

## Title 40—Protection of the Environment

CHAPTER I—ENVIRONMENTAL  
PROTECTION AGENCYSUBCHAPTER N—EFFLUENT GUIDELINES  
AND STANDARDS

[522-4]

PART 407—CANNED AND PRESERVED  
FRUITS AND VEGETABLES POINT  
SOURCE CATEGORY

On October 21, 1975, notice was published in the *Federal Register* (40 FR 49222), that the Environmental Protection Agency (EPA or Agency) set forth interim final effluent limitations guidelines for existing sources, proposed pretreatment standards for existing sources amending 40 CFR 407, and proposed standards of performance and pretreatment standards for new sources within the canned and preserved fruits, canned and preserved vegetables, and canned and miscellaneous specialties subcategories of the canned and preserved fruits and vegetables category of point sources.

The purpose of this notice is to establish final effluent limitations and guidelines for existing sources and standards of performance and pretreatment standards for new sources in the canned and preserved fruits and vegetables category of point sources by amending 40 CFR Chapter I, Subchapter N, Part 407 by adding thereto the canned and preserved fruits subcategory (Subpart F), the canned and preserved vegetables subcategory (Subpart G), and the canned and miscellaneous specialties subcategory (Subpart H). This final rulemaking is promulgated pursuant to sections 301, 304 (b) and (c), 306 (b) and (c), and 307(c) of the Federal Water Pollution Control Act, as amended, (the Act); 33 U.S.C. 1251, 1311, 1314 (b) and (c), 1316 (b) and (c) and 1317(c); 86 Stat. 816 et seq.; Pub. L. 92-500. A regulation regarding cooling water intake structures for all categories of point sources under section 316(b) of the Act will be promulgated in 40 CFR 402.

The legal basis, methodology, and factual conclusions which support promulgation of this regulation were set forth in substantial detail in the notice of public review procedures published August 6, 1973 (38 FR 21202) and in the notice of interim final and proposed rulemaking for the fruits, vegetables, and specialties segment of the canned and preserved fruits and vegetables point source category. In addition, the regulation as set forth was supported by two other documents: (1) the document entitled "Development Document for Interim Final and Proposed Effluent Limitations Guidelines and New Source Performance Standards for the Fruits, Vegetables and Specialties Segment of the Canned and Preserved Fruits and Vegetables Point Source Category" (October 1975) and (2) the document entitled "Economic Analysis of Interim Final Effluent Guidelines, Fruits and Vegetables Processing Industry (October 1975)". Both of these documents were made available to the public and circulated to interested persons at approximately the time of pub-

lication of the notice of interim final and proposed rulemaking.

Interested persons were invited to participate in the rulemaking by submitting written comments within 60 days from the date of publication. Prior public participation in the form of solicited comments and responses from the States, Federal agencies, and other interested parties were described in the preamble to the interim final regulation. The EPA has considered carefully all of the comments received and a discussion of these comments with the Agency's response there-to follows.

## (a) Summary of comments.

The following responded to the request for written comments contained in the preamble to the interim final and proposed regulations: National Canners Association; American Frozen Food Institute; National Kraut Packers Association; National Preservers Association; Association for Dressings and Sauces; Green Giant Co.; Agripac, Inc.; Perry E. Miller Engineers; The Larsen Co.; Ocean Spray Cranberries, Inc.; Hunt-Wesson Foods, Inc.; Stokely-Van Camp, Inc.; Grocery Store Products Co.; Vlasic Foods, Inc.; Food and Drug Administration; and U.S. Dept. of Interior.

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

(1) A number of comments reflected concern that the data base used to establish subcategory raw waste loads contained unrepresentative data which resulted in inaccurate determinations of average subcategory raw waste loads.

The Agency has conducted a comprehensive review of all industry raw waste load data. All unrepresentative, unreliable and inaccurate data have been deleted. Where possible, new data have replaced outdated information. The data review program began during the initial gathering of information when the technical contractor was directed to obtain raw waste data through on-site visits to about 300 processing plants. Actual on-site plant sampling was conducted in a few cases to verify existing data or to generate additional data. In order to confirm the accuracy of the data, each firm was sent all of the data and information that had been collected for its plants, and a review was requested to ensure that corrections were made where necessary. Upon release of the contractor's draft report, the Agency again sent the data back to the plants where it had been collected and plant representatives were again asked to review the data for accuracy. After publication of the interim final and proposed rulemaking, the Agency and industry representatives again cooperated in scrutinizing the data. In summary, every effort has been made to coordinate with and afford the industry ample opportunity to review their raw waste data. It is therefore the Agency's opinion that the resulting raw waste load data base is the most accurate and reliable which could reasonably be obtained.

(2) The criticism was again made that the use of the log normal distribution to compute subcategory raw waste loads was unfair because the log normal distribution underestimates average raw waste values.

The rationale for selecting the log normal distribution to characterize raw waste loads from the fruits and vegetables industry was described in the interim final and proposed regulation. The EPA prepared a data distribution of the major wastewater parameters. A standard normal distribution model was studied and found to be inadequate for most cases because the range of data was large and the data tended to be skewed with a few relatively large values. Also, the normal distribution allowed for negative values which do not occur for the pollutant parameters being examined. The log normal distribution is the distribution commonly used for only positive values which are skewed right to allow for a few large values. The set of the logarithms of values in the distribution conforms to the normal distribution, and standard readily available statistical techniques can be employed to analyze them. The log normal distribution was investigated and found to describe the raw waste data collected from this industry segment better than the normal distribution. This conclusion was verified by a separate industry sponsored study. The EPA study determined that more than 75 percent of the flow ratios and 85 percent of the BOD5 ratios were described better by the log normal distribution than by the normal distribution. Since the log normal distribution model described the data distribution better than the normal distribution, the log normal distribution was used to establish the raw waste loads within each subcategory.

(3) The comment was made that the use of an average raw waste load is inequitable because effluent limitations calculated from a mean value result in half of the plants having to do more to meet the limitations. It was further suggested that the use of the mean raw waste load would require some processors to install in-plant controls or technology in addition to BPTCA to meet the 1977 limitations.

It is inherent in developing subcategory raw waste loads that some plants will currently fall above the average waste loads. However, by employing "good housekeeping" practices and developing an effective waste management program to optimize plant operation, these facilities can reduce their raw waste loads before 1977. In developing effluent limitations, the Agency must be responsive to the requirements of the Act. The legal standards for 1977, like those for 1983 and for new sources, are delineated in Sections 301, 304 and 306 of the Act as "best practicable control technology currently available" (1977), "best available technology economically achievable" (1983), and "best available demonstrated technology" (new sources).

As stated in the Senate Report (Leg. Hist., Vol. 2, p. 1468): "The Administrator should establish the range of best practicable levels based upon the average of the best existing performance by plants of various sizes, ages, and unit processes within each industrial category." The Agency is mandated to rely upon the most effective pollution control achieved in a particular industry subcategory in setting effluent limitations, and must require all point sources in the subcategory, by 1977, to meet this level of currently achieved control. In enacting the Federal Water Pollution Control Act Amendment of 1972, Congress meant to do more than leave industry at status quo.

The utilization of the mean value for subcategory raw waste loads represents a waste load that is typical of processing plants with a concern for water and waste conservation practices. Most plants below the mean waste load have achieved this load through becoming aware of and implementing common, normally practiced in-plant water and waste management techniques, such as turning off hoses and faucets when not in use. These good housekeeping practices are commonly employed at most of these plants and have become an integral part of effective plant management. Plants with waste loads above the mean value are capable of readily achieving the mean waste load with effective plant management and the associated concern for water usage and waste management. No installation of specialized internal or external technology in addition to good in-plant practices is necessary. The variation experienced in the collected water and waste loading data for similar process configurations among different plants indicates that waste loads can be significantly reduced without adversely affecting the quality of the product. Throughout the various subcategories, about 130 plants or about 50 percent of all surveyed plants report they presently achieve the established mean raw waste loads. Thus, the mean value is the most representative value and the most equitable value for the typical waste load generated from the processing of the fruit and vegetable commodities found in these subcategories.

(4) The comment was made that a few unrepresentative raw waste data points served as a basis for developing 1983 BATEA raw waste loads. It was further stated that the methodology used to select the BATEA raw waste loads contributed to the establishment of 1983 raw waste loads which would not be achievable for all processors.

As discussed above, the Agency has conducted a thorough program to ensure all raw waste data is accurate, reliable and representative. Furthermore, the Agency has reviewed the methodology used to establish the 1983 BATEA raw waste loads. The methodology used to determine the 1983 water reductions was found to be consistent with other procedures. For a few commodities, however, the Agency found that industry

plants which were used to establish the 1983 water usage were unable to achieve the 1983 raw waste BOD5. Accordingly, the 1983 raw waste BOD5 ratios have been revised to ensure that the 1983 water usage and BOD5 ratios are achieved in the same plant. Thus, the 1983 raw waste loads have been revised to ensure the achievability of BATEA raw waste loads.

The Agency also reviewed the available information on salt recycling systems for pickle salting stations. It was determined that sufficient information was not presently available to substantiate either the economic or technical achievability of no discharge limitations. Accordingly, limitations have been revised to reflect aerated lagoon treatment technology.

(5) Several commenters suggested that there is no relationship between water use and waste load by referring to several plants with similar BOD5 ratios and considerably different flow ratios.

The study revealed two major facets of water use within the fruits and vegetables industry. First, unnecessary flows through hoses and machinery or stations not in use increase water consumption without a noticeable effect on waste load ratios based on production volume. However, the concentration of the total plant effluent decreases due to the dilution effect of unnecessary water consumption. Second, any water-solids contact, such as rinses or spray washes, removes undesirable material from the surface of the product. Public health or product quality criteria determines some optimum water consumption level for the wash. Beyond this point unnecessary water-solids contact can affect the product surface which may increase suspended solids and induce additional leaching of soluble material. In this case, the additional water-solids contact may increase the waste load per unit of production while the total plant effluent concentration may actually decrease depending on the amount of excess water.

Some plants sweep or wash solids and peeled material into drains while others utilize dry-capture techniques before cleaning equipment. This has a definite effect on waste load which is not directly related to water use. To be more precise, there is, in fact, a definite relationship between water-solids contact and waste load as illustrated by data presented in the Development Document.

(6) A number of commenters questioned cost data. The assumption of negligible cost to implement the inplant changes needed to achieve 1983 BATEA raw waste loads was questioned. It was suggested that the length of the processing season was overestimated for some commodities and thus the annual pollution control costs underestimated. Also, the cost of biological treatment, especially aeration equipment, was questioned.

The Agency has again reviewed its cost assumptions and methodology as a result of these comments. Costs to implement in-plant changes needed to achieve

the 1983 BATEA raw waste loads were developed with the assistance of the EPA technical contractor and industry. It was determined these costs are not negligible as originally assumed. Accordingly, inplant costs have been incorporated as additional incremental costs to those already developed for end-of-pipe treatment systems for model plants utilized to develop the potential economic impact of the regulations. Details of these costs and the assumptions made in their development are included in the Development Document.

The Agency also reviewed its assumptions regarding the length of the processing season. The Development Document supporting the interim final and proposed regulation contained maximum lengths of processing seasons for each commodity based upon available literature for growing seasons of each fruit and vegetable in each state. Since the operation and maintenance costs of BPECTA and BATEA technologies are based on maximum season lengths, the annual costs listed in the Development Document are actually overestimated. However, these values have not been used to determine the economic impact of the regulations on the industry. The processing seasons used for the economic impact analysis were developed from industry information available to the economic and technical contractors. This information was supplemented by consultation with members of industry and EPA before the characteristics of each economic impact model plant were established. Thus, the lengths of the processing season have not been overestimated and the costs have not been underestimated.

With regard to the criticism of the cost of biological treatment, the design basis for sizing treatment systems and the cost of component equipment has been further evaluated to determine whether they are reasonable. From this analysis, it seems apparent that the design criteria for the systems as well as the unit process equipment and aggregate costs are reasonable and compare well with costs made available to the Agency by a number of processors. These costs and their bases are fully described in the Development Document. The design criteria, such as the oxygen transfer rate, used to develop costs are similar to the design parameters used throughout the industry. Therefore, the Agency considers its cost data for biological treatment representative and reasonable.

(7) A few commenters questioned the internal separations for some commodities, such as for frozen versus canned fruits and vegetables, because the resulting raw waste loads and effluent limitations were not always realistic.

As indicated earlier, a significant effort was undertaken to verify that existing data was correct and that the plants for which data was available were representative of typical industry processing methods. This effort resulted in several changes, including incorporation of new 1975 data and deletion of what appeared to be unrepresentative data.

Analysis of the revised data base resulted in a number of changes as follows: tomato products and peeled tomatoes have been combined, canned and frozen peaches have been combined; canned and frozen peas were combined; canned and frozen snap beans were combined; canned and frozen spinach were combined; and sweet and white potatoes were combined. Internal separations have not been changed for cherries, grapes, pickles, corn, sauerkraut or chips. Thus, revisions made in the raw waste loads discussed above have also affected the separation of commodities within the major subcategories.

(8) A number of commenters suggested that the Agency has not adequately recognized the variability of the raw material which is beyond the control of the processor.

As discussed in the Development Document, the contributing causes of raw waste variability include some factors such as the characteristics of the raw material. The separations by commodity and style reflect a consideration of some of these variability factors. The use of a full year's data from a number of plants or several years' data to establish subcategory raw waste loads reflects further consideration. The design of waste management programs with sufficient flexibility to handle raw material quality variations also helps to control these factors. Most variability is normal and should be expected. The Agency considers abnormal situations caused by unpredictable events such as serious frosts or drought, severe insect damage or dramatic increases in crop yield as too rare and localized in occurrence for establishing separate national limitations. Furthermore, it is probable that this variability has already been recognized by the Agency through the inclusion of raw waste and treated effluent data which was collected during such unpredictable events. Thus, the characteristic variability of the fruits and vegetables industry has directly influenced the effluent limitations through its effect on the industry subcategorization and its appearance in industry raw waste and treated effluent data. It is suggested, however, that the individual discharger establish a contingency plan with the permitting authority which allows the plant management to give notice, as far in advance as the circumstances permit, which identifies those abnormal conditions that could potentially result in poor treatment plant performance.

(9) The comment was made that biological treatment for commodities with wastewaters that contain high total dissolved solids (chlorides), such as wastes from pickle and sauerkraut processing, is not as effective as biological treatment of wastewaters with low levels of chlorides. In addition, temperature effects are also more pronounced when wastes contain high chloride levels.

The Agency recognizes that biological treatment of high chloride content wastewaters can present problems if care is not exercised in system design and operation. However, it has been

demonstrated that these wastewaters can be successfully treated to low pollutant levels with adequate detention time, aeration, nutrient balance, and pH control. The control of these factors is necessary in order to establish and maintain an active, acclimated biomass in treatment systems. The design criteria for treating high chloride wastewater are somewhat different from those utilized for other fruit and vegetable wastewaters. It is also necessary to consider the influence on system performance of cold weather operation. The costs, economic impact, and effluent guidelines for the affected commodities have been modified to account for these factors.

(10) A number of commenters indicated that certain of the treatment systems used to develop the guidelines should not have been included; some of them were built to meet water quality constraints, and other treatment systems were not appropriate because they contained additional treatment unit operations.

The Agency has reviewed all available information on each treatment system used in the development of the limitations. As a result of this analysis, several plants have been omitted. More specifically, four aerated lagoon systems have been excluded; three lagoon systems that included saturated spray fields for which no data were available, and one that was treating significant quantities of non-process wastewater. Further, joint municipal-industrial activated sludge treatment systems have been eliminated since the variability of the treated effluent from such systems may not be as great as the variability of a seasonal system.

Certain treatment system components and design factors included in some of these treatment plants, and perhaps considered by some commenters as additional unit operations, were in fact considered in the development of the cost of meeting the limitations as well as the limitations themselves. For example, when costing activated sludge treatment of wastewaters with high oil and grease content or high suspended solids content, dissolved air flotation or a primary clarifier was included; wastewater with very high organic content required the inclusion of a "roughing" trickling filter; and all activated sludge systems included an emergency retention pond to allow flexibility in handling treatment system upsets. Moreover, similar design modifications for aerated lagoon systems were made for additional aeration and detention time to allow for more concentrated wastewaters and cold operating temperatures experienced in northern climates. Aerated lagoon systems were also costed to include a second lagoon in series with the first mechanically aerated lagoon to allow settling of solids and additional retention time. Further, the activated sludge treatment systems built to meet water quality constraints no longer serve as a part of the basis for the annual average limitations. In short, a representative variety of the circumstances

considered typical of those encountered in the industry have been incorporated into the design, cost, and economic impact of BPCTCA and BATEA.

(11) Some commenters questioned the methodology used to establish the limitations. Aerated lagoons are the best practicable control technology currently available; yet both aerated lagoon and activated sludge treatment performance data was used to establish the limitations.

The Agency has based the effluent limitations on aerated lagoons. Activated sludge and land disposal are alternative technologies. Therefore, it is necessary for aerated lagoons, activated sludge and land disposal treatment systems to attain the final effluent levels.

The annual average BOD5 and TSS limitations are currently based solely on aerated lagoons. The maximum thirty day and maximum day TSS limitations are based on aerated lagoons. The maximum thirty day BOD5 limitations were originally based on aerated lagoons. However, several activated sludge treatment systems experienced greater variability and were not able to achieve the maximum thirty day or maximum day BOD5 limitations based on aerated lagoons. Accordingly, the maximum thirty day and maximum day limitations for BOD5 are based on activated sludge treatment. It should be noted that land disposal technology can achieve all the limitations. It is therefore possible for aerated lagoons, activated sludge, and land disposal technologies to achieve each of the effluent limitations.

(12) Many commenters did not agree with the need for an annual average limitation; most commenters thought that maximum thirty day and maximum day limitations were sufficient.

The annual average is a very important limitation for the fruits and vegetables industry. It is considered reasonable and equitable in that single-commodity and multi-commodity processing plants must achieve similar effluent reductions, as well as plants which continuously treat and discharge wastewater, and plants which store wastewater for subsequent discharge. It is also important that the methodology used to develop the annual average is fully understood. The treated effluent data used to develop the maximum thirty day and maximum day limitations is the same data used to develop the annual average limitations. Moreover, the distribution of the data was such that if a plant was within the maximum day and maximum thirty day limitations, then it also was within the annual average limitations.

The application of the annual average in NPDES permits also must be understood. Processors will have three limitations for BOD5 and TSS. The maximum thirty day and maximum day limitations are based upon peak production, and establish a maximum allowable discharge of BOD5 and TSS for this peak production period. The annual average limitations are based upon the total yearly production and thus establish the allow-

able discharge of BOD<sub>5</sub> and TSS for the entire season, regardless of the length of the processing season or the discharge period, and without regard for the mix of commodities being processed at any time during the season. The annual average, therefore, obviates the need for the allowable discharge level to change as production levels or production schedules change. The annual average limitation also simplifies the task of compliance monitoring for industry and enforcement authorities. Several examples of the application of the annual average limitation to NPDES permits are detailed at the end of Section IX of the Development Document.

(13) The comment was made that the use of the annual average would preclude the use of many existing stabilization lagoon systems that discharge on a controlled release basis, a system employed by many small processors.

Among those treatment systems considered by the Agency in developing a basis for the effluent limitations were stabilization lagoons which utilized very long term detention. The range of effluent quality which these systems can achieve is the same as for aerated lagoons and activated sludge. The only difference between them is in the degree of operator control needed over these systems and in the rate at which the effluent concentrations are achieved. The basic capabilities of the three biological treatment alternatives are similar. In some cases, upgrading of stabilization lagoons may be necessary to bring an existing system into compliance, and therefore a completely new system would not be necessary. The maximum thirty day and maximum day limitations do not apply to plants which store wastewater for discharge on a controlled release basis. However, where the controlled release period is sufficiently long and where water quality constraints apply, maximum thirty day and maximum day limitations could still be established. Thus, the annual average will not preclude the use of stabilization lagoon systems.

(14) The variability allowed by the effluent limitations for the maximum thirty day and maximum day was criticized as being inadequate. The lack of allowance for a treatment plant startup period was also criticized.

The discussion above regarding the annual average indicates that the maximum day and maximum thirty day limitations were developed from actual operating data from treatment systems in the fruits and vegetables industry. The variability of these treatment systems is representative and it is the Agency's conclusion that the variability set forth in the regulation is reasonable.

It is suggested that the permitting authority allow a period of four days to account for any discharge which may be necessary to establish effective treatment system operation after the initiation of production.

(15) The recommendation was made that fecal coliform limitations for the 1983 BATEA regulation be deleted except

where they were required to achieve water quality standards.

The Agency has reviewed the issue and agrees that available information does not indicate significant levels of fecal coliforms in wastewaters from most fruit and vegetable processing plants. It should be noted that water quality constraints should dictate the use of disinfection when high fecal coliform levels are observed, and when sanitary wastes are mixed with process wastewaters from fruit and vegetable plants. Accordingly, fecal coliform limitations have been deleted from the regulation.

(16) The comment was made that the Agency is obligated to develop an alternative technology to BPCTCA for small plants which have not been included in the regulation. State and local pollution control agencies may require biological treatment which the Agency has indicated might cause an economic impact. The selection of plant size definitions to determine those plants financially incapable of achieving the limitations was also criticized, and the use of cash flow as the determining factor was suggested as an alternative.

The interim final and proposed rule-making notice indicated that based upon the cost of BPCTCA for "model" hypothetical plants of 2,000 tons per year production or less there was a significant possibility that some would close. It must be pointed out that this study was based upon best estimates using available financial profile information. Actual closures may not occur. Nevertheless plants less than 2,000 tons per year production were excluded from consideration in the regulation. The Agency recognizes, however, that it could not prescribe an alternative technology for all small processors because it could not meaningfully evaluate all of the local conditions associated with each small plant. However, the extensive body of data and information presented in the Development Document, on typical raw waste loads from a broad variety of commodities and waste treatment alternatives, should provide a reasonable basis to assist the States and local authorities in evaluating specific plant circumstances. Thus, information available in the Development Document along with individual plant characteristics should be sufficient to prepare NPDES permits on a case by case basis for plants excluded from this regulation.

The Agency has studied all of the available data in considerable depth to ascertain the financial capabilities of this industry. This financial profile data and information, combined with the costs of BPCTCA and BATEA, were evaluated utilizing a number of factors, including cash flow, which determine the viability of a given size plant in both the short and long terms. The results of this analysis indicated that a rational approach to minimize the impact of the regulation was further separation of the three major subcategories by plant size. To use another basis for making this determination at the permit writing level, such as by cash flow information from

individual processors, would not be practicable. The Agency has utilized the 2,000 tons per year "cut-off" to minimize economic impacts on small plants as forecast in the economic analysis of the regulation. This is the only methodology available which directly deals with the potential economic impact.

(17) Concern was expressed that the effluent guidelines and the associated raw waste loads would be used by municipalities as a basis of establishing user surcharges and capital cost recovery for processors which discharge to a publicly owned treatment works.

The Agency has determined that in the case of the canned and preserved fruits and vegetables industry, all wastewaters which are generated by typical processing methods are amenable to biological treatment commonly utilized by municipalities and do not pass through or otherwise impair these systems. Therefore, no pretreatment has been required, excepting any requirements on individual plants a given municipality may impose due to special local considerations. In the regulation, the Agency does not recommend the use of effluent limitations or average raw waste loads as a basis for user charges or capital cost recovery. The cost to a given processor will vary depending upon its size in relation to other industrial users, the overall size of the municipal system, the stringency of any water quality constraints, and whether the publicly owned treatment works has been partially financed by a Title II construction grant. Therefore, evaluation of the additional cost of treatment for municipal dischargers to achieve the BPCTCA limitations would be both extremely difficult and of questionable value in assessing the impact of the regulations for direct dischargers.

(18) The increasing awareness and control being exercised over land disposal of liquid effluents was cited as a reason for limiting or reversing the trend of change within the industry from direct discharge to spray irrigation.

It is true that the Agency, and many states and local governments, have brought spray irrigation and other land disposal methods under closer scrutiny in the interest of protecting groundwater quality. Nonetheless, it is also recognized that spray irrigation is an efficient and often a relatively low cost alternative to complete treatment, such as activated sludge. Spray irrigation with no discharge can be achieved if proper attention is afforded to the details of soil and cover crop selection, pumping and distribution system design, site engineering, climate conditions and system operation. Some regions of the country may constrain the use of spray irrigation due to special problems, and therefore limit installation of new systems. However, it is not anticipated at this time that a significant decrease in the use of spray irrigation will occur.

(b) Revision of the interim final and proposed regulations prior to promulgation.

As a result of public comments and continuing review and evaluation of the

proposed regulation by the EPA, the following changes have been made in the regulation:

(1) Industry raw waste data have been modified to insure that subcategory raw waste loads are accurate and representative. The methodology for developing 1983 BATEA raw waste loads was modified when the Agency found that for some commodities a few industry plants used to establish the 1983 water usage were unable to achieve the 1983 raw waste BOD<sub>5</sub>. The revised raw waste data and the revised methodology for developing 1983 BATEA raw waste loads have resulted in somewhat less stringent limitations, but these changes have ensured the achievability of both the 1977 BPCTCA and 1983 BATEA raw waste loads for all industry plants.

(2) The industry subcategorization has been revised due to changes in the raw waste data for some commodities. Canned and frozen peaches, peas, snap beans and spinach have been combined into single commodities; and tomato products and peeled tomatoes, and sweet and white potatoes have been similarly combined. Separations within commodities have not changed for cherries, grapes, pickles, sauerkraut, chips and corn. In addition to the above changes, adequate raw waste data could not be obtained for asparagus, brussels sprouts, cauliflower, and pimentos. Accordingly, limitations are not included for these commodities.

(3) Some of the data and information regarding the treatment systems used in the development of the limitations have changed. Four aerated lagoon systems have been excluded; three lagoon systems that included saturated spray fields for which no data were available and one lagoon system that was handling significant quantities of non-process wastewater. The resultant BPCTCA and BATEA limitations and new source standards are somewhat less stringent than those originally proposed. The no discharge BATEA limitation and new source standards for pickle salting stations has been changed because the Agency does not have sufficient information on salt recycling operations to substantiate either the economic or technical achievability of no discharge. Finally, the methodology of utilizing both aerated lagoon and activated sludge data to develop the limitations has been changed to reflect only aerated lagoon performance data. However, several activated sludge treatment systems experienced greater variability and were not able to achieve the maximum thirty day or maximum day BOD<sub>5</sub> limitations based on aerated lagoons. Accordingly, the maximum thirty day and maximum day limitations for BOD<sub>5</sub> are based on activated sludge treatment.

(4) Costs to achieve the BATEA limitations have been substantially increased. Costs to achieve in-plant changes for BATEA were originally thought to be negligible. However, new costs for needed in-plant changes have been developed and incorporated as ad-

ditional incremental costs to those developed for end-of-pipe treatment systems.

(5) The economic impact analysis has developed information which suggests potential economic impacts for single-commodity canned corn plants of all sizes, and for multi-commodity frozen vegetable plants smaller than 8,000 tons per year. Accordingly, no limitations apply to these industry subcategories. All industry plants with less than 2,000 tons per year production remain excluded from the regulation. While these plant groups are not covered by these effluent limitations due to potential economic impacts, permitting authorities have sufficient information in the Development Document to regulate the discharges from these excluded plants on a case-by-case basis.

(6) The BATEA limitations and new source standards for fecal coliforms have been omitted. Information available to the Agency does not substantiate the presence of significant levels of fecal coliforms in most fruit and vegetable process wastewaters.

(7) The issue of land availability to install aerated lagoons for medium size plants has not been found to be significant. Therefore, the final BPCTCA effluent limitations for large plants will also apply to medium size plants.

(c) Economic and inflationary impact. The Agency considered the economic impact of the internal and external costs of the effluent limitations. Internal costs are defined as investment and annual cost (operating costs plus the cost of capital and depreciation) for a typical plant. External cost deals basically with the assessment of the economic impact of the internal costs in terms of price increases, production curtailments or plant closures, resultant unemployment, community and regional impacts, international trade, and future industry growth.

In its reassessment of the economic impact, the Agency made a concerted and serious effort to contact new sources and obtain new data. Inquiries were made to government agencies, private companies, and trade associations. The Agency reevaluated previous data and evaluated new data furnished to the Agency. The following paragraphs highlight the specific results of the economic impact analysis.

Plants processing less than 2,000 tons of raw product per year are not covered in the final guidelines. These plants were excluded because aerated lagoon wastewater treatment systems were potentially not economically feasible. In addition, all single commodity canned corn plants and multi-product frozen vegetable plants processing less than 8,000 tons per year were excluded from the guidelines on the basis of potential economic impacts. Nevertheless, the Agency has controlled more than ninety-five percent of the direct dischargers, the industry production and its pollution load.

For the purposes of the economic impact analysis, aerated lagoon waste treatment technology was considered to be the single "best practicable control technology currently available." Activated sludge waste treatment was considered as an alternative technology but was found to potentially result in excessive economic impacts.

The BPCTCA effluent limitations for plants processing 2,000 to 10,000 tons per year may result in the closure of two plants. These plants are in the pickles only manufacturing category. However, there is a great deal of uncertainty associated with this particular prediction. The incremental cost necessary to meet BATEA for plants in the 2,000-10,000 tons per year range are unlikely to result in additional closures. BATEA effluent limitations for plants processing more than 10,000 tons per year are more stringent and more costly to achieve than the effluent limitations for smaller plants. It is expected, however, that plants in this larger size range will be able to bear the burden of the additional costs and no closures are predicted.

Although a relatively few plant closures are predicted to result from the regulation, the profitability of some plants may decrease significantly. Since direct dischargers affected by the proposed regulation represent a small fraction of the total industry production, plants covered by the regulation may not be able to pass on pollution control costs to the consumer in the form of higher prices.

In the event of a plant closure, community and regional impacts from plant closures could be serious. Many fruit and vegetable processing plants are located in small towns and rural areas. Single plants generally employ 80 to 150 persons and serve as a market for local farmers. Closure of one plant in a small town could result in severe local economic dislocations. Although exports of fruit and vegetable products will not be affected by this regulation, the existing trend of increasing imports of products such as mushrooms, strawberries, blueberries and tomato paste could be accentuated.

Executive Order 11821 (November 27, 1974) requires that major proposals for legislation and promulgation of regulations and rules by Agencies of the executive branch, be accompanied by a statement certifying that the inflationary impact of the proposal has been evaluated.

OMB Circular A-107 (January 28, 1975) prescribes guidelines for the identification and evaluation of major proposals requiring preparation of inflationary impact certifications. The circular provides that during the interim period prior to final approval by OMB of criteria developed by each Agency, the Administrator is responsible for identifying those regulations which require evaluation and certification. The Administrator has directed that all regulatory actions which are likely to result in an-



nualized costs exceeding \$100 million will require certification. Since the estimated total capital investment and annualized cost are below the designated limits, certification of the inflationary impact statement is not necessary. Nevertheless, the analysis conducted by the Agency to determine the economic impacts as summarized above fulfills the requirements of an inflationary impact statement.

(d) Cost-benefit analysis.

The detrimental effects of the constituents of waste waters now discharged by point sources within the fruits, vegetables and specialties segment of the canned and preserved fruits and vegetables point source category are discussed in Section VI of the report entitled "Development Document for Effluent Limitations Guidelines and New Source Performance Standards for the Fruits, Vegetables and Specialties Segment of the Canned and Preserved Fruits and Vegetables Point Source Category" (April 1976). It is not feasible to quantify in economic terms, particularly on a national basis, the costs resulting from the discharge of these pollutants to our Nation's waterways. Nevertheless, as indicated in Section VI, the pollutants discharged have substantial and damaging impacts on the quality of water and therefore on its capacity to support healthy populations of wildlife, fish and other aquatic wildlife and on its suitability for industrial, recreational and drinking water supply uses.

The total cost of implementing the effluent limitations includes the direct capital and operating costs of the pollution control technology employed to achieve compliance and the indirect economic and environmental costs identified in Section VIII and in the supplementary report entitled "Economic Analysis of Effluent Guidelines—Fruits and Vegetables Processing Industry" (April 1976). Implementing the limitations will substantially reduce the environmental harm which would otherwise be attributable to the continued discharge of polluted waste waters from existing and newly constructed plants in the canned and preserved fruits and vegetables processing industry. Thus the Agency believes that the benefits of reducing the pollutants discharged justify the associated costs.

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

In conformance, with the requirements of Section 304(c) of the Act, a manual entitled, "Development Document for Effluent Limitations Guidelines and New Source Performance Standards for the Fruits, Vegetables and Specialties Segment of the Canned and Preserved Fruits and Vegetables Point Source Category," will be published as soon as practicable and will be available for purchase from the Government Printing Office, Washington, D.C. 20402 for a nominal fee.

Copies of the economic analysis document previously cited will be available from the National Technical Information Service, Springfield, VA 22151.

A copy of all public comments is available for inspection and copying at the EPA Public Information Reference Unit, Room 2404, Waterside Mall, 401 M St., S.W., Washington, D.C. 20460. A copy of the preliminary draft contractors reports, the Development Document (cite the appropriate reports) and economic study referred above, and certain supplementary materials supporting the study of the industry concerned, is also at this location for public review and copying.

(f) Final rulemaking.

In consideration of the foregoing, 40 CFR Chapter I, Subchapter N, Part 407, Canned and Preserved Fruits and Vegetables Point Source Category, is hereby amended by adding additional subparts F, G, and H to read as set forth below.

This regulation is being promulgated pursuant to an order of the Federal District Court for the District of Columbia entered in *Natural Resources Defense Council, Inc. v. Train* (Cv. No. 1609-73). That order requires that effluent limitations requiring the application of the best practicable control technology currently available for this industry be effective upon publication. Accordingly, good cause is found for the final regulation promulgated below establishing best practicable control technology currently available for each subpart to be effective April 16, 1976.

The final regulation promulgated below which establishes effluent limitations based on the best available technology economically achievable; new source standards based on the best available demonstrated control technology; and new source and existing source pretreatment standards shall become effective May 17, 1976.

Dated: March 31, 1976.

RUSSELL E. TRAIN,  
Administrator.

**PART 407—CANNED AND PRESERVED FRUITS AND VEGETABLES PROCESSING INDUSTRY POINT SOURCE CATEGORY**

**Subpart F—Canned and Preserved Fruits Subcategory**

- |        |   |
|--------|---|
| Sec.   |   |
| 407.60 | Applicability; description of the canned and preserved fruits subcategory.  |
| 407.61 | Specialized definitions.  |
| 407.62 | Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available. |
| 407.63 | Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.       |
| 407.64 | Pretreatment standards for existing sources.  |
| 407.65 | Standards of performance for new sources.   |

Sec.  
407.66 Pretreatment standards for new sources.

**Subpart G—Canned and Preserved Vegetables Subcategory**

- |        |   |
|--------|---|
| Sec.   |   |
| 407.70 | Applicability; description of the canned and preserved vegetables subcategory.  |
| 407.71 | Specialized definitions.  |
| 407.72 | Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available. |
| 407.73 | Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.       |
| 407.74 | Pretreatment standards for existing sources.  |
| 407.75 | Standards of performance for new sources.   |
| 407.76 | Pretreatment standards for new sources.   |

**Subpart H—Canned and Miscellaneous Specialties Subcategory**

- |        |   |
|--------|---|
| 407.80 | Applicability; description of the canned and miscellaneous specialties subcategory.   |
| 407.81 | Specialized definitions.  |
| 407.82 | Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available. |
| 407.83 | Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.       |
| 407.84 | Pretreatment standards for existing sources.  |
| 407.85 | Standards of performance for new sources.   |
| 407.86 | Pretreatment standards for new sources.   |

**Subpart F—Canned and Preserved Fruits Subcategory**

§ 407.60 Applicability; description of the canned and preserved fruits subcategory.

The provisions of this subpart are applicable to discharges resulting from the processing of the following fruit products: apricots; canberries; sweet, sour and brined cherries; cranberries; dried fruit; grape juice canning and pressing; olives; peaches; pears; fresh and processed pickles, and pickle salting stations; pineapples; plums; raisins; strawberries; and tomatoes. When a plant is subject to effluent limitations covering more than one commodity or subcategory, the plant discharge limitation shall be set by proration of limitations for each subcategory or commodity based on the total production covered by each commodity or subcategory.

§ 407.61 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR 401 shall apply to this subpart.

(b) the term "apricots" shall include the processing of apricots into the following product styles: canned and froz-

en, pitted and unpitted, peeled and unpeeled, whole, halves, slices, nectar, and concentrate.

(c) the term "canberries" shall include the processing of the following berries: canned and frozen blackberries, blueberries, boysenberries, currants, gooseberries, loganberries, ollalberries, raspberries, and any other similar cane or bushberry but not strawberries or cranberries.

(d) the term "cherries, sweet" shall include the processing of all sweet varieties of cherries into the following products styles: frozen and canned, pitted and unpitted, whole, halves, juice and concentrate.

(e) the term "cherries, sour" shall include the processing of all sour varieties of cherries into the following products styles: frozen and canned, pitted and unpitted, whole, halves, juice and concentrate.

(f) the term "cherries, brined" shall include the processing of all varieties of cherries into the following brined product styles: canned, bottled and bulk, sweet and sour, pitted and unpitted, bleached, sweetened, colored and flavored, whole, halves and chopped.

(g) the term "cranberries" shall mean the processing of cranberries into the following product styles: canned, bottled, and frozen, whole, sauce, jelly, juice and concentrate.

(h) the term "dried fruit" shall mean the processing of various fruits into the following products styles: air, vacuum, and freeze dried, pitted and unpitted, blanched and unblanched, whole, halves, slices and other similar styles of apples, apricots, figs, peaches, pears, prunes, canned extracted prune juice and pulp from rehydrated and cooked dehydrated prunes; but not including dates or raisins.

(i) the term "grape juice canning" shall mean the processing of grape juice into the following products and product styles: canned and frozen, fresh and stored, natural grape juice for the manufacture of juices, drinks, concentrates, jams, jellies, and other related finished products but not wine or other spirits. In terms of raw material processed 1000 kg (1000 lb) of grapes are equivalent to 834 liters (100 gallons) of grape juice.

(j) the term "grape pressing" shall mean the washing and subsequent handling including pressing, heating, and filtration of natural juice from all varieties of grapes for the purpose of manufacturing juice, drink, concentrate, and jelly but not wine or other spirits. In terms of raw material processed 1000 kg (1000 lb) of grapes are equivalent to 834 liters (100 gallons) of grape juice.

(k) the term "olives" shall mean the processing of olives into the following product styles: canned, all varieties, fresh and stored, green ripe, black ripe, spanish, sicilian, and any other styles to which spices, acids, and flavorings may have been added.

(l) the term "peaches" shall mean the processing of peaches into the following product styles: canned or frozen, all varieties, peeled, pitted and unpitted, whole,

halves, sliced, diced, and any other cuts, nectar, and concentrate but not dehydrated.

(m) the term "pears" shall mean the processing of pears into the following product styles: canned, peeled, halved, sliced, diced, and any other cuts, nectar and concentrate but not dehydrated.

(n) the term "pickles, fresh" shall mean the processing of fresh cucumbers and other vegetables, all varieties, all sizes from whole to relish, all styles, cured after packing.

(o) the term "pickles processed" shall mean the processing of pickles, cucumbers and other vegetables, all varieties, sizes and types, made after fermentation and storage.

(p) the term "pickles, salt stations" shall mean the handling and subsequent preserving of cucumbers and other vegetables at salting stations or tankyards, by salt and other chemical additions necessary to achieve proper fermentation for the packing of processed pickle products, and subsequent tank soaking.

(q) the term "pineapples" shall mean the processing of pineapple into the following product styles: canned, peeled, sliced, chunk, tidbit, diced, crushed, and any other related piece size, juice and concentrate. It also specifically includes the on-site production of by-products such as alcohol, sugar or animal feed.

(r) the term "plums" shall mean the processing of plums into the following product styles: canned and frozen, pitted and unpitted, peeled and unpeeled, blanched and unblanched, whole, halved, and other piece size.

(s) the term "raisins" shall mean the production of raisins from the following products: dried grapes, all varieties, bleached and unbleached, which have been cleaned and washed prior to packing.

(t) the term "strawberries" shall mean the processing of strawberries into the following product styles: canned and frozen, whole, sliced, and pureed.

(u) the term "tomatoes" shall mean the processing of tomatoes into canned, peeled, whole, stewed, and related piece sizes; and processing of tomatoes into the following products and product styles: canned, peeled and unpeeled paste, concentrate, puree, sauce, juice, catsup and other similar formulated items requiring various other pre-processed food ingredients.

(v) the term "medium" shall mean a point source that processes a total annual raw material production of fruits, vegetables, specialties and other products that is between 1,816 kkg (2,000 tons) per year and 9,080 kkg (10,000 tons) per year.

(w) the term "large" shall mean a point source that processes a total annual raw material production of fruits, vegetables, specialties and other products that exceeds 9,080 kkg (10,000 tons) per year.

(x) the term "annual average" shall mean the maximum allowable discharge of BOD<sub>5</sub> or TSS as calculated by multiplying the total mass (kkg or 1000 lb) of each raw commodity processed for the entire processing season or calendar year

by the applicable annual average limitation.

(y) the terms "maximum for any one day" and "average of daily values for thirty consecutive days" shall be based on the daily average mass of material processed during the peak thirty consecutive day production period.

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

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

(a) The following limitations establish the quantity of BOD<sub>5</sub> controlled by this section, which may be discharged by a "medium" or "large" existing point source subject to the provisions of this subpart after application of the best practicable control technology currently available. Any fruit processing plant which continuously or intermittently discharges process waste water during the processing season shall meet the annual average, maximum thirty day average, and maximum day BOD<sub>5</sub> limitations. Fruit processing plants employing long term waste stabilization, where all or a portion of the process waste water discharge is stored for the entire processing season and released at a controlled

rate with state approval, shall meet only the annual average BOD5 limitations.

[Metric units, kg/kg of raw material;  
English units, lb/1,000 lb of raw material]

BOD5 effluent limitations			
Commodity (fruits)	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—	Annual average shall not exceed—
Apricots.....	3.00	1.51	1.29
Caneberries.....	0.77	0.46	0.32
Cherries:			
Brined.....	2.87	1.78	1.23
Sour.....	1.77	1.11	0.81
Sweet.....	1.12	0.63	0.49
Cranberries.....	1.71	1.03	0.73
Dried fruit.....	1.86	1.13	0.89
Grape juice:			
Canning.....	1.10	0.69	0.51
Pressing.....	0.22	0.14	0.10
Olives.....	5.44	3.34	2.53
Peaches.....	1.51	0.93	0.67
Pears.....	1.77	1.12	0.83
Pickles:			
Fresh pack.....	1.22	0.75	0.53
Process pack.....	1.45	0.92	0.63
Salt stations.....	0.18	0.12	0.09
Pineapples.....	2.13	1.33	0.98
Plums.....	0.69	0.42	0.29
Raisins.....	0.43	0.28	0.21
Strawberries.....	1.79	1.06	0.74
Tomatoes.....	1.21	0.71	0.49

(b) The following limitations establish the quantity of TSS controlled by this section, which may be discharged by a "medium" or "large" existing point source subject to the provisions of this subpart after application of the best practicable control technology currently available. Any fruit processing plant which continuously or intermittently discharges process waste water during the processing season shall meet the annual average, maximum thirty day average, and maximum day TSS limitations. Fruit processing plants employing long term waste stabilization, where all or a portion of the process waste water discharge is stored for the entire processing season and released at a controlled rate with state approval, shall meet only the annual average TSS limitations.

[Metric units, kg/kg of raw material;  
English units, lb/1,000 lb of raw material]

TSS effluent limitations			
Commodity (fruits)	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—	Annual average shall not exceed—
Apricots.....	5.36	3.74	2.33
Caneberries.....	1.38	0.95	0.68
Cherries:			
Brined.....	5.18	3.68	2.38
Sour.....	3.20	2.30	1.52
Sweet.....	2.01	1.43	0.92
Cranberries.....	3.06	2.14	1.34
Dried fruit.....	3.34	2.34	1.48
Grape juice:			
Canning.....	1.99	1.44	0.96
Pressing.....	0.40	0.29	0.18
Olives.....	9.79	6.92	4.44
Peaches.....	2.72	1.93	1.26
Pears.....	3.21	2.32	1.55
Pickles:			
Fresh pack.....	2.19	1.54	0.99
Process pack.....	2.63	1.91	1.28
Salt stations.....	0.33	0.25	0.18
Pineapples.....	3.85	2.76	1.81
Plums.....	1.24	0.87	0.54
Raisins.....	0.78	0.57	0.39
Strawberries.....	3.19	2.20	1.35
Tomatoes.....	2.15	1.48	0.90

(c) The following limitations establish the quality of pH controlled by this section, which may be discharged by a "medium" or "large" existing point source subject to the provisions of this subpart after application of the best practicable control technology currently available.

*Effluent characteristic*  
pH.....  
*Effluent limitations*  
At all times within the range 6.0 to 9.5.

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

(a) The following limitations establish the quantity of BOD5 controlled by this section, which may be discharged by an existing point source subject to the provisions of this subpart after application of the best available technology economically achievable. Any fruit processing plant which continuously or intermittently discharges process waste water during the processing season shall meet the annual average, maximum thirty day average, and maximum day BOD5 limitations. Fruit processing plants employing long term waste stabilization, where all or a portion of the process waste water discharge is stored for the entire processing season and released at a controlled rate with state approval, shall meet only the annual average BOD5 limitations.

[Metric units, kg/kg of raw material;  
English units, lb/1,000 lb of raw material]

BOD5 effluent limitations			
Commodity (fruits)	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—	Annual average shall not exceed—
Apricots:			
Medium.....	1.261	0.638	0.455
Large.....	1.261	0.638	0.455
Caneberries:			
Medium.....	0.182	0.134	0.067
Large.....	0.182	0.134	0.067
Cherries:			
Brined:			
Medium.....	0.763	0.621	0.423
Large.....	0.763	0.621	0.423
Sour:			
Medium.....	1.102	0.839	0.472
Large.....	1.102	0.839	0.472
Sweet:			
Medium.....	0.448	0.337	0.181
Large.....	0.448	0.337	0.181
Cranberries:			
Medium.....	0.630	0.465	0.248
Large.....	0.630	0.465	0.248
Dried fruit:			
Medium.....	0.733	0.556	0.398
Large.....	0.733	0.556	0.398
Grape juice:			
Canning:			
Medium.....	0.760	0.553	0.359
Large.....	0.760	0.553	0.359
Pressing:			
Medium.....	0.111	0.083	0.047
Large.....	0.111	0.083	0.047
Olives:			
Medium.....	2.285	1.606	0.750
Large.....	2.285	1.606	0.750
Peaches:			
Medium.....	0.760	0.553	0.321
Large.....	0.760	0.553	0.321
Pears:			
Medium.....	0.835	0.604	0.337
Large.....	0.835	0.604	0.337
Pickles:			
Fresh pack:			
Medium.....	0.639	0.461	0.213
Large.....	0.639	0.461	0.213

BOD5 effluent limitations			
Commodity (fruits)	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—	Annual average shall not exceed—
Process pack:			
Medium.....	0.632	0.511	0.313
Large.....	0.632	0.511	0.313
Salt stations:			
Medium.....	0.634	0.672	0.634
Large.....	0.634	0.672	0.634
Pineapples:			
Medium.....	1.476	1.111	0.559
Large.....	1.476	1.111	0.559
Plums:			
Medium.....	0.283	0.524	0.065
Large.....	0.283	0.524	0.065
Raisins:			
Medium.....	0.204	0.163	0.165
Large.....	0.204	0.163	0.165
Strawberries:			
Medium.....	0.610	0.449	0.210
Large.....	0.610	0.449	0.210
Tomatoes:			
Medium.....	0.524	0.378	0.173
Large.....	0.524	0.378	0.173

(b) The following limitations establish the quantity of TSS controlled by this section, which may be discharged by an existing point source subject to the provisions of this subpart after application of the best available technology economically achievable. Any fruit processing plant which continuously or intermittently discharges process waste water during the processing season shall meet the annual average, maximum thirty day average, and maximum day TSS limitations. Fruit processing plants employing long term waste stabilization, where all or a portion of the process waste water discharge is stored for the entire processing season and released at a controlled rate with state approval, shall meet only the annual average TSS limitations.

[Metric units, kg/kg of raw material;  
English units, lb/1,000 lb of raw material]

TSS effluent limitations			
Commodity (fruits)	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—	Annual average shall not exceed—
Apricots:			
Medium.....	2.278	1.309	0.686
Large.....	1.261	0.938	0.455
Caneberries:			
Medium.....	0.323	0.184	0.137
Large.....	0.182	0.134	0.067
Cherries:			
Brined:			
Medium.....	1.438	1.013	0.572
Large.....	0.763	0.621	0.423
Sour:			
Medium.....	2.013	1.225	0.662
Large.....	1.102	0.839	0.472
Sweet:			
Medium.....	0.813	0.479	0.253
Large.....	0.448	0.337	0.181
Cranberries:			
Medium.....	1.124	0.660	0.365
Large.....	0.620	0.465	0.248
Dried fruit:			
Medium.....	1.337	0.865	0.627
Large.....	0.733	0.556	0.398
Grape juice:			
Canning:			
Medium.....	1.339	0.849	0.666
Large.....	0.760	0.553	0.326
Pressing:			
Medium.....	0.203	0.123	0.067
Large.....	0.111	0.083	0.047
Olives:			
Medium.....	3.628	2.191	1.613
Large.....	2.235	1.606	0.796
Peaches:			
Medium.....	1.397	0.844	0.660



## RULES AND REGULATIONS

[Metric units, kg/kg of raw material;  
English units, lb/1,000 lb of raw material]

## TSS effluent limitations

Commodity (fruits)	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—	Annual average shall not exceed—
Large.....	0.766	0.583	0.324
Pears:			
Medium.....	1.575	1.003	0.812
Large.....	0.855	0.664	0.397
Pickles:			
Fresh pack:			
Medium.....	1.139	0.606	0.429
Large.....	0.639	0.461	0.213
Process pack:			
Medium.....	1.208	0.784	0.643
Large.....	0.652	0.511	0.313
Salt station:			
Medium.....	0.163	0.125	0.113
Large.....	0.084	0.072	0.054
Pineapples:			
Medium.....	2.681	1.585	1.220
Large.....	1.476	1.111	0.599
Plums:			
Medium.....	0.504	0.270	0.191
Large.....	0.283	0.204	0.095
Raisins:			
Medium.....	0.380	0.257	0.217
Large.....	0.204	0.163	0.105
Strawberries:			
Medium.....	1.105	0.594	0.423
Large.....	0.619	0.440	0.210
Tomatoes:			
Medium.....	0.633	0.495	0.349
Large.....	0.524	0.378	0.173

(c) The following limitations establish the quality of pH controlled by this section, which may be discharged by a "medium" or "large" existing point source subject to the provisions of this subpart after application of the best available technology economically achievable.

Effluent characteristic	Effluent limitations
pH.....	At all times within the range 6.0 to 9.5.

#### § 407.64 Pretreatment standards for existing sources.

The pretreatment standards under section 307(c) of the Act for an existing source within the canned and preserved fruits subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR 128, except that, for the purpose of this section, 40 CFR 128.121, 128.122, 128.132, and 128.133 shall not apply. The following pretreatment standard establishes the quantity and quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by any existing point source subject to the provisions of this subpart.

Pollutant or pollutant property	Pretreatment standard
BOD5.....	No limitation.
TSS.....	Do.

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

(a) The following standards of performance establish the quantity of BOD5 controlled by this section, which may be discharged by a new point source subject to the provisions of this subpart. Any

fruit processing plant which continuously or intermittently discharges process waste water during the processing season shall meet the annual average, maximum thirty day average, and maximum day BOD5 limitations. Fruit processing plants employing long term waste stabilization, where all or a portion of the process waste water discharge is stored for the entire processing season and released at a controlled rate with state approval, shall meet only the annual average BOD5 limitations.

[Metric units, kg/kg of raw material;  
English units, lb/1,000 lb of raw material]

## BOD5 effluent limitations

Commodity (fruits)	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—	Annual average shall not exceed—
Apricots:			
Medium.....	1.261	0.933	0.485
Large.....	1.261	0.933	0.485
Cranberries:			
Medium.....	0.182	0.134	0.067
Large.....	0.182	0.134	0.067
Cherries:			
Brined:			
Medium.....	0.763	0.621	0.423
Large.....	0.763	0.621	0.423
Sour:			
Medium.....	1.102	0.839	0.472
Large.....	1.102	0.839	0.472
Sweet:			
Medium.....	0.448	0.337	0.181
Large.....	0.448	0.337	0.181
Cranberries:			
Medium.....	0.620	0.465	0.243
Large.....	0.620	0.465	0.243
Dried fruit:			
Medium.....	0.733	0.556	0.303
Large.....	0.733	0.556	0.303
Grape juice:			
Canning:			
Medium.....	0.766	0.533	0.326
Large.....	0.766	0.533	0.326
Pressing:			
Medium.....	0.111	0.085	0.047
Large.....	0.111	0.085	0.047
Olives:			
Medium.....	2.285	1.606	0.796
Large.....	2.285	1.606	0.796
Peaches:			
Medium.....	0.766	0.533	0.324
Large.....	0.766	0.533	0.324
Pears:			
Medium.....	0.855	0.664	0.397
Large.....	0.855	0.664	0.397
Pickles:			
Fresh pack:			
Medium.....	0.639	0.461	0.213
Large.....	0.639	0.461	0.213
Process pack:			
Medium.....	0.652	0.511	0.313
Large.....	0.652	0.511	0.313
Salt station:			
Medium.....	0.084	0.072	0.054
Large.....	0.084	0.072	0.054
Pineapples:			
Medium.....	1.476	1.111	0.599
Large.....	1.476	1.111	0.599
Plums:			
Medium.....	0.283	0.204	0.095
Large.....	0.283	0.204	0.095
Raisins:			
Medium.....	0.204	0.163	0.105
Large.....	0.204	0.163	0.105
Strawberries:			
Medium.....	0.619	0.440	0.210
Large.....	0.619	0.440	0.210
Tomatoes:			
Medium.....	0.524	0.378	0.173
Large.....	0.524	0.378	0.173

(b) The following standards of performance establish the quantity of TSS controlled by this section, which may be discharged by a new point source subject to the provisions of this subpart. Any fruit processing plant which continuously or intermittently discharges process waste water during the processing season shall meet the annual average,

maximum thirty day average, and maximum day TSS limitations. Fruit processing plants employing long term waste stabilization, where all or a portion of the process waste water discharge is stored for the entire processing season and discharged at a controlled rate with state approval, shall meet only the annual average TSS limitations.

[Metric units, kg/kg of raw material;  
English units, lb/1,000 lb of raw material]

## TSS effluent limitations

Commodity (fruits)	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—	Annual average shall not exceed—
Apricots:			
Medium.....	2.278	1.309	0.930
Large.....	1.261	0.933	0.485
Canberries:			
Medium.....	0.328	0.184	0.137
Large.....	0.182	0.134	0.067
Cherries:			
Brined:			
Medium.....	1.433	1.013	0.872
Large.....	0.763	0.621	0.423
Sour:			
Medium.....	2.013	1.225	0.903
Large.....	1.102	0.839	0.472
Sweet:			
Medium.....	0.813	0.470	0.263
Large.....	0.419	0.337	0.181
Cranberries:			
Medium.....	1.124	0.660	0.605
Large.....	0.620	0.465	0.218
Dried fruit:			
Medium.....	1.337	0.805	0.627
Large.....	0.733	0.556	0.303
Grape juice:			
Canning:			
Medium.....	1.399	0.849	0.660
Large.....	0.766	0.533	0.326
Pressing:			
Medium.....	0.203	0.123	0.097
Large.....	0.111	0.085	0.047
Olives:			
Medium.....	3.920	2.191	1.613
Large.....	2.285	1.600	0.790
Peaches:			
Medium.....	1.397	0.844	0.660
Large.....	0.766	0.533	0.324
Pears:			
Medium.....	1.575	1.003	0.812
Large.....	0.855	0.664	0.397
Pickles:			
Fresh pack:			
Medium.....	1.139	0.606	0.429
Large.....	0.639	0.461	0.213
Process pack:			
Medium.....	1.208	0.784	0.643
Large.....	0.652	0.511	0.313
Salt station:			
Medium.....	0.163	0.125	0.113
Large.....	0.084	0.072	0.054
Pineapples:			
Medium.....	2.681	1.585	1.220
Large.....	1.476	1.111	0.599
Plums:			
Medium.....	0.504	0.270	0.191
Large.....	0.283	0.204	0.095
Raisins:			
Medium.....	0.380	0.257	0.217
Large.....	0.204	0.163	0.105
Strawberries:			
Medium.....	1.105	0.594	0.423
Large.....	0.610	0.440	0.210
Tomatoes:			
Medium.....	0.633	0.495	0.349
Large.....	0.524	0.378	0.173

(c) The following standards of performance establish the quality of pH controlled by this section, which may be discharged by a "medium" or "large" new point source subject to the provisions of this subpart.

Effluent characteristic	Effluent limitations
pH.....	At all times within the range 6.0 to 9.5.

§ 407.66 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a new source within the canned and preserved fruits subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR 128, except that, for the purpose of this section, 40 CFR 128.121, 128.122, 128.132, and 128.133 shall not apply. The following pretreatment standard establishes the quantity and quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new point source subject to the provisions of this subpart.

Pollutant or pollutant property	Pretreatment standard
BOD5-----	No limitation.
TSS-----	Do.

Subpart G—Canned and Preserved Vegetables Subcategory

§ 407.70 Applicability; description of the canned and preserved vegetables subcategory.

The provisions of this subpart are applicable to discharges resulting from the processing of the following vegetable products: beets; broccoli; carrots; canned and frozen corn; dehydrated onions and garlic; dehydrated vegetables; dry beans; lima beans; mushrooms; canned onions; peas; sauerkraut canning and cutting; snap beans; spinach; squash; and canned potatoes. When a plant is subject to effluent limitations covering more than one commodity or subcategory, the plant discharge limitations shall be set by proration of limitations for each subcategory or commodity based on the total production covered by each commodity or subcategory.

§ 407.71 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR 401 shall apply to this subpart.

(b) The term "beets" shall include the processing of beets into the following product styles: canned and peeled, whole, sliced, diced, French style, sections, irregular, and other cuts but not dehydrated beets.

(c) The term "broccoli" shall include the processing of broccoli into the following product styles: frozen, chopped, spears, and miscellaneous cuts.

(d) The term "carrots" shall include the processing of carrots into the following product styles: canned and frozen, peeled, whole, sliced, diced, nuggets, crinkle cut, julienne, shoestrings, chunks, chips and other irregular cuts, and juices but not dehydrated carrots.

(e) The term "corn, canned" shall mean the processing of corn into the fol-

lowing product styles: canned, yellow and white, whole kernel, cream style, and on-the-cob.

(f) The term "corn, frozen" shall mean the processing of corn into the following product styles: frozen, yellow and white, whole kernel and whole cob.

(g) The term "dehydrated onions and garlic" shall mean the processing of dehydrated onions and garlic into the following product styles: air, vacuum, and freeze dried, all varieties, diced, strips, and other piece sizes ranging from large sliced to powder but not including green onions, chives, or leeks.

(h) The term "dehydrated vegetables" shall mean the processing of dehydrated vegetables in the following product styles: air, vacuum and freeze dried, blanched and unblanched, peeled and unpeeled, beets, bell peppers, cabbage, carrots, celery, chili pepper, horseradish, turnips, parsnips, parsley, asparagus, tomatoes, green beans, corn, spinach, green onion tops, chives, leeks, whole, diced, and any other piece size ranging from sliced to powder.

(i) The term "dry beans" shall mean the production of canned pinto, kidney, navy, great northern, red, pink or related type, with and without formulated sauces, meats and gravies.

(j) The term "lima beans" shall mean the processing of lima beans into the following product styles: canned and frozen, green and white, all varieties and sizes.

(k) The term "mushrooms" shall mean the processing of mushrooms into the following product styles: canned, frozen, dehydrated, all varieties, shapes and sizes.

(l) The term "canned onions" shall mean the processing of onions into the following product styles: canned, frozen, and fried (canned), peeled, whole, sliced, and any other piece size but not including frozen, battered onion rings or dehydrated onions.

(m) The term "peas" shall mean the processing of peas into the following product styles: canned and frozen, all varieties and sizes, whole.

(n) The term "squash" shall include the processing of pumpkin and squash into canned and frozen styles.

(o) The term "sauerkraut cutting" shall mean the trimming, cutting, and subsequent preparatory handling of cabbage necessary for and including brining and fermentation, and subsequent tank soaking.

(p) The term "sauerkraut canning" shall mean the draining and subsequent filling and canning of fermented cabbage and juice.

(q) The term "snap beans" shall mean the processing of snap beans into the following product styles: canned and frozen green, Italian, wax, string, bush, and other related varieties, whole, French, fancy, Extra Standard, Standard, and other cuts.

(r) The term "spinach" shall mean the processing of spinach and leafy greens into the following product styles: canned or frozen, whole leaf, chopped, and other related cuts.

(s) The term "potatoes" shall mean the processing of sweet potatoes into the fol-

lowing product styles: canned, peeled, solid, syrup, and vacuum packed. The following white potato product styles are also included: canned, peeled, white, all varieties, whole and sliced.

(t) The term "medium" shall mean a point source that processes a total annual raw material production of fruits, vegetables, specialties and other products that is between 1,816 kkg (2,000 tons) per year and 9,080 kkg (10,000 tons) per year.

(u) The term "large" shall mean a point source that processes a total annual raw material production of fruits, vegetables, specialties and other products that exceeds 9,080 kkg (10,000 tons) per year.

(v) The term "annual average" shall mean the maximum allowable discharge of BOD5 or TSS as calculated by multiplying the total mass (kkg or 1000 lb) of each raw commodity processed for the entire processing season or calendar year by the applicable annual average limitation.

(w) The terms "maximum for any one day" and "average of daily values for thirty consecutive days" shall be based on the daily average mass of raw material processed during the peak thirty consecutive day production period.

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

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

limitations must be approved by the administrator must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(a) The following limitations establish the quantity of BOD<sub>5</sub> controlled by this section, which may be discharged by a "medium" or "large" existing point source subject to the provisions of this subpart after application of the best practicable control technology currently available. Any vegetable processing plant which continuously or intermittently discharges process waste water during the processing season shall meet the annual average, maximum thirty day average, and maximum day BOD<sub>5</sub> limitations. Vegetable processing plants employing long term waste stabilization, where all or a portion of the process waste water discharge is stored for the entire processing season and released at a controlled rate with state approval, shall meet only the annual average BOD<sub>5</sub> limitations. The effluent limitations do not apply to single-commodity 100 percent canned corn processing plants of all sizes, and multi-commodity 100 percent frozen vegetable processing plants with total annual raw material production less than 7,264 kkg (8,000 tons) per year.

[Metric units, kg/kkg of raw material;  
English units, lb/1,000 lb of raw material]

BOD <sub>5</sub> effluent limitations			
Commodity (vegetables)	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—	Annual average shall not exceed—
Beets.....	1.01	0.71	0.57
Broccoli.....	3.83	2.21	1.47
Carrots.....	1.70	1.11	0.83
Corn:			
Canned.....	0.71	0.48	0.38
Frozen.....	1.45	0.84	0.56
Dehydrated onion/garlic.....	2.45	1.40	0.98
Dehydrated vegetables.....	2.98	1.70	1.21
Dry beans.....	2.50	1.51	1.07
Lima beans.....	3.68	2.19	1.51
Mushrooms.....	3.01	1.78	1.22
Onions (canned).....	3.09	1.83	1.25
Peas.....	2.42	1.50	1.03
Sauerkraut:			
Canning.....	0.50	0.30	0.21
Cutting.....	0.03	0.03	0.04
Snap beans.....	1.51	0.87	0.53
Spinach.....	2.37	1.35	0.91
Squash.....	0.90	0.59	0.46
Potatoes.....	0.90	0.66	0.55

(b) The following limitations establish the quantity of TSS controlled by the section, which may be discharged by a "medium" or "large" existing point source subject to the provisions of this subpart after application of the best practicable control technology currently available. Any vegetable processing plant which continuously or intermittently discharges process waste water during the processing season shall meet the annual average, maximum thirty day average, and maximum day TSS limitations. Vegetable processing plants employing long term waste stabilization, where all or a portion of the process waste water discharge is stored for the

entire processing season and released at a controlled rate with state approval, shall meet only the annual average TSS limitations. The effluent limitations do not apply to single-commodity 100 percent canned corn processing plants of all sizes, and multi-commodity 100 percent frozen vegetable processing plants with total annual raw material production less than 7,264 kkg (8,000 tons) per year.

[Metric units, kg/kkg of raw material;  
English units, lb/1,000 lb of raw material]

TSS effluent limitations			
Commodity (vegetables)	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—	Annual average shall not exceed—
Beets.....	1.88	1.47	1.12
Broccoli.....	6.78	4.57	2.65
Carrots.....	3.19	2.30	1.54
Corn:			
Canned.....	1.32	1.00	0.73
Frozen.....	3.13	2.30	1.57
Dehydrated onion/garlic.....	4.40	3.02	1.70
Dehydrated vegetables.....	5.30	3.65	2.21
Dry beans.....	4.48	3.13	1.97
Lima beans.....	6.50	4.63	2.70
Mushrooms.....	5.30	3.68	2.22
Onions (canned).....	5.51	3.78	2.28
Peas.....	4.36	3.11	2.02
Sauerkraut:			
Canning.....	0.89	0.63	0.40
Cutting.....	0.14	0.11	0.08
Snap beans.....	2.67	1.80	1.04
Spinach.....	4.10	2.81	1.64
Squash.....	1.64	1.23	0.87
Potatoes.....	1.60	1.37	1.09

(c) The following limitations establish the quality of pH controlled by this section, which may be discharged by a "medium" or "large" existing point source subject to the provisions of this subpart after application of the best practicable control technology currently available. The effluent limitations do not apply to single-commodity 100 percent canned corn processing plants of all sizes, and multi-commodity 100 percent frozen vegetable processing plants with total annual raw material production less than 7,264 kkg (8,000 tons) per year.

*Effluent characteristic* pH..... At all times within the range 6.0 to 9.5.

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

(a) The following effluent limitations establish the quantity of BOD<sub>5</sub> controlled by this section, which may be discharged by an existing point source subject to the provisions of this subpart after application of the best available technology economically achievable. Any vegetable processing plant which continuously or intermittently discharges process waste water during the processing season shall meet the annual average, maximum thirty day average, and maximum day BOD<sub>5</sub> limitations. Vegetable processing plants employing long term waste stabilization, where all or a portion of the process waste water discharge is stored for the entire processing

season and released at a controlled rate with state approval, shall meet only the annual average BOD<sub>5</sub> limitations. The effluent limitations do not apply to single-commodity 100 percent canned corn processing plants of all sizes, and multi-commodity 100 percent frozen vegetable processing plants with total annual raw material production less than 7,264 kkg (8,000 tons) per year.

[Metric units, kg/kkg of raw material;  
English units, lb/1,000 lb of raw material]

BOD <sub>5</sub> effluent limitations			
Commodity (vegetables)	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—	Annual average shall not exceed—
Beets:			
Medium.....	0.632	0.548	0.361
Large.....	0.632	0.548	0.361
Broccoli:			
Medium.....	1.894	1.837	0.557
Large.....	1.894	1.837	0.557
Carrots:			
Medium.....	0.966	0.729	0.397
Large.....	0.966	0.729	0.397
Corn:			
Canned:			
Medium.....	0.446	0.360	0.240
Large.....	0.446	0.360	0.240
Frozen:			
Medium.....	0.937	0.778	0.485
Large.....	0.937	0.778	0.485
Dehydrated onion/garlic:			
Medium.....	1.159	0.837	0.387
Large.....	1.159	0.837	0.387
Dehydrated vegetables:			
Medium.....	1.781	1.288	0.598
Large.....	1.781	1.288	0.598
Dry beans:			
Medium.....	1.403	1.021	0.450
Large.....	1.403	1.021	0.450
Lima beans:			
Medium.....	1.753	1.258	0.560
Large.....	1.753	1.258	0.560
Mushrooms:			
Medium.....	1.188	0.862	0.406
Large.....	1.188	0.862	0.406
Onions (canned):			
Medium.....	1.710	1.305	0.720
Large.....	1.710	1.305	0.720
Peas:			
Medium.....	0.925	0.758	0.427
Large.....	0.925	0.758	0.427
Sauerkraut:			
Canning:			
Medium.....	0.260	0.194	0.100
Large.....	0.260	0.194	0.100
Cutting:			
Medium.....	0.040	0.038	0.027
Large.....	0.040	0.038	0.027
Snap beans:			
Medium.....	1.048	0.747	0.320
Large.....	1.048	0.747	0.320
Spinach:			
Medium.....	1.170	0.830	0.346
Large.....	1.170	0.830	0.346
Squash:			
Medium.....	0.295	0.220	0.114
Large.....	0.295	0.220	0.114
Potatoes:			
Medium.....	0.572	0.470	0.342
Large.....	0.572	0.470	0.342

(b) The following limitations establish the quantity of TSS controlled by this section, which may be discharged by any existing point source subject to the provisions of this subpart after application of the best available technology economically achievable. Any vegetable processing plant which continuously or intermittently discharges process waste water during the processing season shall meet the annual average, maximum thirty day average, and maximum day TSS limitations. Vegetable processing plants employing long term waste stabilization, where all or a portion of the

process waste water discharge is stored for the entire processing season and released at a controlled rate with state approval, shall meet only the annual average TSS limitations. The effluent limitations do not apply to single-commodity 100 percent canned corn processing plants of all sizes, and multi-commodity 100 percent frozen vegetable processing plants with total annual raw material production less than 7,264 kkg (8,000 tons) per year.

[Metric units, kg/kg of raw material;  
English units, lb/1,000 lb of raw material]

TSS effluent limitations			
Commodity (vegetables)	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—	Annual average shall not exceed—
Beets:			
Medium.....	1.242	0.852	0.722
Large.....	0.682	0.548	0.361
Broccoli:			
Medium.....	3.342	1.671	1.114
Large.....	1.894	1.337	0.557
Carrots:			
Medium.....	1.756	1.046	0.809
Large.....	0.966	0.729	0.397
Corn:			
Canned:			
Medium.....	0.837	0.559	0.494
Large.....	0.446	0.369	0.240
Frozen:			
Medium.....	1.832	1.204	0.994
Large.....	0.987	0.778	0.485
Dehydrated onion/garlic:			
Medium.....	2.067	1.102	0.781
Large.....	1.159	0.837	0.387
Dehydrated vegetables:			
Medium.....	3.178	1.699	1.206
Large.....	1.781	1.283	0.598
Dry beans:			
Medium.....	2.509	1.363	0.981
Large.....	1.403	1.021	0.456
Lima beans:			
Medium.....	3.117	1.633	1.133
Large.....	1.753	1.258	0.566
Mushrooms:			
Medium.....	2.122	1.146	0.820
Large.....	1.188	0.862	0.406
Onions (canned):			
Medium.....	3.135	1.893	1.480
Large.....	1.719	1.305	0.726
Peas:			
Medium.....	1.818	1.108	0.871
Large.....	0.995	0.753	0.427
Sauerkraut:			
Canning:			
Medium.....	0.470	0.270	0.204
Large.....	0.260	0.194	0.100
Cutting:			
Medium.....	0.087	0.064	0.056
Large.....	0.046	0.038	0.027
Snap beans:			
Medium.....	1.858	0.955	0.633
Large.....	1.048	0.747	0.336
Spinach:			
Medium.....	2.075	1.038	0.611
Large.....	1.176	0.830	0.346
Squash:			
Medium.....	0.534	0.307	0.232
Large.....	0.295	0.220	0.114
Potatoes:			
Medium.....	1.090	0.803	0.707
Large.....	0.572	0.476	0.342

(c) The following limitations establish the quality of pH controlled by this section, which may be discharged by a "medium" or "large" existing point source subject to the provisions of this subpart after application of the best available control technology economically achievable. The effluent limitations do not apply to single-commodity 100 percent canned corn processing plants of all sizes, and multi-commodity 100 percent frozen vegetable processing plants with total annual raw material production less than 7,264 kkg (8,000 tons) per year.

*Effluent characteristic*  
pH -----  
*Effluent limitations*  
At all times within the range 6.0 to 9.5.

**§ 407.74 Pretreatment standards for existing sources.**

The pretreatment standards under section 307(c) of the Act for an existing source within the canned and preserved vegetables subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR 128, except that, for the purpose of this section, 40 CFR 128.121, 128.122, 128.132, and 128.133 shall not apply. The following pretreatment standard establishes the quantity and quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by any existing point source subject to the provisions of this subpart.

Pollutant or pollutant property	Pretreatment standard
BOD5	No limitation.
TSS	Do.

**§ 407.75 Standards of performance for new sources.**

(a) The following standards of performance establish the quantity of BOD5 controlled by this section, which may be discharged by a new point source subject to the provisions of this subpart. Any vegetable processing plant which continuously or intermittently discharges process waste water during the processing season shall meet the annual average, maximum thirty day average, and maximum day BOD5 limitations. Vegetable processing plants employing long term waste stabilization, where all or a portion of the process waste discharge is stored for the entire processing season and released at a controlled rate with state approval, shall meet only the annual average BOD5 limitations.

[Metric units, kg/kg of raw material;  
English units, lb/1,000 lb of raw material]

BOD5 effluent limitations			
Commodity (vegetables)	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—	Annual average shall not exceed—
Beets:			
Medium.....	0.682	0.548	0.361
Large.....	0.682	0.548	0.361
Broccoli:			
Medium.....	1.894	1.337	0.557
Large.....	1.894	1.337	0.557
Carrots:			
Medium.....	0.966	0.729	0.397
Large.....	0.966	0.729	0.397
Corn:			
Canned:			
Medium.....	0.446	0.369	0.240
Large.....	0.446	0.369	0.240
Frozen:			
Medium.....	0.987	0.778	0.485
Large.....	0.987	0.778	0.485
Dehydrated onion/garlic:			
Medium.....	1.159	0.837	0.387
Large.....	1.159	0.837	0.387
Dehydrated vegetables:			
Medium.....	1.781	1.283	0.598
Large.....	1.781	1.283	0.598

[English units, lb/1,000 lb of raw material]

BOD5 effluent limitations			
Commodity (fruit)	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—	Annual average shall not exceed—
Dry beans:			
Medium.....	1.403	1.021	0.456
Large.....	1.403	1.021	0.456
Lima beans:			
Medium.....	1.753	1.258	0.566
Large.....	1.753	1.258	0.566
Mushrooms:			
Medium.....	1.188	0.862	0.406
Large.....	1.188	0.862	0.406
Onions (canned):			
Medium.....	1.719	1.305	0.726
Large.....	1.719	1.305	0.726
Peas:			
Medium.....	0.995	0.753	0.427
Large.....	0.995	0.753	0.427
Sauerkraut:			
Canning:			
Medium.....	0.260	0.194	0.100
Large.....	0.260	0.194	0.100
Cutting:			
Medium.....	0.046	0.038	0.027
Large.....	0.046	0.038	0.027
Snap beans:			
Medium.....	1.048	0.747	0.336
Large.....	1.048	0.747	0.336
Spinach:			
Medium.....	1.176	0.830	0.346
Large.....	1.176	0.830	0.346
Squash:			
Medium.....	0.295	0.220	0.114
Large.....	0.295	0.220	0.114
Potatoes:			
Medium.....	0.572	0.476	0.342
Large.....	0.572	0.476	0.342

(b) The following limitations establish the quantity of TSS controlled by the section, which may be discharged by a new point source subject to the provisions of this subpart. Any vegetable processing plant which continuously or intermittently discharges process waste water during the processing season shall meet the annual average, maximum thirty day average, and maximum day TSS limitations. Vegetable processing plants employing long term waste stabilization, where all or a portion of the process waste water discharge is stored for the entire processing season and released at a controlled rate with state approval, shall meet only the annual average TSS limitations.

[Metric units, kg/kg of raw material;  
English units, lb/1,000 lb of raw material]

TSS effluent limitations			
Commodity (vegetables)	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—	Annual average shall not exceed—
Beets:			
Medium.....	1.242	0.852	0.722
Large.....	0.682	0.548	0.361
Broccoli:			
Medium.....	3.342	1.671	1.114
Large.....	1.894	1.337	0.557
Carrots:			
Medium.....	1.756	1.046	0.809
Large.....	0.966	0.729	0.397
Corn:			
Canned:			
Medium.....	0.837	0.559	0.494
Large.....	0.446	0.369	0.240
Frozen:			
Medium.....	1.832	1.204	0.994
Large.....	0.987	0.778	0.485
Dehydrated onion/garlic:			
Medium.....	2.067	1.102	0.781
Large.....	1.159	0.837	0.387

[Metric units, kg/kg of raw material;  
English units, lb/1,000 lb of raw material]

Commodity (fruits)	TSS effluent limitations		
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—	Annual average shall not exceed—
Dehydrated vegetables:			
Medium.....	3.178	1.690	1.206
Large.....	1.781	1.288	0.598
Dry beans:			
Medium.....	2.509	1.363	0.981
Large.....	1.403	1.021	0.480
Lima beans:			
Medium.....	3.117	1.633	1.138
Large.....	1.753	1.258	0.566
Mushrooms:			
Medium.....	2.122	1.146	0.820
Large.....	1.188	0.862	0.408
Onions (canned):			
Medium.....	3.185	1.893	1.480
Large.....	1.719	1.305	0.726
Peas:			
Medium.....	1.818	1.108	0.871
Large.....	0.995	0.758	0.427
Sauerkraut:			
Canning:			
Medium.....	0.470	0.270	0.201
Large.....	0.260	0.194	0.100
Cutting:			
Medium.....	0.087	0.064	0.056
Large.....	0.040	0.038	0.027
Snap beans:			
Medium.....	1.858	0.955	0.653
Large.....	1.048	0.747	0.326
Spinach:			
Medium.....	2.075	1.038	0.611
Large.....	1.176	0.830	0.346
Squash:			
Medium.....	0.534	0.307	0.232
Large.....	0.295	0.220	0.114
Potatoes:			
Medium.....	1.090	0.803	0.707
Large.....	0.572	0.476	0.312

(c) The following limitations establish the quality of pH controlled by this section, which may be discharged by a "medium" or "large" new point source subject to the provisions of this subpart.

Effluent characteristic	Effluent limitations
pH.....	At all times within the range 6.0 to 9.5.

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

The pretreatment standards under section 307(c) of the Act for a new source within the canned and preserved vegetables subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR 128, except that, for the purpose of this section, 40 CFR 128.121, 128.122, 128.132, and 128.133 shall not apply. The following pretreatment standard establishes the quantity and quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new point source subject to the provisions of this subpart.

Pollutant or pollutant property	Standard Pretreatment
BOD <sub>5</sub> .....	No limitation.
TSS.....	Do.

#### Subpart H—Canned and Miscellaneous Specialties Subcategory

##### § 407.80 Applicability; description of the canned and miscellaneous specialties subcategory.

The provisions of this subpart are applicable to discharges resulting from the processing of the following specialty products: added ingredients; baby food; corn, potato, and tortilla chips; ethnic foods; jams and jellies; mayonnaise and dressings; soups; and tomato-starch-cheese canned specialties. When a plant is subject to effluent limitations covering more than one commodity or subcategory, the plant discharge limitations shall be set by proration of limitations for each subcategory or commodity based on the total production covered by each commodity or subcategory.

##### § 407.81 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR 401 shall apply to this subpart.

(b) The term "added ingredients" shall mean the prepared sauces (prepared from items such as dairy products, starches, sugar, tomato sauce and concentrate, spices, and other related pre-processed ingredients) which are added during the canning and freezing of fruits and vegetables.

(c) The term "baby foods" shall mean the processing of canned fresh fruits and vegetables, meats, eggs, fruit juices, cereal, formulated entrees, desserts and snacks using fresh, pre-processed, or any combination of these and other food ingredients necessary for the production of infant foods.

(d) The term "chips, potato" shall mean the processing of fried chips, made from fresh or stored white potatoes, all varieties. In terms of finished potato chips, 1 kg (lb) of finished product is equivalent to 4 kg (lb) of raw material.

(e) The term "chips, corn" shall mean the processing of fried corn, made by soaking, rinsing, milling and extruding into a fryer without toasting. In terms of finished corn chips, 1 kg (lb) of finished product is equivalent to 0.9 kg (lb) of raw material.

(f) The term "chips, tortilla" shall mean the processing of fried corn, made by soaking, rinsing, milling, rolling into sheets, toasting and frying. In terms of finished tortilla chips, 1 kg (lb) of finished product is equivalent to 0.9 kg (lb) of raw material.

(g) The term "ethnic foods" shall mean the production of canned and frozen Chinese and Mexican specialties utilizing fresh and pre-processed bean sprouts, bamboo shoots, water chestnuts, celery, cactus, tomatoes, and other similar vegetables necessary for the production of the various characteristic product styles.

(h) The term "jams and jellies" shall include the production of jams, jellies

and preserves defined as follows: the combination of fruit and fruit concentrate, sugar, pectin, and other additives in an acidic medium resulting in a gelled and thickened finished product.

(i) The term "mayonnaise and salad dressings" shall be defined as the emulsified and non-emulsified semisolid food prepared from the combining of edible vegetable oil with acidifying, and egg yolk containing ingredients, or gum and starch combinations to which certain colorings, spices, and flavorings have been added.

(j) The term "soups" shall mean the combination of various fresh and pre-processed meats, fish, dairy products, eggs, flours, starches, vegetables, spices, and other similar raw ingredients into a variety of finished mixes and styles but not including dehydrated soups.

(k) The term "tomato-starch-cheese canned specialties" shall mean canned specialties resulting from a combination of fresh and pre-processed tomatoes, starches, cheeses, spices, and other flavorings necessary to produce a variety of products similar to but not exclusively raviolis, spaghetti, tamales, and enchiladas.

(l) The term "medium" shall mean a point source that processes a total annual raw material production of fruits, vegetables, specialties and other products that is between 1,816 kkg (2,000 tons) per year and 9,080 kkg (10,000 tons) per year.

(m) The term "large" shall mean a point source that processes a total annual raw material production of fruits, vegetables, specialties and other products that exceeds 9,080 kkg (10,000 tons) per year.

(n) The term "annual average" shall mean the maximum allowable discharge of BOD<sub>5</sub> or TSS, as calculated by multiplying the total mass (kkg or 1000 lb) of each final product produced for the entire processing season or calendar year by the applicable annual average limitation.

(o) The terms "maximum for any one day" and "average of daily values for thirty consecutive days" shall be based on the daily average mass of final product produced during the peak thirty consecutive day production period.

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

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which could affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result,



these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(a) The following limitations establish the quantity of BOD<sub>5</sub> controlled by this section, which may be discharged by a "medium" or "large" existing point source subject to the provisions of this subpart after application of the best practicable control technology currently available. Any food specialty plant which continuously or intermittently discharges process waste water during the processing season shall meet the annual average, maximum thirty day average, and maximum day BOD<sub>5</sub> limitations. Food specialty plants employing long term waste stabilization, where all or a portion of the process waste water discharge is stored for the entire processing season and released at a controlled rate with state approval, shall meet only the annual average BOD<sub>5</sub> limitations. Effluent limitations for the soups subcategory are based upon pounds (lb) or kilograms (kg) of pollutant per 1000 pounds (lb) or kilograms (kg) of raw ingredients.

[Metric units, kg/kg of final product;  
English units, lb/1,000 lb of final product]

BOD <sub>5</sub> effluent limitations			
Commodity (specialties)	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—	Annual average shall not exceed—
Added ingredients.....	0.95	0.55	0.33
Baby food.....	1.23	0.73	0.51
Chips:			
Corn.....	1.53	1.04	0.80
Potato.....	3.48	2.17	1.53
Tortilla.....	2.41	1.50	1.09
Ethnic foods.....	2.39	1.41	0.96
Jams/jellies.....	0.42	0.26	0.19
Mayonnaise and dressings.....	0.37	0.24	0.17
Soups.....	4.14	2.40	1.69
Tomato-starch-cheese canned specialties.....	1.87	1.08	0.72

(b) The following limitations establish the quantity of TSS controlled by this section, which may be discharged by a "medium" or "large" existing point source subject to the provisions of this subpart after application of the best practicable control technology currently available. Any food specialty plant which continuously or intermittently discharges process waste water during the processing season shall meet the annual average, maximum thirty day average, and maximum day TSS limitations. Food specialty plants employing long term waste stabilization, where all or a portion of the process waste water discharge is stored for the entire processing season and released at a controlled rate with state approval, shall meet only the annual average TSS limitations. Effluent limitations for the soups subcategory are based upon pounds (lb) or kilograms (kg) of pollutant per 1000 pounds (lb) or kilograms (kg) of raw ingredients.

[Metric units, kg/kg of final product;  
English units, lb/1,000 lb of final product]

TSS effluent limitations			
Commodity (specialties)	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—	Annual average shall not exceed—
Added ingredients.....	0.00	0.00	0.00
Baby food.....	2.23	1.35	0.93
Chips:			
Corn.....	2.90	2.17	1.53
Potato.....	0.25	4.49	2.67
Tortilla.....	4.34	3.11	2.01
Ethnic foods.....	4.23	2.91	1.73
Jams/jellies.....	0.70	0.51	0.35
Mayonnaise and dressings.....	0.67	0.49	0.33
Soups.....	7.53	5.09	3.10
Tomato-starch-cheese canned specialties.....	3.31	2.23	1.59

(c) The following limitations establish the quality of pH controlled by this section, which may be discharged by a "medium" or "large" existing point source subject to the provisions of this subpart after application of the best practicable control technology currently available.

Effluent characteristic	Effluent limitations
Oil and grease.....	Shall not exceed 20mg/l.
pH.....	At all times within the range 6.0 to 9.5.

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

(a) The following limitations establish the quantity of BOD<sub>5</sub> controlled by this section, which may be discharged by an existing point source subject to the provisions of this subpart after application of the best available technology economically achievable. Any food specialty plant which continuously or intermittently discharges process waste water during the processing season shall meet

the annual average, maximum thirty day average, and maximum day BOD<sub>5</sub> limitations. Food specialty plants employing long term waste stabilization, where all or a portion of the process waste water discharge is stored for the entire processing season and released at a controlled rate with state approval, shall meet only the annual average BOD<sub>5</sub> limitations. Effluent limitations for the soups subcategory are based upon pounds (lb) or kilograms (kg) of pollutants per 1000 pounds (lb) or kilograms (kg) of raw ingredients.

[Metric units, kg/kg of final product;  
English units, lb/1,000 lb of final product]

BOD <sub>5</sub> effluent limitations			
Commodity (specialties)	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—	Annual average shall not exceed—
Added ingredients:			
Medium.....	0.750	0.550	0.330
Large.....	0.750	0.550	0.330
Baby food:			
Medium.....	0.537	0.611	0.250
Large.....	0.539	0.611	0.250
Chips:			
Corn:			
Medium.....	1.112	0.898	0.557
Large.....	1.112	0.898	0.557
Potato:			
Medium.....	1.653	1.244	0.629
Large.....	1.653	1.244	0.629
Tortilla:			
Medium.....	1.665	1.233	0.676
Large.....	1.665	1.233	0.676
Ethnic foods:			
Medium.....	1.533	1.143	0.550
Large.....	1.533	1.143	0.550
Jams/jellies:			
Medium.....	0.157	0.142	0.080
Large.....	0.157	0.142	0.080
Mayonnaise and dressings:			
Medium.....	0.210	0.163	0.097
Large.....	0.210	0.163	0.097
Soups:			
Medium.....	2.766	2.000	0.629
Large.....	2.766	2.000	0.629
Tomato-starch-cheese canned specialties:			
Medium.....	0.681	0.705	0.319
Large.....	0.681	0.705	0.319

(b) The following limitations establish the quantity of TSS controlled by this section, which may be discharged by an existing point source subject to the provisions of this subpart after application of the best available technology economically achievable. Any food specialty plant which continuously or intermittently discharges process waste water during the processing season shall meet the annual average, maximum thirty day average, and maximum day TSS limitations. Food specialty plants employing long term waste stabilization, where all or a portion of the process waste water discharge is stored for the entire processing season and released at a controlled rate with state approval, shall meet only the annual average TSS limitations. Effluent limitations for the soups subcategory are based upon pounds (lb) or kilograms (kg) of pollutants per 1000 pounds (lb) or kilograms (kg) of raw ingredients.

[Metric units, kg/kg of final product;  
English units, lb/1,000 lb of final product]

TSS effluent limitations			
Commodity (specialties)	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—	Annual average shall not exceed—
Added ingredients:			
Medium.....	0.000	0.000	0.000
Large.....	0.000	0.000	0.000
Baby food:			
Medium.....	1.501	0.815	0.586
Large.....	0.839	0.611	0.290
Chips:			
Corn:			
Medium.....	2.117	1.386	1.143
Large.....	1.142	0.898	0.557
Potato:			
Medium.....	3.032	1.714	1.274
Large.....	1.653	1.244	0.629
Tortilla:			
Medium.....	3.025	1.789	1.377
Large.....	1.663	1.253	0.670
Ethnic foods:			
Medium.....	2.826	1.491	1.046
Large.....	1.588	1.143	0.520
Jams/jellies:			
Medium.....	0.342	0.208	0.164
Large.....	0.187	0.142	0.080
Mayonnaise and dressings:			
Medium.....	0.386	0.245	0.198
Large.....	0.210	0.163	0.097
Soups:			
Medium.....	4.934	2.638	1.872
Large.....	2.766	2.000	0.929
Tomato-starch-cheese canned specialties:			
Medium.....	1.745	0.918	0.643
Large.....	0.981	0.705	0.319

(c) The following limitations establish the quality of pH controlled by this section, which may be discharged by a "medium" or "large" existing point source subject to the provisions of this subpart.

Effluent characteristic	Effluent limitations
Oil and grease..	Shall not exceed 10 mg/l.
pH .....	At all times within the range 6.0 to 9.5.

#### § 407.84 Pretreatment standards for existing sources.

The pretreatment standards under section 307(c) of the Act for an existing source within the canned and miscellaneous specialties subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR 128, except that, for the purpose of this section, 40 CFR 128.121, 128.122, 128.132, and 128.133 shall not apply. The following pretreatment standard establishes the quantity and quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by any existing point source subject to the provisions of this subpart.

Pollutant or pollutant property	Pretreatment standard
BOD <sub>5</sub> .....	No limitation.
TSS .....	Do.
Oil and grease.....	Do.

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

(a) The following standards of performance establish the quantity of BOD<sub>5</sub>

controlled by this section, which may be discharged by a new point source subject to the provisions of this subpart. Any food specialty plant which continuously or intermittently discharges process waste water during the processing season shall meet the annual average, maximum thirty day average, and maximum day BOD<sub>5</sub> limitations. Food specialty plants employing long term waste stabilization, where all or a portion of the process waste water discharge is stored for the entire processing season, shall meet only the annual average BOD<sub>5</sub> limitations. Effluent limitations for the soups subcategory are based upon pounds (lb) or kilograms (kg) of pollutants per 1000 pounds (lb) or kilograms (kg) of raw ingredients.

[Metric units, kg/kg of final product;  
English units, lb/1,000 lb of final product]

BOD <sub>5</sub> effluent limitations			
Commodity (specialties)	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—	Annual average shall not exceed—
Added ingredients:			
Medium.....	0.780	0.550	0.230
Large.....	0.780	0.550	0.230
Baby food:			
Medium.....	0.839	0.611	0.290
Large.....	0.839	0.611	0.290
Chips:			
Corn:			
Medium.....	1.142	0.898	0.557
Large.....	1.142	0.898	0.557
Potato:			
Medium.....	1.653	1.244	0.629
Large.....	1.653	1.244	0.629
Tortilla:			
Medium.....	1.663	1.253	0.670
Large.....	1.663	1.253	0.670
Ethnic foods:			
Medium.....	1.588	1.143	0.520
Large.....	1.588	1.143	0.520
Jams/jellies:			
Medium.....	0.187	0.142	0.080
Large.....	0.187	0.142	0.080
Mayonnaise and dressings:			
Medium.....	0.210	0.163	0.097
Large.....	0.210	0.163	0.097
Soups:			
Medium.....	2.766	2.000	0.929
Large.....	2.766	2.000	0.929
Tomato-starch-cheese canned specialties:			
Medium.....	0.981	0.705	0.319
Large.....	0.981	0.705	0.319

(b) The following limitations establish the quantity of TSS controlled by this section, which may be discharged by a new point source subject to the provisions of this subpart. Any food specialty plant which continuously or intermittently discharges process waste water during the processing season shall meet the annual average, maximum thirty day average, and maximum day TSS limitations. Food specialty plants employing long term waste stabilization, where all or a portion of the process waste water discharge is stored for the entire processing season and released at a controlled rate with state approval, shall meet only the annual average TSS limitations. Effluent limitations for the soups subcategory are based upon pounds (lb) or kilograms (kg) of pollutants per 1000 pounds (lb) or kilograms (kg) of raw ingredients.

[Metric units, kg/kg of final product;  
English units, lb/1,000 lb of final product]

TSS effluent limitations			
Commodity (specialties)	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—	Annual average shall not exceed—
Added ingredients:			
Medium.....	0.000	0.000	0.000
Large.....	0.000	0.000	0.000
Baby food:			
Medium.....	1.501	0.815	0.586
Large.....	0.839	0.611	0.290
Chips:			
Corn:			
Medium.....	2.117	1.386	1.143
Large.....	1.142	0.898	0.557
Potato:			
Medium.....	3.032	1.714	1.274
Large.....	1.653	1.244	0.629
Tortilla:			
Medium.....	3.025	1.789	1.377
Large.....	1.663	1.253	0.670
Ethnic foods:			
Medium.....	2.826	1.491	1.046
Large.....	1.588	1.143	0.520
Jams/jellies:			
Medium.....	0.342	0.208	0.164
Large.....	0.187	0.142	0.080
Mayonnaise and dressings:			
Medium.....	0.386	0.245	0.198
Large.....	0.210	0.163	0.097
Soups:			
Medium.....	4.934	2.638	1.872
Large.....	2.766	2.000	0.929
Tomato-starch-cheese canned specialties:			
Medium.....	1.745	0.918	0.643
Large.....	0.981	0.705	0.319

(c) The following limitations establish the quality of pH controlled by this section, which may be discharged by a "medium" or "large" new point source subject to the provisions of this subpart.

Effluent characteristic	Effluent limitations
Oil and grease..	Shall not exceed 10 mg/l.
pH .....	At all times within the range 6.0 to 9.5.

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

The pretreatment standards under section 307(c) of the Act for a new source within the canned and miscellaneous specialty subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR 128, except that, for the purpose of this section, 40 CFR 128.121, 128.122, 128.132, and 128.133 shall not apply. The following pretreatment standard establishes the quantity and quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new point source subject to the provisions of this subpart.

Pollutant or pollutant property	Pretreatment standard
BOD <sub>5</sub> .....	No limitation.
TSS .....	Do.
Oil and grease.....	Do.

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