum for any one day 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.04 kg/kg of anhydrous product (0.04 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb).
pH	Within the range of 6.0 to 9.0.

#### § 417.54 Standards of performance for new sources.

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged reflecting the greatest degree of effluent reduction achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants by a new point source subject to the provisions of this subpart:

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
BOD <sub>5</sub>	Maximum for any one day 0.40 kg/kg of anhydrous product (0.40 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.30 kg/kg of anhydrous product (0.30 lb/1000 lb).
COD	Maximum for any one day 1.20 kg/kg of anhydrous product (1.20 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.90 kg/kg of anhydrous product (0.90 lb/1000 lb).
TSS	Maximum for any one day 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.04 kg/kg of anhydrous product (0.04 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb).
pH	Within the range of 6.0 to 9.0.

#### § 417.55 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act, for a source within the glycerine distillation subcategory which is an industrial 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 navigable waters), shall be the standard set forth in Part 128 of this chapter except that for the purposes of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in § 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works by a major contributing industry shall be the standard of performance for new sources specified in § 417.54 of this chapter; 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 be correspondingly reduced for that pollutant.

#### Subpart F—Manufacture of Soap Flakes and Powders Subcategory

##### § 417.60 Applicability; description of soap flakes and powders subcategory.

The provisions of this subpart are applicable to discharges resulting from all operations associated with the manufacture of soap flakes and powders, commencing with the drying of the neat soap to and including packaging of the finished flakes and powders.

##### § 417.61 Specialized definitions.

For the purpose of this subpart:

(a) the term "anhydrous product" shall mean the theoretical product that would result if all water were removed from the actual product.

(b) the term "oil & grease" shall mean those components of a waste water amenable to measurement by the method described in "1972 Annual Book of ASTM Standards, Part 23," 1972, Standard D1783-70, page 445.

(c) the following abbreviations shall have the following meanings: (1) "BOD<sub>5</sub>" shall mean five day biochemical oxygen demand; (2) "COD" shall mean chemical oxygen demand; (3) "kg" shall mean kilogram(s); (4) "kkg" shall mean 1000 kilograms; (5) "lb" shall mean pound(s); and (6) "TSS" shall mean total suspended non-filterable solids.

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

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after application of best practicable control technology currently available by a point source subject to the provisions of this subpart:

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
BOD <sub>5</sub>	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
COD	Maximum for any one day 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb).
TSS	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
pH	Within the range of 6.0 to 9.0.

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

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

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
BOD <sub>5</sub>	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
COD	Maximum for any one day 0.07 kg/kg of anhydrous product (0.07 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb).
TSS	Maximum for any one day 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
pH	Within the range of 6.0 to 9.0.

##### § 417.64 Standards of performance for new sources.

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged reflecting the greatest degree of effluent reduction achievable through application of the best available demonstrated control technology, processes,



operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants by a new point source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitation
BOD5 -----	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
COD -----	Maximum for any one day 0.07 kg/kg of anhydrous product (0.07 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb).
TSS -----	Maximum for any one day 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
pH -----	Within the range of 6.0 to 9.0.

#### § 417.65 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act, for a source within the manufacture of soap flakes and powders subcategory which is an industrial 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 navigable waters), shall be the standard set forth in Part 128 of this chapter, except that for the purposes of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in § 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works by a major contributing industry shall be the standard of performance for new sources specified in § 417.64 of this chapter; *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 be correspondingly reduced for that pollutant.

#### Subpart G—Manufacture of Bar Soaps Subcategory

#### § 417.70 Applicability; description of manufacture of bar soaps subcategory.

The provisions of this subpart are applicable to discharges resulting from all

operations associated with conversion of neat soap to finished bar soaps, including drying, milling, plodding, stamping and packaging.

#### § 417.71 Specialized definitions.

For the purpose of this subpart:

(a) the term "anhydrous product" shall mean the theoretical product that would result if all water were removed from the actual product.

(b) the term "oil & grease" shall mean those components of a waste water amenable to measurement by the method described in "1972 Annual Book of ASTM Standards, Part 23," 1972, Standard D1783-70, page 445.

(c) the term "neat soap" shall mean the solution of completely saponified and purified soap containing about 20-30 percent water which is ready for final formulation into a finished product.

(d) the following abbreviations shall have the following meanings: (1) "BOD5" shall mean five day biochemical oxygen demand; (2) "COD" shall mean chemical oxygen demand; (3) "kg" shall mean kilogram(s); (4) "kkg" shall mean 1000 kilograms; (5) "lb" shall mean pound(s); and (6) "TSS" shall mean total suspended non-filterable solids.

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

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after application of best practicable control technology currently available by a point source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitation
BOD5 -----	Maximum for any one day 0.50 kg/kg of anhydrous product (0.50 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.24 kg/kg of anhydrous product (0.24 lb/1000 lb).
COD -----	Maximum for any one day 1.25 kg/kg of anhydrous product (1.25 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.85 kg/kg of anhydrous product (0.85 lb/1000 lb).
TSS -----	Maximum for any one day 0.85 kg/kg of anhydrous product (0.85 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.58 kg/kg of anhydrous product (0.58 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.06 kg/kg of anhydrous product (0.06 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.04 kg/kg of anhydrous product (0.04 lb/1000 lb).
pH -----	Within the range of 6.0 to 9.0.

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

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

Effluent characteristic	Effluent limitation
BOD5 -----	Maximum for any one day 0.25 kg/kg of anhydrous product (0.25 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.20 kg/kg of anhydrous product (0.20 lb/1000 lb).
COD -----	Maximum for any one day 0.75 kg/kg of anhydrous product (0.75 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.60 kg/kg of anhydrous product (0.60 lb/1000 lb).
TSS -----	Maximum for any one day 0.40 kg/kg of anhydrous product (0.40 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.34 kg/kg of anhydrous product (0.34 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.04 kg/kg of anhydrous product (0.04 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.03 kg/kg of anhydrous product (0.03 lb/1000 lb).
pH -----	Within the range of 6.0 to 9.0.

#### § 417.74 Standards of performance for new sources.

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged reflecting the greatest degree of effluent reduction achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants by a new point source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitation
BOD5 -----	Maximum for any one day 0.25 kg/kg of anhydrous product (0.25 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.20 kg/kg of anhydrous product (0.20 lb/1000 lb).
COD -----	Maximum for any one day 0.75 kg/kg of anhydrous product (0.75 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.60 kg/kg of anhydrous product (0.60 lb/1000 lb).



Effluent characteristic	Effluent limitation
TSS	Maximum for any one day 0.40 kg/kg of anhydrous product (0.40 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.34 kg/kg of anhydrous product (0.34 lb/1000 lb).
Oil and Grease	Maximum for any one day 0.04 kg/kg of anhydrous product (0.04 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.03 kg/kg of anhydrous product (0.03 lb/1000 lb).
pH	Within the range of 6.0 to 9.0.

#### § 417.75 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act, for a source within the bar soaps subcategory which is an industrial 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 navigable waters), shall be the standard set forth in Part 128 of this chapter except that for the purposes of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in § 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works by a major contributing industry shall be the standard of performance for new sources specified in § 417.74 of this chapter; 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 be correspondingly reduced for that pollutant.

#### Subpart H—Manufacture of Liquid Soaps Subcategory

##### § 417.80 Applicability; description of manufacture of liquid soaps subcategory.

The provisions of this subpart are applicable to discharges resulting from the blending of ingredients employed in the manufacture of liquid soaps and the packaging of the finished products.

##### § 417.81 Specialized definitions.

For the purpose of this subpart:

(a) the term "anhydrous product" shall mean the theoretical product that would result if all water were removed from the actual product.

(b) the term "oil and grease" shall mean those components of a waste water amenable to measurement by the method described in "1972 Annual Book of ASTM Standards, Part 23," 1972, Standard D1783-70, page 445.

(c) the following abbreviations shall have the following meanings: (1) "BOD5" shall mean five day biochemical oxygen demand; (2) "COD" shall mean chemical oxygen demand; (3) "kg" shall mean kilogram(s); (4) "kkg" shall mean 1000 kilograms; (5) "lb" shall mean pound(s); and (6) "TSS"

shall mean total suspended non-filterable solids.

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

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after application of best practicable control technology currently available by a point source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitation
BOD5	Maximum for any one day 0.03 kg/kg of anhydrous product (0.03 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
COD	Maximum for any one day 0.15 kg/kg of anhydrous product (0.15 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb).
TSS	Maximum for any one day 0.03 kg/kg of anhydrous product (0.03 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
Oil and Grease	Maximum for any one day 0.03 kg/kg of anhydrous product (0.03 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
pH	Within the range of 6.0 to 9.0.

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

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

Effluent characteristic	Effluent limitation
BOD5	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
COD	Maximum for any one day 0.07 kg/kg of anhydrous product (0.07 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb).

Effluent characteristic	Effluent limitation
TSS	Maximum for any one day 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
Oil and Grease	Maximum for any one day 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
pH	Within the range of 6.0 to 9.0.

##### § 417.84 Standards of performance for new sources.

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged reflecting the greatest degree of effluent reduction achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants by a new point source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitation
BOD5	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
COD	Maximum for any one day 0.07 kg/kg of anhydrous product (0.07 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb).
TSS	Maximum for any one day 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
Oil and Grease	Maximum for any one day 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
pH	Within the range of 6.0 to 9.0.

##### § 417.85 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act, for a source within the liquid soaps subcategory which is an industrial 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 navigable waters), shall be the standard set forth in Part 128 of this



chapter except that for the purposes of his section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in § 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works by a major contributing industry shall be the standard of performance for new sources specified in § 417.84 of this chapter; *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 be correspondingly reduced for that pollutant.

#### Subpart I—Oleum Sulfonation and Sulfation Subcategory

#### § 417.90 Applicability: description of oleum sulfonation and sulfation subcategory.

The provisions of this subpart are applicable to discharges resulting from the manufacture of sulfonic acid and sulfuric acid esters by means of sulfonation and sulfation of raw material, including but not limited to petroleum derived alkyls, employing oleum in either continuous or batch processes.

#### § 417.91 Specialized definitions.

For the purpose of this subpart:

(a) the term "anhydrous product" shall mean the theoretical product that would result if all water were removed from the actual product.

(b) the term "oil & grease" shall mean those components of a waste water amenable to measurement by the method described in "1972 Annual Book of ASTM Standards, Part 23," 1972, Standard D1783-70, page 445.

(c) the term "surfactant" shall mean those methylene blue active substances amenable to measurement by the method described in "Methods for Chemical Analysis of Water and Wastes," 1971, Environmental Protection Agency, Analytical Quality Control Laboratory, page 131.

(d) the following abbreviations shall have the following meanings: (1) "BOD<sub>5</sub>" shall mean five day biochemical oxygen demand; (2) "COD" shall mean chemical oxygen demand; (3) "kg" shall mean kilogram(s); (4) "kkg" shall mean 1000 kilograms; (5) "lb" shall mean pound(s); and (6) "TSS" shall mean total suspended non-filterable solids.

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

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after application of best practicable control technology currently available by a point source subject to the provisions of this subpart:

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
BOD <sub>5</sub> -----	Maximum for any one day 0.09 kg/kkg of anhydrous product (0.09 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kkg of anhydrous product (0.02 lb/1000 lb).
COD-----	Maximum for any one day 0.40 kg/kkg of anhydrous product (0.40 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.09 kg/kkg of anhydrous product (0.09 lb/1000 lb).
TSS-----	Maximum for any one day 0.15 kg/kkg of anhydrous product (0.15 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.03 kg/kkg of anhydrous product (0.03 lb/1000 lb).
Surfactants----	Maximum for any one day 0.15 kg/kkg of anhydrous product (0.15 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.03 kg/kkg of anhydrous product (0.03 lb/1000 lb).
Oil and Grease--	Maximum for any one day 0.25 kg/kkg of anhydrous product (0.25 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.07 kg/kkg of anhydrous product (0.07 lb/1000 lb).
pH-----	Within the range of 6.0 to 9.0.

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

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

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
BOD <sub>5</sub> -----	Maximum for any one day 0.07 kg/kkg of anhydrous product (0.07 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kkg of anhydrous product (0.02 lb/1000 lb).
COD-----	Maximum for any one day 0.27 kg/kkg of anhydrous product (0.27 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.09 kg/kkg of anhydrous product (0.09 lb/1000 lb).
TSS-----	Maximum for any one day 0.09 kg/kkg of anhydrous product (0.09 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.03 kg/kkg of anhydrous product (0.03 lb/1000 lb).

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
Surfactants----	Maximum for any one day 0.09 kg/kkg of anhydrous product (0.09 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.03 kg/kkg of anhydrous product (0.03 lb/1000 lb).
Oil and Grease--	Maximum for any one day 0.21 kg/kkg of anhydrous product (0.21 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.07 kg/kkg of anhydrous product (0.07 lb/1000 lb).
pH-----	Within the range of 6.0 to 9.0.

#### § 417.94 Standards of performance for new sources.

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged reflecting the greatest degree of effluent reduction achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants by a new point source subject to the provisions of this subpart:

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
BOD <sub>5</sub> -----	Maximum for any one day 0.03 kg/kkg of anhydrous product (0.03 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kkg of anhydrous product (0.01 lb/1000 lb).
COD-----	Maximum for any one day 0.09 kg/kkg of anhydrous product (0.09 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.03 kg/kkg of anhydrous product (0.03 lb/1000 lb).
TSS-----	Maximum for any one day 0.06 kg/kkg of anhydrous product (0.06 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kkg of anhydrous product (0.02 lb/1000 lb).
Surfactants----	Maximum for any one day 0.03 kg/kkg of anhydrous product (0.03 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kkg of anhydrous product (0.01 lb/1000 lb).
Oil and Grease--	Maximum for any one day 0.12 kg/kkg of anhydrous product (0.12 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.04 kg/kkg of anhydrous product (0.04 lb/1000 lb).
pH-----	Within the range of 6.0 to 9.0.

#### § 417.95 Pretreatment standards for new sources.

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



within the oleum sulfonation and sulfonation subcategory which is an industrial 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 navigable waters), shall be the standard set forth in Part 128 of this chapter except that for the purposes of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in § 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works by a major contributing industry shall be the standard of performance for new sources specified in § 417.94 of this chapter; 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 be correspondingly reduced for that pollutant.

#### Subpart J—Air SO<sub>3</sub> Sulfation and Sulfonation Subcategory

##### § 417.100 Applicability; description of air SO<sub>3</sub> sulfation and sulfonation subcategory.

The provisions of this subpart are applicable to discharges resulting from the manufacture of sulfonic acid and sulfuric acid esters by means of sulfation and sulfonation employing air and sulfur trioxide SO<sub>3</sub>, in either continuous or batch processes.

##### § 417.101 Specialized definitions.

For the purpose of this subpart:

(a) the term "anhydrous product" shall mean the theoretical product that would result if all water were removed from the actual product.

(b) the term "oil and grease" shall mean those components of a waste water amenable to measurement by the method described in "1972 Annual Book of ASTM Standards, Part 23," 1972, Standard D1783-70, page 445.

(c) the term "surfactant" shall mean those methylene blue active substances amenable to measurement by the method described in "Methods for Chemical Analysis of Water and Wastes," 1971, Environmental Protection Agency, Analytical Quality Control Laboratory, page 131.

(d) the following abbreviations shall have the following meanings: (1) "BOD<sub>5</sub>" shall mean five day biochemical oxygen demand; (2) "COD" shall mean chemical oxygen demand; (3) "kg" shall mean kilogram(s); (4) "kkg" shall mean 1000 kilograms; (5) "lb" shall mean pound(s); and (6) "TSS" shall mean total suspended non-filterable solids.

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

The following limitations constitute the quantity or quality of pollutants or

pollutant properties which may be discharged after application of best practicable control technology currently available by a point source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitation
BOD <sub>5</sub> .....	Maximum for any one day 0.90 kg/kkg of anhydrous product (0.90 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.30 kg/kkg of anhydrous product (0.30 lb/1000 lb).
COD.....	Maximum for any one day 3.60 kg/kkg of anhydrous product (3.60 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 1.35 kg/kkg of anhydrous product (1.35 lb/1000 lb).
TSS.....	Maximum for any one day 0.90 kg/kkg of anhydrous product (0.90 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.30 kg/kkg of anhydrous product (0.30 lb/1000 lb).
Surfactants....	Maximum for any one day 0.90 kg/kkg of anhydrous product (0.90 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.30 kg/kkg of anhydrous product (0.30 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.15 kg/kkg of anhydrous product (0.15 lb/1000 lb). Within the range of 6.0 to 9.0.
pH.....	Within the range of 6.0 to 9.0.

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

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

Effluent characteristic	Effluent limitation
BOD <sub>5</sub> .....	Maximum for any one day 0.45 kg/kkg of anhydrous product (0.45 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.19 kg/kkg of anhydrous product (0.19 lb/1000 lb).
COD.....	Maximum for any one day 1.10 kg/kkg of anhydrous product (1.10 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.55 kg/kkg of anhydrous product (0.55 lb/1000 lb).

Effluent characteristic	Effluent limitation
TSS.....	Maximum for any one day 0.05 kg/kkg of anhydrous product (0.05 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kkg of anhydrous product (0.02 lb/1000 lb).
Surfactants....	Maximum for any one day 0.36 kg/kkg of anhydrous product (0.36 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.18 kg/kkg of anhydrous product (0.18 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.08 kg/kkg of anhydrous product (0.08 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.04 kg/kkg of anhydrous product (0.04 lb/1000 lb).
pH.....	Within the range of 6.0 to 9.0.

##### § 417.104 Standards of performance for new sources.

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged reflecting the greatest degree of effluent reduction achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants by a new point source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitation
BOD <sub>5</sub> .....	Maximum for any one day 0.18 kg/kkg of anhydrous product (0.18 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.09 kg/kkg of anhydrous product (0.09 lb/1000 lb).
COD.....	Maximum for any one day 0.80 kg/kkg of anhydrous product (0.80 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.40 kg/kkg of anhydrous product (0.40 lb/1000 lb).
TSS.....	Maximum for any one day 0.05 kg/kkg of anhydrous product (0.05 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kkg of anhydrous product (0.02 lb/1000 lb).
Surfactants....	Maximum for any one day 0.18 kg/kkg of anhydrous product (0.18 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.09 kg/kkg of anhydrous product (0.09 lb/1000 lb).



Effluent characteristic	Effluent limitation
Oil and Grease.	Maximum for any one day 0.04 kg/kg of anhydrous product (0.04 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb).
pH	Within the range of 6.0 to 9.0.

#### § 417.105 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act, for a source within the air SO<sub>3</sub> sulfation and sulfonation subcategory which is an industrial 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 navigable waters), shall be the standard set forth in Part 128 of this chapter except that for the purposes of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in § 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works by a major contributing industry shall be the standard of performance for new sources specified in § 417.102 of this chapter; *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 be correspondingly reduced for that pollutant.

#### Subpart K—SO<sub>3</sub> Solvent and Vacuum Sulfonation Subcategory

#### § 417.110 Applicability; description of SO<sub>3</sub> solvent and vacuum sulfonation subcategory.

The provisions of this subpart are applicable to discharges resulting from operations in which undiluted SO<sub>3</sub> and an organic reactant are fed through a mixing nozzle into a vacuum reactor where the sulfonation of the organic reactant takes place.

#### § 417.111 Specialized definitions.

For the purpose of this subpart:

(a) the term "anhydrous product" shall mean the theoretical product that would result if all water were removed from the actual product.

(b) the term "oil and grease" shall mean those components of a waste water amenable to measurement by the method described in "1972 Annual Book of ASTM Standards, Part 23," 1972, Standard D1783-70, page 445.

(c) the term "surfactant" shall mean those methylene blue active substances amenable to measurement by the method described in "Methods for Chemical Analysis of Water and Wastes," 1971, Environmental Protection Agency, Analytical Quality Control Laboratory, page 131.

(d) the following abbreviations shall have the following meaning: (1) "BOD<sub>5</sub>" shall mean five day biochemical oxygen demand; (2) "COD" shall mean chemical oxygen demand; (3) "kg" shall mean

kilogram(s); (4) "kkg" shall mean 1000 kilograms; (5) "lb" shall mean pound(s); and (6) "TSS" shall mean total suspended non-filterable solids.

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

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after application of best practicable control technology currently available by a point source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitation
BOD <sub>5</sub>	Maximum for any one day 0.45 kg/kg of anhydrous product (0.45 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.30 kg/kg of anhydrous product (0.30 lb/1000 lb).
COD	Maximum for any one day 1.90 kg/kg of anhydrous product (1.90 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 1.35 kg/kg of anhydrous product (1.35 lb/1000 lb).
TSS	Maximum for any one day 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.03 kg/kg of anhydrous product (0.03 lb/1000 lb).
Surfactants	Maximum for any one day 0.45 kg/kg of anhydrous product (0.45 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.30 kg/kg of anhydrous product (0.30 lb/1000 lb).
Oil and Grease	Maximum for any one day 0.08 kg/kg of anhydrous product (0.08 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb).
pH	Within the range of 6.0 to 9.0.

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

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

Effluent characteristic	Effluent limitation
BOD <sub>5</sub>	Maximum for any one day 0.25 kg/kg of anhydrous product (0.25 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb).

Effluent characteristic	Effluent limitation
COD	Maximum for any one day 0.80 kg/kg of anhydrous product (0.80 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.45 kg/kg of anhydrous product (0.45 lb/1000 lb).
TSS	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
Surfactants	Maximum for any one day 0.20 kg/kg of anhydrous product (0.20 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb).
Oil and Grease	Maximum for any one day 0.04 kg/kg of anhydrous product (0.04 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb).
pH	Within the range of 6.0 to 9.0.

#### § 417.114 Standards of performance for new sources.

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged reflecting the greatest degree of effluent reduction achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants by a new point source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitation
BOD <sub>5</sub>	Maximum for any one day 0.20 kg/kg of anhydrous product (0.20 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb).
COD	Maximum for any one day 0.80 kg/kg of anhydrous product (0.80 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.45 kg/kg of anhydrous product (0.45 lb/1000 lb).
TSS	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
Surfactants	Maximum for any one day 0.20 kg/kg of anhydrous product (0.20 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb).



Effluent characteristic	Effluent limitation
Oil and Grease.	Maximum for any one day 0.04 kg/kg of anhydrous product (0.04 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb).
pH	Within the range of 6.0 to 9.0.

#### § 417.115 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act, for a source within the SO<sub>3</sub> solvent and vacuum sulfonation subcategory which is an industrial 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 navigable waters), shall be the standard set forth in Part 128 of this chapter except that for the purposes of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in § 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works by a major contributing industry shall be the standard of performance for new sources specified in § 417.114 of this chapter; 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 work shall be correspondingly reduced for that pollutant.

#### Subpart L—Sulfamic Acid Sulfation Subcategory

#### § 417.120 Applicability; description of sulfamic acid sulfation subcategory.

The provisions of this subpart are applicable to discharges resulting from operations in which sulfamic acid is employed as the sulfating agent.

#### § 417.121 Specialized definitions.

For the purpose of this subpart:

(a) the term "anhydrous product" shall mean the theoretical product that would result if all water were removed from the actual product.

(b) the term "oil and grease" shall mean those components of a waste water amenable to measurement by the method described in "1972 Annual Book of ASTM Standards, Part 23," 1972, Standard D1783-70, page 445.

(c) the term "surfactant" shall mean those methylene blue active substances amenable to measurement by the method described in "Methods for Chemical Analysis of Water and Wastes," 1971, Environmental Protection Agency, Analytical Quality Control Laboratory, page 131.

(d) the following abbreviations shall have the following meaning: (1) "BOD<sub>5</sub>" shall mean five day biochemical oxygen demand; (2) "COD" shall mean chemical oxygen demand; (3) "kg" shall mean kilogram(s); (4) "kkg" shall mean 1000 kilograms; (5) "lb" shall mean pound(s);

and (6) "TSS" shall mean total suspended non-filterable solids.

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

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after application of best practicable control technology currently available by a point source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitation
BOD <sub>5</sub>	Maximum for any one day 0.45 kg/kg of anhydrous product (0.45 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.30 kg/kg of anhydrous product (0.30 lb/1000 lb).
COD	Maximum for any one day 1.90 kg/kg of anhydrous product (1.90 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 1.35 kg/kg of anhydrous product (1.35 lb/1000 lb).
TSS	Maximum for any one day 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.03 kg/kg of anhydrous product (0.03 lb/1000 lb).
Surfactants	Maximum for any one day 0.45 kg/kg of anhydrous product (0.45 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.30 kg/kg of anhydrous product (0.30 lb/1000 lb).
Oil and grease.	Maximum for any one day 0.08 kg/kg of anhydrous product (0.08 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb).
pH	Within the range of 6.0 to 9.0.

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

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

Effluent characteristic	Effluent limitation
BOD <sub>5</sub>	Maximum for any one day 0.25 kg/kg of anhydrous product (0.25 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb).

Effluent characteristic	Effluent limitation
COD	Maximum for any one day 0.90 kg/kg of anhydrous product (0.90 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.45 kg/kg of anhydrous product (0.45 lb/1000 lb).
TSS	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
Surfactants	Maximum for any one day 0.20 kg/kg of anhydrous product (0.20 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb).
Oil and grease.	Maximum for any one day 0.04 kg/kg of anhydrous product (0.04 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb).
pH	Within the range of 6.0 to 9.0.

#### § 417.124 Standards of performance for new sources.

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged reflecting the greatest degree of effluent reduction achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants by a new point source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitation
BOD <sub>5</sub>	Maximum for any one day 0.20 kg/kg of anhydrous product (0.20 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb).
COD	Maximum for any one day 0.80 kg/kg of anhydrous product (0.80 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.45 kg/kg of anhydrous product (0.45 lb/1000 lb).
TSS	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
Surfactants	Maximum for any one day 0.20 kg/kg of anhydrous product (0.20 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb).



Effluent characteristic	Effluent limitation
Oil and Grease.	Maximum for any one day 0.04 kg/kg of anhydrous product (0.04 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Within the range of 6.0 to 9.0.

§ 417.125 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act, for a source within the sulfamic acid sulfation subcategory which is an industrial 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 navigable waters), shall be the standard set forth in Part 128 of this chapter except that for the purposes of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in § 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works by a major contributing industry shall be the standard of performance for new sources specified in § 417.124 of this chapter; 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 be correspondingly reduced for that pollutant.

Subpart M—Chlorosulfonic Acid Sulfation Subcategory

§ 417.130 Applicability; description of chlorosulfonic acid sulfation subcategory.

The provisions of this subpart are applicable to discharges resulting from sulfation of alcohols, alkylphenols and alcohol ethoxylates utilizing chlorosulfonic acid as sulfating agent.

§ 417.131 Specialized definitions.

For the purpose of this subpart:

(a) the term "anhydrous product" shall mean the theoretical product that would result if all water were removed from the actual product.

(b) the term "oil and grease" shall mean those components of a waste water amendable to measurement by the method described in "1972 Annual Book of ASTM Standards, Part 23," 1972, Standard D1783-70, page 445.

(c) the term "surfactant" shall mean those methylene blue active substances amenable to measurement by the method described in "Methods for Chemical Analysis of Water and Wastes," 1971, Environmental Protection Agency, Analytical Quality Control Laboratory, page 131.

(d) the following abbreviations shall have the following meaning: (1) "BOD<sub>5</sub>" shall mean five day biochemical oxygen demand; (2) "COD" shall mean chemical oxygen demand; (3) "kg" shall mean kilogram(s); (4) "kgg" shall mean 1000

kilograms; (5) "lb" shall mean pound(s); and (6) "TSS" shall mean total suspended non-filterable solids.

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

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after application of best practicable control technology currently available by a point source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitation
BOD <sub>5</sub> -----	Maximum for any one day 0.45 kg/kg of anhydrous product (0.45 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.30 kg/kg of anhydrous product (0.30 lb/1000 lb).
COD-----	Maximum for any one day 1.90 kg/kg of anhydrous product (1.90 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 1.35 kg/kg of anhydrous product (1.35 lb/1000 lb).
TSS-----	Maximum for any one day 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.03 kg/kg of anhydrous product (0.03 lb/1000 lb).
Surfactants---	Maximum for any one day 0.45 kg/kg of anhydrous product (0.45 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.30 kg/kg of anhydrous product (0.30 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.08 kg/kg of anhydrous product (0.08 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb). Within the range of 6.0 to 9.0.

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

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

Effluent characteristic	Effluent limitation
BOD <sub>5</sub> -----	Maximum for any one day 0.35 kg/kg of anhydrous product (0.35 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.15 kg/kg of anhydrous product (0.15 lb/1000 lb).

Effluent characteristic	Effluent limitation
COD-----	Maximum for any one day 1.50 kg/kg of anhydrous product (1.50 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.75 kg/kg of anhydrous product (0.75 lb/1000 lb).
TSS-----	Maximum for any one day 0.04 kg/kg of anhydrous product (0.04 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb).
Surfactants---	Maximum for any one day 0.30 kg/kg of anhydrous product (0.30 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.15 kg/kg of anhydrous product (0.15 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.06 kg/kg of anhydrous product (0.06 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.03 kg/kg of anhydrous product (0.03 lb/1000 lb). Within the range of 6.0 to 9.0.

§ 417.134 Standards of performance for new sources.

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged reflecting the greatest degree of effluent reduction achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants by a new point source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitation
BOD <sub>5</sub> -----	Maximum for any one day 0.30 kg/kg of anhydrous product (0.30 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.15 kg/kg of anhydrous product (0.15 lb/1000 lb).
COD-----	Maximum for any one day 1.25 kg/kg of anhydrous product (1.25 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.75 kg/kg of anhydrous product (0.75 lb/1000 lb).
TSS-----	Maximum for any one day 0.03 kg/kg of anhydrous product (0.03 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb).
Surfactants---	Maximum for any one day 0.25 kg/kg of anhydrous product (0.25 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.15 kg/kg of anhydrous product (0.15 lb/1000 lb).



<i>Effluent characteristic</i>	<i>Effluent limitation</i>
Oil and Grease.	Maximum for any one day 0.06 kg/kg of anhydrous product (0.06 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.03 kg/kg of anhydrous product (0.03 lb/1000 lb).
pH	Within the range of 6.0 to 9.0.

#### § 417.135 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act, for a source within the chlorosulfonic acid sulfation subcategory which is an industrial 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 navigable waters), shall be the standard set forth in Part 128 of this chapter except that for the purposes of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in § 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works by a major contributing industry shall be the standard of performance for new sources specified in § 417.134 of this chapter; 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 be correspondingly reduced for that pollutant.

#### Subpart N—Neutralization of Sulfuric Acid Esters and Sulfonic Acids Subcategory

##### § 417.140 Applicability; description of neutralization of sulfuric acid esters and sulfonic acids subcategory.

The provisions of this subpart are applicable to discharges resulting from continuous or batch neutralization of sulfated and sulfonated alkylbenzenes, alcohols and other materials to convert them to neutral salts.

##### § 417.141 Specialized definitions.

For the purpose of this subpart:

(a) the term "anhydrous product" shall mean the theoretical product that would result if all water were removed from the actual product.

(b) the term "surfactant" shall mean those methylene blue active substances amenable to measurement by the method described in "Methods for Chemical Analysis of Water and Wastes," 1971, Environmental Protection Agency, Analytical Quality Control Laboratory, page 131.

(c) the term "oil and grease" shall mean those components of a waste water amenable to measurement by the method described in "1972 Annual Book of ASTM Standards, Part 23," 1972, Standard D1783-70, page 445.

(d) the following abbreviations shall have the following meaning:

(1) "BOD5" shall mean five day biochemical oxygen demand; (2) "COD" shall mean chemical oxygen demand;

(3) "kg" shall mean kilogram(s); (4) "kkg" shall mean 1000 kilogram(s); (5) "lb" shall mean pound(s); and (6) "TSS" shall mean total suspended non-filterable solids.

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

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after application of best practicable control technology currently available by a point source subject to the provisions of this subpart:

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
BOD5	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
COD	Maximum for any one day 0.08 kg/kg of anhydrous product (0.08 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb).
TSS	Maximum for any one day 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.03 kg/kg of anhydrous product (0.03 lb/1000 lb).
Surfactants	Maximum for any one day 0.03 kg/kg of anhydrous product (0.03 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
pH	Within the range of 6.0 to 9.0.

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

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

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
BOD5	Maximum for any one day 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
COD	Maximum for any one day 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb).
TSS	Maximum for any one day 0.04 kg/kg of anhydrous product (0.04 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.03 kg/kg of anhydrous product (0.03 lb/1000 lb).
Surfactants	Maximum for any one day 0.03 kg/kg of anhydrous product (0.03 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
pH	Within the range of 6.0 to 9.0.

##### § 417.144 Standards of performance for new sources.

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged reflecting the greatest degree of effluent reduction achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants by a new point source subject to the provisions of this subpart:

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
BOD5	Maximum for any one day 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
COD	Maximum for any one day 0.04 kg/kg of anhydrous product (0.04 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.04 kg/kg of anhydrous product (0.04 lb/1000 lb).
TSS	Maximum for any one day 0.04 kg/kg of anhydrous product (0.04 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.03 kg/kg of anhydrous product (0.03 lb/1000 lb).
Surfactants	Maximum for any one day 0.03 kg/kg of anhydrous product (0.03 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb).



<i>Effluent characteristic</i>	<i>Effluent limitation</i>
Oil and Grease.	Maximum for any one day 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
pH.....	Within the range of 6.0 to 9.0

#### § 417.145 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act, for a source within the neutralization of sulfuric acid esters and sulfonic acids subcategory which is an industrial 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 navigable waters), shall be the standard set forth in Part 128 of this chapter except that for the purposes of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in § 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works by a major contributing industry shall be the standard of performance for new sources specified in § 417.144 of this chapter; *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 be correspondingly reduced for that pollutant.

#### Subpart O—Manufacture of Spray Dried Detergents Subcategory

##### § 417.150 Applicability; description of manufacture of spray dried detergents subcategory.

The provisions of this subpart are applicable to discharges resulting from all operations associated with the manufacture of spray dried detergents, including but not limited to assembly and storage of raw materials, crutching, spray drying, blending, (including tumble spraying of additives) and packaging.

##### § 417.151 Specialized definitions.

For the purpose of this subpart:

(a) the term "anhydrous product" shall mean the theoretical product that would result if all water were removed from the actual product.

(b) the term "surfactant" shall mean those methylene blue active substances amenable to measurement by the method described in "Methods for Chemical Analysis of Water and Wastes," 1971, Environmental Protection Agency, Analytical Quality Control Laboratory, page 131.

(c) the term "normal operation" of a spray drying tower shall mean operation utilizing low (or no) nonionic content formulations with few associated air quality problems from stack gases, and without more than 6 turnarounds in a 30-day period, thus permitting complete recycle of all waste water.

(d) the term "air quality restricted operation" of a spray drying tower shall

mean an operation utilizing high non-ionic content formulations with the associated need for wet scrubbing to maintain the required quality of stack gases, at a rate which produces more waste water than can be recycled to process.

(e) the term "fast turnaround operation" of a spray drying tower shall mean operation involving more than 6 changes of formulation in a 30-day period that are of such degree and type (e.g. high phosphate to no phosphate) as to require cleaning of the tower to maintain minimal product quality.

(f) the term "oil and grease" shall mean those components of a waste water amenable to measurement by the method described in "1972 Annual Book of ASTM Standards, Part 23," 1972, Standard D1783-70, page 445.

(g) the following abbreviations shall have the following meaning: (1) "BOD5" shall mean five day biochemical oxygen demand; (2) "COD" shall mean chemical oxygen demand; (3) "kg" shall mean kilogram(s); (4) "kkg" shall mean 1000 kilograms; (5) "lb" shall mean pound(s); (6) "TSS" shall mean total suspended non-filterable solids.

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

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after application of best practicable control technology currently available by a point source subject to the provisions of this subpart:

(a) For normal operation of spray drying towers as defined above, the following values pertain:

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
BOD5.....	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
COD.....	Maximum for any one day 0.08 kg/kg of anhydrous product (0.08 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb).
TSS.....	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
Surfactants....	Maximum for any one day 0.03 kg/kg of anhydrous product (0.03 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb).

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
Oil and Grease.	Maximum for any one day 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.005 kg/kg of anhydrous product (0.005 lb/1000 lb).
pH.....	Within the range of 6.0 to 9.0.

(b) For air quality restricted operations of a spray drying tower, but only when a high rate of scrubbing is in operation which produces more water than can be recycled to the process, the following values pertain:

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
BOD5.....	Maximum for any one day 0.12 kg/kg of anhydrous product (0.12 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.08 kg/kg of anhydrous product (0.08 lb/1000 lb).
COD.....	Maximum for any one day 0.50 kg/kg of anhydrous product (0.50 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.35 kg/kg of anhydrous product (0.35 lb/1000 lb).
TSS.....	Maximum for any one day 0.15 kg/kg of anhydrous product (0.15 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb).
Surfactants....	Maximum for any one day 0.25 kg/kg of anhydrous product (0.25 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.15 kg/kg of anhydrous product (0.15 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.03 kg/kg of anhydrous product (0.03 lb/1000 lb).
pH.....	Within the range of 6.0 to 9.0.

(c) For fast turnaround operation of a spray tower, the following discharges shall be allowed in addition to the appropriate values from either paragraph (a) or (b) of this section: the maximum for any one day when the number of turnarounds exceeds six in any particular thirty day period shall be the sum of the appropriate value below and from paragraph (a) or (b) of this section; and the maximum average of daily values for any period of thirty days shall be the value shown below multiplied by the number of turnarounds in excess of six within the particular thirty day period plus the appropriate value from paragraph (a) or (b) of this section.



appropriate value from paragraph (a) or (b) of this section.

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
BOD5-----	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb).
COD-----	Maximum for any one day 0.09 kg/kg of anhydrous product (0.09 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.09 kg/kg of anhydrous product (0.09 lb/1000 lb).
TSS-----	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb).
Surfactants...	Maximum for any one day 0.03 kg/kg of anhydrous product (0.03 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.03 kg/kg of anhydrous product (0.03 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.005 kg/kg of anhydrous product (0.005 lb/1000 lb).
pH-----	Within the range of 6.0 to 9.0

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
Surfactants...	Maximum for any one day 0.03 kg/kg of anhydrous product (0.03 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.03 kg/kg of anhydrous product (0.03 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.005 kg/kg of anhydrous product (0.005 lb/1000 lb).
pH-----	Within the range of 6.0 to 9.0

(b) For air quality restricted operations of a spray drying tower, but only when a high rate of scrubbing is in operation which produces more water than can be recycled to the process, the following values pertain:

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
BOD5-----	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb).
COD-----	Maximum for any one day 0.07 kg/kg of anhydrous product (0.07 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.07 kg/kg of anhydrous product (0.07 lb/1000 lb).
TSS-----	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb).
Surfactants...	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.012 lb/100 lb). 0.005 kg/kg of anhydrous product (0.005 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.005 kg/kg of anhydrous product (0.005 lb/1000 lb).
pH-----	Within the range of 6.0 to 9.0

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

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

(a) For normal operation of spray drying towers as defined above, the following values pertain:

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
BOD5-----	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
COD-----	Maximum for any one day 0.04 kg/kg of anhydrous product (0.04 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.04 kg/kg of anhydrous product (0.04 lb/1000 lb).
TSS-----	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb).

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
BOD5-----	Maximum for any one day 0.08 kg/kg of anhydrous product (0.08 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.06 kg/kg of anhydrous product (0.06 lb/1000 lb).
COD-----	Maximum for any one day 0.35 kg/kg of anhydrous product (0.35 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.25 kg/kg of anhydrous product (0.25 lb/1000 lb).
TSS-----	Maximum for any one day 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.07 kg/kg of anhydrous product (0.07 lb/1000 lb).
Surfactants...	Maximum for any one day 0.15 kg/kg of anhydrous product (0.15 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb).
pH-----	Within the range of 6.0 to 9.0

(c) For fast turnaround operation of a spray tower, the following discharges shall be allowed in addition to the appropriate values from either paragraph (a) or (b) of this section: the maximum for any one day when the number of turnarounds exceeds six in any particular thirty day period shall be the sum of the appropriate value below and from paragraph (a) or (b) of this section; and the maximum average of daily values for any period of thirty days shall be the value shown below multiplied by the number of turnarounds in excess of six within the particular thirty day period plus the ap-

**§ 417.154 Standards of performance for new sources.**

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged reflecting the greatest degree of effluent reduction achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants by a new point source subject to the provisions of this subpart:

(a) For normal operation of spray drying towers as defined above, the following values pertain:

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
BOD5-----	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
COD-----	Maximum for any one day 0.04 kg/kg of anhydrous product (0.04 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.04 kg/kg of anhydrous product (0.04 lb/1000 lb).



Effluent characteristic	Effluent limitation
TSS-----	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb).
Surfactants...	Maximum for any one day 0.03 kg/kg of anhydrous product (0.03 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.005 kg/kg of anhydrous product (0.005 lb/1000 lb).
pH-----	Within the range of 6.0 to 9.0.

(b) For air quality restricted operations of a spray drying tower, but only when a high rate of scrubbing is in operation which produces more water than can be recycled to the process, the following values pertain:

Effluent characteristic	Effluent limitation
BOD5-----	Maximum for any one day 0.08 kg/kg of anhydrous product (0.08 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.06 kg/kg of anhydrous product (0.06 lb/1000 lb).
COD-----	Maximum for any one day 0.35 kg/kg of anhydrous product (0.35 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.25 kg/kg of anhydrous product (0.25 lb/1000 lb).
TSS-----	Maximum for any one day 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.07 kg/kg of anhydrous product (0.07 lb/1000 lb).
Surfactants...	Maximum for any one day 0.15 kg/kg of anhydrous product (0.15 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb).
Oil and grease.	Maximum for any one day product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb).
pH-----	Within the range of 6.0 to 9.0.

(c) For fast turnaround operation of a spray tower the following discharges shall be allowed in addition to the appropriate values from either paragraph (a) or (b) of this section: the maximum for any one day when the number of turnarounds exceeds six in any particu-

lar thirty day period shall be the sum of the appropriate value below and from paragraph (a) or (b) of this section; and the maximum average of daily values for any period of thirty days shall be the value shown below multiplied by the number of turnarounds in excess of six within the particular thirty day period plus the appropriate value from paragraph (a) or (b) of this section.

Effluent characteristic	Effluent limitation
BOD5-----	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb).
COD-----	Maximum for any one day 0.07 kg/kg of anhydrous product (0.07 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.07 kg/kg of anhydrous product (0.07 lb/1000 lb).
TSS-----	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb).
Surfactants...	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.005 kg/kg of anhydrous product (0.005 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.005 kg/kg of anhydrous product (0.005 lb/1000 lb).
pH-----	Within the range of 6.0 to 9.0.

#### § 417.155 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act, for a source within the manufacture of spray dried detergents subcategory which is an industrial 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 navigable waters), shall be the standard set forth in Part 128 of this chapter, except that for the purposes of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in § 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works by a major contributing industry shall be the standard of performance for new sources specified in § 417.154 of this chapter: *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 be correspondingly reduced for that pollutant.

#### Subpart P—Manufacture of Liquid Detergents Subcategory

##### § 417.160 Applicability; description of manufacture of liquid detergents subcategory.

The provisions of this subpart are applicable to discharges resulting from all operations associated with the manufacture of liquid detergents, commencing with the blending of ingredients, to and including bottling or packaging finished products.

##### § 417.161 Specialized definitions.

For the purpose of this subpart:

(a) the term "anhydrous product" shall mean the theoretical product that would result if all water were removed from the actual product.

(b) the term "surfactant" shall mean those methylene blue active substances amenable to measurement by the method described in "Methods for Chemical Analysis of Water and Wastes," 1971, Environmental Protection Agency, Analytical Quality Control Laboratory, page 131.

(c) the term "oil & grease" shall mean those components of a waste water amenable to measurement by the method described in "1972 Annual Book of ASTM Standards, Part 23," 1972, Standard D1783-70, page 445.

(d) the following abbreviations shall have the following meaning: (1) "BOD5" shall mean five day biochemical oxygen demand; (2) "COD" shall mean chemical oxygen demand; (3) "kg" shall mean kilogram(s); (4) "lb" shall mean 1000 kilograms; (5) "lb" shall mean pound(s); and (6) "TSS" shall mean total suspended non-filterable solids.

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

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after application of best practicable control technology currently available by a point source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitation
BOD5-----	Maximum for any one day 0.30 kg/kg of anhydrous product (0.30 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.20 kg/kg of anhydrous product (0.20 lb/1000 lb).
COD-----	Maximum for any one day 0.90 kg/kg of anhydrous product (0.90 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.60 kg/kg of anhydrous product (0.60 lb/1000 lb).
TSS-----	Maximum for any one day 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.005 kg/kg of anhydrous product (0.005 lb/1000 lb).



<i>Effluent characteristic</i>	<i>Effluent limitation</i>
Surfactants....	Maximum for any one day 0.25 kg/kg of anhydrous product (0.25 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.13 kg/kg of anhydrous product (0.13 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.005 kg/kg of anhydrous product (0.005 lb/1000 lb).
pH.....	Within the range of 6.0 to 9.0.

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

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

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
BOD5.....	Maximum for any one day 0.12 kg/kg of anhydrous product (0.12 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb).
COD.....	Maximum for any one day 0.45 kg/kg of anhydrous product (0.45 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.22 kg/kg of anhydrous product (0.22 lb/1000 lb).
TSS.....	Maximum for any one day 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.005 kg/kg of anhydrous product (0.005 lb/1000 lb).
Surfactants....	Maximum for any one day 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.005 kg/kg of anhydrous product (0.005 lb/1000 lb).
pH.....	Within the range of 6.0 to 9.0.

§ 417.164 Standards of performance for new sources.

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged reflecting the greatest degree of

effluent reduction achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants by a new point source subject to the provisions of this subpart:

<i>Effluent characteristic</i>	<i>Effluent limitations</i>
BOD5.....	Maximum for any one day 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb).
COD.....	Maximum for any one day 0.40 kg/kg of anhydrous product (0.40 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.22 kg/kg of anhydrous product (0.22 lb/1000 lb).
TSS.....	Maximum for any one day 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.005 kg/kg of anhydrous product (0.005 lb/1000 lb).
Surfactants....	Maximum for any one day 0.09 kg/kg of anhydrous product (0.09 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.005 kg/kg of anhydrous product (0.005 lb/1000 lb).
pH.....	Within the range of 6.0 to 9.0.

§ 417.165 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act, for a source within the manufacture of liquid detergents subcategory which is an industrial 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 navigable waters), shall be the standard set forth in Part 128 of this chapter except that for the purposes of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in § 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works by a major contributing industry shall be the standard of performance for new sources specified in § 417.164 of this chapter; *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 be correspondingly reduced for that pollutant.

Subpart Q—Manufacture of Detergents by Dry Blending Subcategory

§ 417.170 Applicability; description of manufacture of detergents by dry blending subcategory.

The provisions of this subpart are applicable to discharges resulting from operations associated with the manufacture of detergents by means of the blending of dry ingredients; including, but not limited to blending and subsequent packaging.

§ 417.171 Specialized definitions.

For the purpose of this subpart:

(a) the term "anhydrous product" shall mean the theoretical product that would result if all water were removed from the actual product.

(b) the term "surfactant" shall mean those methylene blue active substances amenable to measurement by the method described in "Methods for Chemical Analysis of Water and Wastes," 1971, Environmental Protection Agency, Analytical Quality Control Laboratory, page 131.

(c) The term "oil and grease" shall mean those components of a waste water amenable to measurement by the method described in "1972 Annual Book of ASTM Standards, Part 23," 1972, Standard D1783-70, page 445.

(d) the following abbreviations shall have the following meanings: (1) "BOD5" shall mean five day biochemical oxygen demand; (2) "COD" shall mean chemical oxygen demand; (3) "kg" shall mean kilogram(s); (4) "kkg" shall mean 1000 kilograms; (5) "lb" shall mean pound(s); and (6) "TSS" shall mean total suspended non-filterable solids.

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

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after application of best practicable control technology currently available by a point source subject to the provisions of this subpart:

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
BOD5.....	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
COD.....	Maximum for any one day 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.07 kg/kg of anhydrous product (0.07 lb/1000 lb).
TSS.....	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).



<i>Effluent characteristic</i>	<i>Effluent limitation</i>
Surfactants....	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.005 kg/kg of anhydrous product (0.005 lb/1000 lb).
pH.....	Within the range of 6.0 to 9.0.

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

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

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
BOD5.....	Maximum for any one day 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
COD.....	Maximum for any one day 0.08 kg/kg of anhydrous product (0.08 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.07 kg/kg of anhydrous product (0.07 lb/1000 lb).
TSS.....	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
Surfactants....	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.005 kg/kg of anhydrous product (0.005 lb/1000 lb).
pH.....	Within the range of 6.9-9.0.

§ 417.174 Standards of performance for new sources.

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged reflecting the greatest degree of

effluent reduction achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants by a new point source subject to the provisions of this subpart:

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
BOD5.....	Maximum for any one day 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
COD.....	Maximum for any one day 0.08 kg/kg of anhydrous product (0.08 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.07 kg/kg of anhydrous product (0.07 lb/1000 lb).
TSS.....	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
Surfactants....	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.005 kg/kg of anhydrous product (0.005 lb/1000 lb).
pH.....	Within the range of 6.0 to 9.0.

§ 417.175 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act, for a source within the manufacture of detergents by dry blending subcategory which is an industrial 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 navigable waters), shall be the standard set forth in Part 128 of this chapter except that for the purposes of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in § 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works by a major contributing industry shall be the standard of performance for new sources specified in § 417.174 of this chapter; *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 be correspondingly reduced for that pollutant.

## Subpart R—Manufacture of Drum Dried Detergents Subcategory

§ 417.180 Applicability; description of manufacture of drum dried detergents subcategory.

The provisions of this subpart are applicable to discharges resulting from operations associated with the manufacture of detergents by drum drying, including, but not limited to, drying of formulations on heated drums or rollers, conversion of dried detergents to powder or flakes, and packaging of finished products.

§ 417.181 Specialized definitions.

For the purpose of this subpart:  
For the purpose of this subpart:  
(a) The term "anhydrous product" shall mean the theoretical product that would result if all water were removed from the actual product.  
(b) The term "surfactant" shall mean those methylene blue active substances amenable to measurement by the method described in "Methods for Chemical Analysis of Water and Wastes," 1971, Environmental Protection Agency, Analytical Quality Control Laboratory, page 131.

(c) The term "oil & grease" shall mean those components of a waste water amenable to measurement by the method described in "1972 Annual Book of ASTM Standards, Part 23," 1972, Standard D1783-70, page 445.

(d) The following abbreviations shall have the following meanings: (1) "BOD5" shall mean five day biochemical oxygen demand; (2) "COD" shall mean chemical oxygen demand; (3) "kg" shall mean kilogram(s); (4) "kkg" shall mean 1000 kilograms; (5) "lb" shall mean pounds(s); and (6) "TSS" shall mean total suspended non-filterable solids.

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

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after application of best practicable control technology currently available by a point source subject to the provisions of this subpart:

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
BOD5.....	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
COD.....	Maximum for any one day 0.08 kg/kg of anhydrous product (0.08 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb).



Effluent characteristic	Effluent limitation
TSS	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
Surfactants	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
Oil and Grease	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
pH	Within the range of 6.0 to 9.0.

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

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

Effluent characteristic	Effluent limitation
BOD <sub>5</sub>	Maximum for any one day 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
COD	Maximum for any one day 0.06 kg/kg of anhydrous product (0.06 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb).
TSS	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
Surfactants	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
Oil and Grease	Maximum for any one day 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
pH	Within the range of 6.0 to 9.0.

**§ 417.184 Standards of performance for new sources.**

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged reflecting the greatest degree of effluent reduction achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants by a new point source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitation
BOD <sub>5</sub>	Maximum for any one day 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
COD	Maximum for any one day 0.06 kg/kg of anhydrous product (0.06 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.05 kg/kg of anhydrous product (0.05 lb/1000 lb).
TSS	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
Surfactants	Maximum for any one day 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
Oil and Grease	Maximum for any one day 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.01 lb/1000 lb).
pH	Within the range of 6.0 to 9.0.

**§ 417.185 Pretreatment standards for new sources.**

The pretreatment standards under section 307(c) of the Act, for a source within the drum dried detergents subcategory which is an industrial 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 navigable waters), shall be the standard set forth in Part 128 of this chapter except that for the purposes of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in § 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works by a major contributing industry shall be the standard of performance for new sources specified in § 417.184, of this chapter 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 be correspondingly reduced for that pollutant.

**Subpart S—Manufacture of Detergent Bars and Cakes Subcategory**

**§ 417.190 Applicability: description of manufacture of detergent bars and cakes subcategory.**

The provisions of this subpart are applicable to discharges resulting from operations associated with the manufacture of detergent bars and cakes, including, but not limited to, drying, milling, plodding, stamping and packaging.

**§ 417.191 Specialized definitions.**

For the purpose of this subpart:

(a) the term "anhydrous product" shall mean the theoretical product that would result if all water were removed from the actual product.

(b) the term "surfactant" shall mean those methylene blue active substances amenable to measurement by the method described in "Methods for Chemical Analysis of Water and Wastes," 1971, Environmental Protection Agency, Analytical Quality Control Laboratory, page 131.

(c) The term "oil & grease" shall mean those components of a waste water amenable to measurement by the method described in "1972 Annual Book of ASTM Standards, Part 23," 1972, Standard D1783-70, page 445.

(d) the following abbreviations shall have the following meanings: (1) "BOD<sub>5</sub>" shall mean five day biochemical oxygen demand; (2) "COD" shall mean chemical oxygen demand; (3) "kg" shall mean kilogram(s); (4) "kkg" shall mean 1000 kilogram(s); (5) "lb" shall mean pound(s); and (6) "TSS" shall mean total suspended non-filterable solids.

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

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after application of best practicable control technology currently available by a point source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitation
BOD <sub>5</sub>	Maximum for any one day 1.10 kg/kg of anhydrous product (1.10 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.70 kg/kg of anhydrous product (0.70 lb/1000 lb).
COD	Maximum for any one day 4.50 kg/kg of anhydrous product (4.50 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 3.3 kg/kg of anhydrous product (3.3 lb/1000 lb).



<i>Effluent characteristic</i>	<i>Effluent limitation</i>
TSS.....	Maximum for any one day 0.30 kg/kg of anhydrous product (0.30 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.20 kg/kg of anhydrous product (0.20 lb/1000 lb).
Surfactants....	Maximum for any one day 0.75 kg/kg of anhydrous product (0.75 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.50 kg/kg of anhydrous product (0.50 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.04 kg/kg of anhydrous product (0.04 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb).
pH.....	within the range of 6.0 to 9.0.

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

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

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
BOD <sub>5</sub> .....	Maximum for any one day 0.40 kg/kg of anhydrous product (0.40 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.30 kg/kg of anhydrous product (0.30 lb/1000 lb).
COD.....	Maximum for any one day 1.55 kg/kg of anhydrous product (1.55 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 1.35 kg/kg of anhydrous product (1.35 lb/1000 lb).

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
TSS.....	Maximum for any one day 0.15 kg/kg of anhydrous product (0.15 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.01 kg/kg of anhydrous product (0.10 lb/1000 lb).
Surfactants....	Maximum for any one day 0.30 kg/kg of anhydrous product (0.30 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.20 kg/kg of anhydrous product (0.20 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.03 kg/kg of anhydrous product (0.03 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb).
pH.....	Within the range of 6.0 to 9.0.

§ 417.194 Standards of performance for new sources.

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged reflecting the greatest degree of effluent reduction achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants by a new point source subject to the provisions of this subpart:

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
BOD <sub>5</sub> .....	Maximum for any one day 0.40 kg/kg of anhydrous product (0.40 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.30 kg/kg of anhydrous product (0.30 lb/1000 lb).
COD.....	Maximum for any one day 1.40 kg/kg of anhydrous product (1.40 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 1.35 kg/kg of anhydrous product (1.35 lb/1000 lb).

<i>Effluent characteristic</i>	<i>Effluent limitation</i>
TSS.....	Maximum for any one day 0.15 kg/kg of anhydrous product (0.15 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.10 kg/kg of anhydrous product (0.10 lb/1000 lb).
Surfactants....	Maximum for any one day 0.30 kg/kg of anhydrous product (0.30 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.20 kg/kg of anhydrous product (0.20 lb/1000 lb).
Oil and Grease.	Maximum for any one day 0.03 kg/kg of anhydrous product (0.03 lb/1000 lb). Maximum average of daily values for any period of thirty consecutive days 0.02 kg/kg of anhydrous product (0.02 lb/1000 lb).
pH.....	Within the range of 6.0 to 9.0.

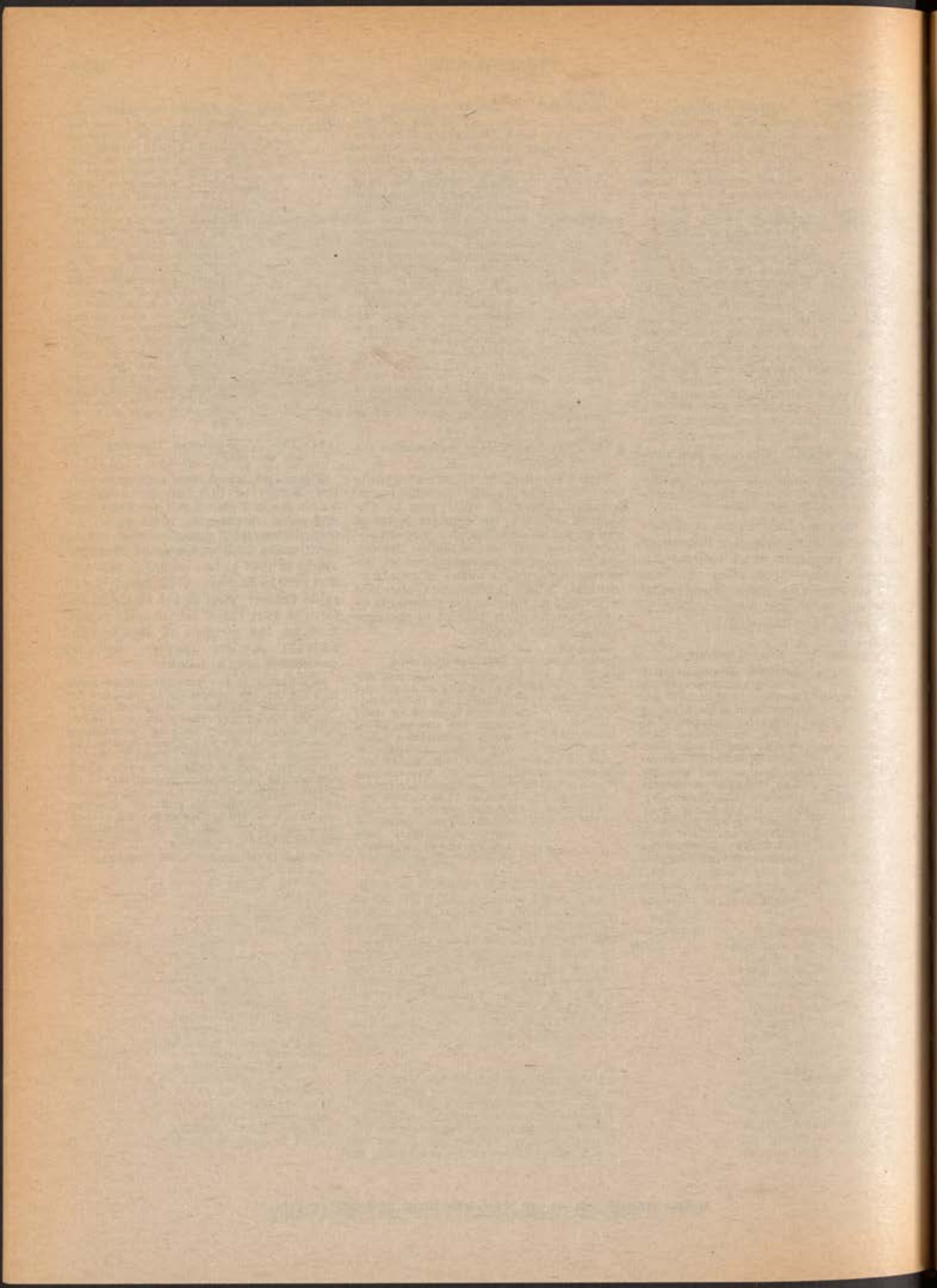
§ 417.195 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act, for a source within the manufacture of detergent bars and cakes subcategory which is an industrial 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 navigable waters), shall be the standard set forth in Part 128 of this chapter except that for the purposes of this section, § 128.133 of this chapter shall be amended to read as follows:

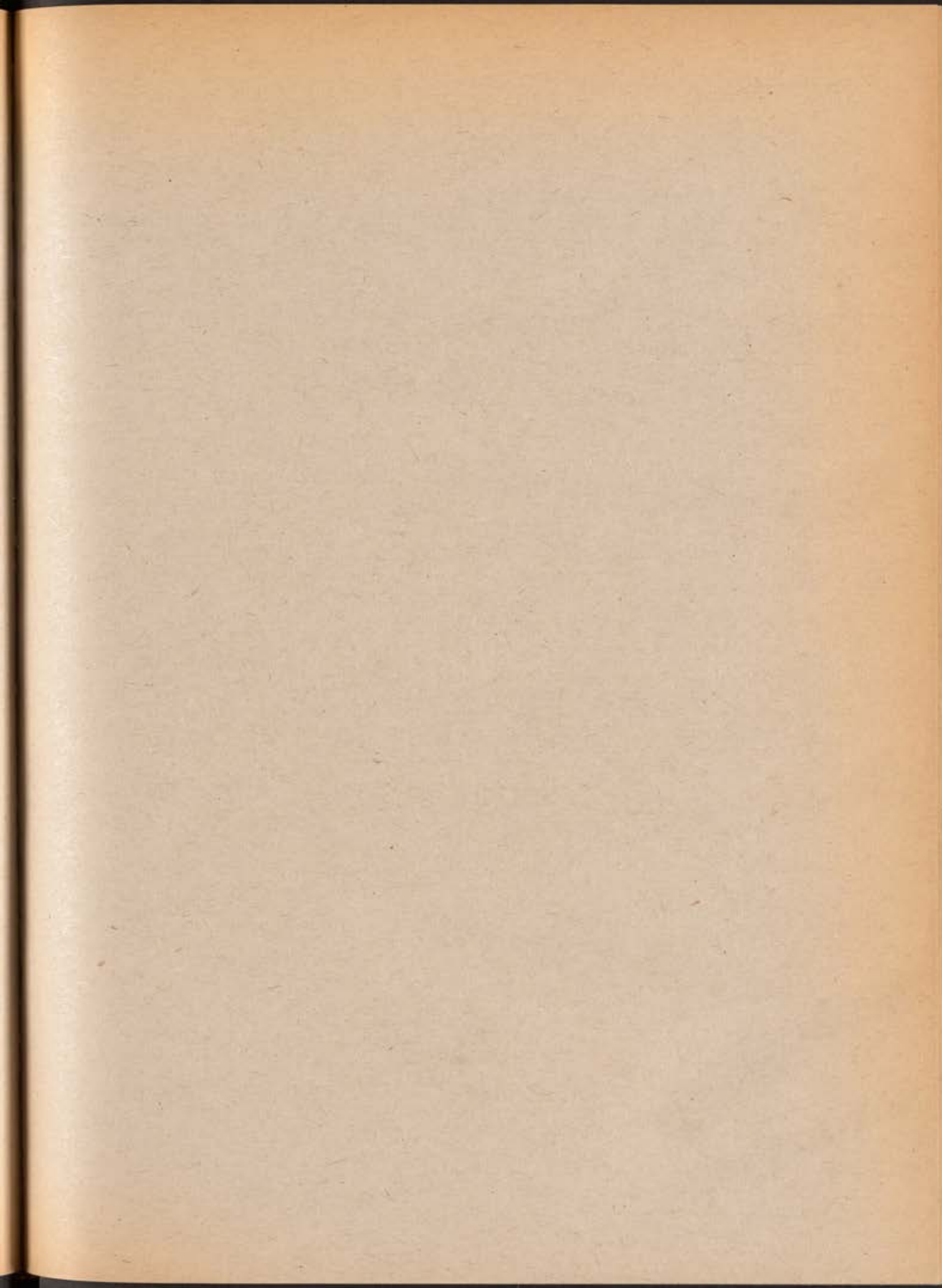
In addition to the prohibitions set forth in § 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works by a major contributing industry shall be the standard of performance for new sources specified in § 417.194, of this chapter: *Provided*, That 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 be correspondingly reduced for that pollutant.

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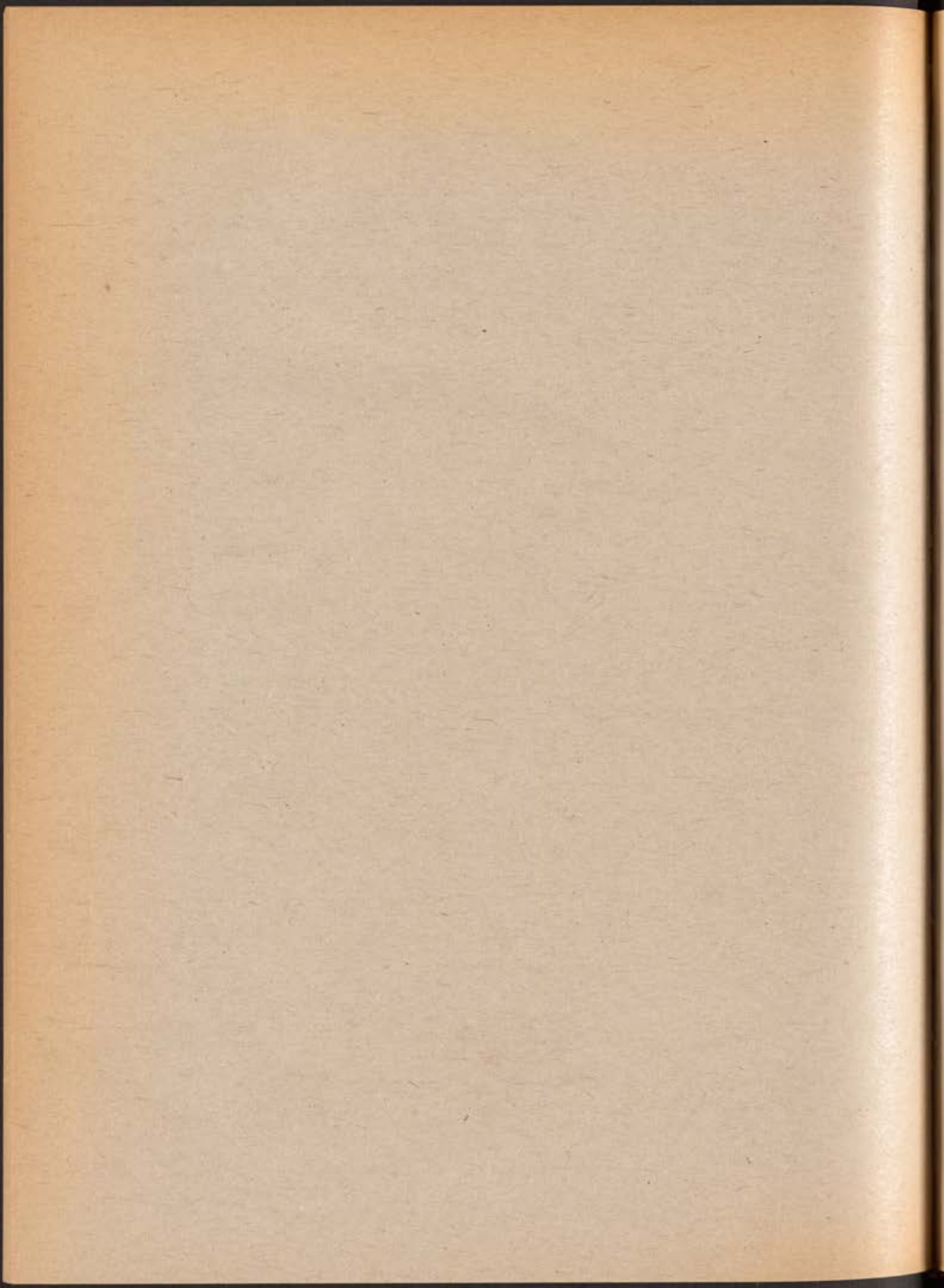














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