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TITLE 6—AGRICULTURAL CREDIT

Chapter IV—Commodity Stabilization Service and Commodity Credit Corporation, Department of Agriculture

Subchapter B—Loans, Purchases, and Other Operations

[1958 Honey Bulletin 1]

PART 434—HONEY

SUBPART—1958 HONEY PRICE SUPPORT PROGRAM

This bulletin contains the regulations applicable to the 1958 Honey Price Support Program whereby the Secretary of Agriculture makes price support for extracted honey available through the Commodity Credit Corporation and the Commodity Stabilization Service (hereinafter referred to as CCC and CSS respectively).

Sec.

AUTHORITY: §§ 434.901 to 434.926 issued under sec. 4, 62 Stat. 1070 as amended; 15 U. S. C. 714b. Interpret or apply sec. 5, 62 Stat. 1072, secs. 201, 401, 63 Stat. 1052, 1054; 15 U. S. C. 714c, 7 U. S. C. 1446, 1421.

§ 434.901 *Administration.* This subpart will be administered by the Sugar Division, CSS, under the general direction and supervision of the Executive Vice President, CCC. In the field the program will be carried out by State and County Agricultural Stabilization and Conservation offices (hereinafter called State and county offices) under the supervision of State and County Agricultural Stabilization and Conservation Committees (hereinafter called State and county committees) and by CSS commodity offices. Producers interested in participating in the program should contact their county offices, through which the price support documents will be distributed. All documents will be completed and approved by the county offices, which will retain copies thereof. State and county committees and offices and CSS commodity offices do not have authority to modify or waive any of the provisions of this subpart, or any amendments or supplements to this subpart.

§ 434.902 *Availability of price support*—(a) *Method of support.* Price support on extracted honey will be made available to producers through loans on such honey stored in approved farm storage, and through purchase agreements.

(b) *Area.* Farm-storage loans and purchase agreements will be available wherever eligible honey is produced in the continental United States.

(c) *Where to apply.* Application for price support should be made at the county office of the county in which the producer's place of operation is located or, if the producer has more than one place of operation, at the county office of the county in which the honey is stored.

(d) *When to apply.* Loans and purchase agreements will be available from April 1, 1958, through December 31, 1958, in Florida, Georgia, South Carolina, Alabama, Mississippi, Louisiana, Texas, New Mexico, Arizona and California. In all other States, loans and purchase agreements will be available from July 1, 1958, through December 31, 1958. Applicable documents must be signed by the producer and delivered to the county office not later than December 31, 1958.

(e) *Eligible producer.* (1) An eligible producer shall be any person, including a partnership, association or corporation, who, in 1958, extracts honey produced by bees owned by him.

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CODIFICATION GUIDE

A numerical list of the parts of the Code of Federal Regulations affected by documents published in this issue. Proposed rules, as opposed to final actions, are identified as such.

CODIFICATION GUIDE—Con.

(2) Bona fide producer-owned and producer-controlled cooperative marketing associations of honey producers shall be eligible for a loan or purchase agreement on eligible honey received from and produced by members of the association: *Provided*, That (i) the producer members are bound by contract to deliver their eligible honey to the association free from all liens and encumbrances; (ii) the proceeds of the eligible honey marketed by the association are shared proportionately among the producer members according to the grade and quantity of such honey each delivers to the association; (iii) the association has authority to obtain a loan on the security of the honey and to give a lien thereon as well as authority to sell such honey. Only honey received from producers under such conditions may be delivered to CCC under a loan or purchase agreement. All determinations with respect to whether or not a given organization is a cooperative marketing association of producers pursuant to this section, shall be made by or under the direction of the State committee. The word "producer" as used hereafter shall be deemed to include such cooperative marketing associations of producers.

§ 434.903 *Eligible honey.* Any honey other than that described in § 434.904 which at the time it is placed under loan or tendered for purchase under a purchase agreement meets the following requirements is eligible for price support.

(a) The honey must be of the 1958 crop, produced and extracted in the continental United States by an eligible producer.

(b) The honey shall be packed in containers of a capacity of not less than 5 gallons nor greater than 70 gallons, and of a style used in normal commercial practice in the honey industry. Five-gallon containers shall be filled with 60 pounds net of honey. Larger containers shall be filled to their rated capacities.

(1) The 5-gallon containers shall be new, clean, sound, uncased and free from appreciable dents and rust. The handle of each container shall be firm and strong enough to permit carrying the filled can. The can closures shall be complete, including the cap liner prescribed for the particular style of can. The treads on both the cap and the can opening shall not be damaged in any way that will prevent a tight seal. Cans which are punctured, or which have been punctured and resealed by soldering, will not be acceptable.

(2) Steel drums shall be new, or used drums which have been reconditioned

both inside and outside. Steel drums must be clean, and treated to prevent rusting. The drums must be fitted with gaskets which will provide a tight seal when closed.

(3) Other commercial containers, such as wooden barrels or kegs, which are new or which have been reconditioned, are acceptable if sound, clean and leakproof. Such containers must be closed with appropriate leakproof closures.

(c) The beneficial interest in the honey must be in the producer tendering the honey for a loan, or for delivery under a purchase agreement, and must always have been in him, or must have been in him and a former producer whom, before the honey was extracted, he succeeded as owner of the bees producing the honey. In the case of a cooperative marketing association these stipulations as to beneficial interest shall apply to each producer delivering to the association.

(d) The honey must be equal to or better than Grade C of the United States Standards for Grades of Extracted Honey, effective April 16, 1951: *Provided, however*, That in areas in which the State committee determines that existing conditions make fermentation of high moisture honey probable during the period of storage, the maximum moisture content allowable may be reduced by such committee from 20 percent to 18.6 percent for any or all floral sources.

(e) Honey offered for a farm-storage loan must have been stored in containers specified in paragraph (b) of this section, for at least 15 days prior to drawing the inspection samples. The containers shall be stacked upright in a manner which will prevent damage to the containers in the stacks, and so arranged that the containers in the stacks are easily accessible for inspection.

§ 434.904 *Ineligible honey.* Andromeda, Athel, Bitterweed, Broomweed, Cajeput, Carrot, Chinquapin, Dog Fennel, Desert Hollyhock, Gumweed, Mescal, Onion, Prickly Pear, Prune, Queen's Delight, Rabbit Brush, Snowbrush (Ceanothus), Snow-on-the-Mountain, Tarweed, and similar objectionably flavored honeys or objectionably flavored blends of honey as determined by the Director, Sugar Division, CSS, will not be eligible for price support regardless of whether they meet other eligibility requirements.

§ 434.905 *Disbursement of loans.* Disbursement of loans will be made to producers by financial institutions under separate regulations published in the FEDERAL REGISTER, or by county offices by means of sight drafts drawn on CCC. No disbursement shall be made later than 15 days after the final date of the availability of loans, unless recommended by the State committee and approved by the Executive Vice President, CCC. Payment in cash, credit to the producer's account, or the drawing of a check or draft, shall constitute disbursement. The producer shall not present the loan documents for disbursement of funds unless the honey is in existence, in approved storage, and in good condition. If the honey was not in existence, in approved storage, or in good condition at the time the producer received the disbursement, the proceeds shall be promptly refunded by the producer.

§ 434.906 *Financial institutions.* Under the applicable regulations published in the FEDERAL REGISTER a financial institution is a commercial bank which accepts demand deposits, an association organized pursuant to State law and supervised by State banking authorities, or a Production Credit Association.

§ 434.907 *Approved storage.* Loans will be made only on honey in approved storage. Purchase agreements may be executed without regard to whether the honey is in approved storage.

(a) *Farm storage.* Approved farm storage shall consist of storage structures located on or off the farm (excluding public warehouses) which are determined by the county office to be so located and so substantially and permanently constructed as to afford safe storage of the honey. In connection with approving farm storage, consideration shall be given to the extent to which the storage structures are clean, dry, weatherproof and can be locked. If such structure is used to house honey other than that which is covered by a single price support loan, a suitable partition shall be used to preserve the identity of the honey covered by each price support loan, and to segregate it from any other honey in the storage structure.

(b) *Cooperative storage.* Approved storage for cooperative marketing associations shall meet the requirements stated in paragraph (a) of this section. Preservation of the identity of each producer's honey in the lot covered by the mortgage will not be required.

§ 434.908 *Applicable forms.* The approved forms consist of the loan and purchase agreement forms and such other forms and documents as are specified in this subpart and which, together with the provisions of this subpart, govern the rights and responsibilities of the producer. Note and supplemental loan agreements, chattel mortgages, and purchase agreements, must be dated, signed by the producer, and delivered to the county office on or before the final date of availability of loans or purchase agreements. Note and supplemental loan agreements, and chattel mortgages, must have State and documentary revenue stamps affixed thereto when required by law. Loan and purchase agreement documents executed by an administrator, executor or trustee will be acceptable only if legally valid.

(a) *Farm-storage loans.* Approved forms shall consist of Commodity Loan Form A, Producer's Note and Supplemental Loan Agreement, secured by Commodity Loan Form AA, Commodity Chattel Mortgage, and such other forms and documents as may be required by CCC. These forms shall also be used for honey stored by cooperative marketing associations of producers in warehouses under their control.

(b) *Purchase agreement documents.* The purchase agreement forms shall consist of the Purchase Agreement (Commodity Purchase Form 1) and Purchase Agreement Settlement (Commodity Purchase Form 4) signed by the producer and approved by the county office, and such other forms and documents as may be required by CCC.

§ 434.909 *Liens.* If there are any liens or encumbrances on honey tendered for a loan or for delivery under purchase agreement, waivers acceptable to the county committee must be obtained.

§ 434.910 *Service charges.* Producers shall pay the following service charges on the quantity of honey placed under loan or specified in the purchase agreement. In the case of loans the service charges, except preliminary service charges, shall be collected from the proceeds of the loan at the time the loan is disbursed. In the case of purchase agreements, the service charges shall be collected at the time the purchase agreement is completed. An additional service charge shall be paid on any additional quantity delivered to and accepted by CCC under a loan.

(a) Rates:

Method of price support	Rate (per 100 pounds net)	Minimum charge
	Cents	
Farm-storage loan	5	$3.00
Purchase agreement	2½	1.50

(b) State committees are authorized to require prepayment of $3.00 of the service charge on a farm-storage loan at the time the producer applies for the loan.

(c) No refund of service charges will be made.

§ 434.911 *Determination of quantity.* (a) Determination of quantity of honey in connection with applications for farm-storage loans, shall be computed on the basis of 55 pounds for each 5-gallon can, and 11 pounds for each gallon of rated capacity for containers larger than 5 gallons.

(b) Determination of quantity at time of acquisition by CCC of honey under loan or purchase agreement shall be made by or under the direction of the State committee. The quantity determination of honey acquired in 5-gallon cans shall be based upon the number of 5-gallon cans times the average per can net weight of honey rounded to the next lowest whole pound, or 60 pounds per can net weight of honey, whichever is lower. The weight determination of honey acquired in larger containers shall be the actual net weight of the honey.

§ 434.912 *Determination of grade and color.* (a) Determination of grade and color in connection with applications for farm-storage loans shall be made on the basis of samples drawn by the county office and transmitted prepaid to an office of the Processed Products Standardization and Inspection Branch, Fruit and Vegetable Division, Agricultural Marketing Service. Samples shall be provided by the producer at no cost to CCC. The cost of inspection shall be

collected by the county office from the producer for the account of the Processed Products Standardization and Inspection Branch at the time samples are drawn.

(b) Determination of grade and color, at time of acquisition by CCC, of honey under loan or purchase agreement, including the drawing of the samples, shall be by representatives of the Processed Products Standardization and Inspection Branch, Fruit and Vegetable Division, AMS. Samples shall be provided by the producer at no cost to CCC. The cost of such sampling, and of grade and color determination at time of acquisition, shall be paid by CCC.

(c) Table honey shall be so segregated according to color that the color for the lot as a whole is within the tolerances for color variations as outlined in the United States Standards for Grades of Extracted Honey, effective April 16, 1951. If a lot of honey is not segregated so that it can be certified in accordance with the foregoing the loan, settlement for the loan, or purchase under purchase agreement, shall be made on the basis of the darkest color shown on the inspection certificate.

(d) Table honey shall be so segregated from nontable honey that it can be certified for loan, settlement under loan, or purchase agreement, in accordance with the categories outlined in § 434.925. If a lot of honey is not segregated so that it can be given a single classification as either table or nontable honey the loan, settlement for the loan, or purchase under purchase agreement, shall be made on the basis of nontable honey.

(e) In the case of blends of table and nontable honeys the loan, settlement under loan, or purchase under purchase agreement, shall be made on the basis of nontable honey. If any blends of honey contain ineligible honey, the lot as a whole shall be considered ineligible.

§ 434.913 *Maturity of loans.* Loans shall mature on demand, but not later than March 31, 1959, in all States.

§ 434.914 *Set-offs.* If the producer is indebted to CCC on any accrued obligation, or if any installment or installments on any loan made available by CCC on farm-storage facilities or mobile drying equipment are past due, or are payable under the provisions of the note evidencing such loan out of the proceeds of the price support loan or purchase, he must designate CCC or the lending agency holding such note as the payee of the proceeds of the price support purchase or loan to the extent of such indebtedness or installments, but not to exceed that portion of the proceeds remaining after deduction of loan service charges and amounts due prior lienholders. If the producer is indebted to any other agency of the United States, and such indebtedness is listed on the county debt register, he must designate such agency as the payee of the proceeds as provided in this section. Indebtedness to CCC or to a lending agency, as provided in this section, shall be given first consideration after claims of prior lienholders. Compliance with the provisions of this section shall not constitute a waiver of any right of the producer to contest the justness of the indebtedness involved either by administrative appeal or legal action.

§ 434.915 *Interest rate.* Loans shall bear interest at the rate of 3½ per centum per annum from the date of disbursement of the loan: *Provided*, That if there is a default in satisfaction of the loan the amount remaining due on the date of such default (including accrued interest), and any costs incurred by CCC, shall bear interest thereafter at the rate of 6 per centum per annum: *Provided, further*, That if the producer has made a fraudulent representation in the loan documents or in obtaining the loan, the principal amount of the loan, and any costs incurred by CCC, shall bear interest from the date of disbursement at the rate of 6 per centum per annum.

§ 434.916 *Transfer of producer's interest*—(a) *Farm-storage loans.* The producer shall not transfer either his remaining interest in, or his right to redeem, honey mortgaged as security for a farm-storage loan. A producer who wishes to liquidate all or part of his loan by contracting for the sale of the honey, must obtain written prior approval of the county office on Commodity Loan Form 12 to remove the honey from storage when the proceeds of the sale are needed to repay all or any part of the loan. Any such approval shall be subject to the terms and conditions set out in Commodity Loan Form 12, copies of which may be obtained by producers or prospective purchasers at the county office.

(b) *Purchase agreements.* The producer may not assign his interest in a purchase agreement.

§ 434.917 *Safeguarding the honey.* The producer obtaining a farm-storage loan is obligated to maintain the storage structure in good repair, and to keep the honey in good condition, until the loan is liquidated.

§ 434.918 *Insurance.* CCC will not require the producer to insure the honey placed under loan; however, if the producer insures such honey and indemnity is paid thereon, such indemnity shall inure to the benefit of CCC to the extent of its interest, after first satisfying the producer's equity in the honey involved in the loss.

§ 434.919 *Loss or damage to honey.* If the honey is going out of condition, or is in danger of going out of condition, the producer shall notify the county office. The producer is responsible for any loss in quantity or quality of the honey placed under farm-storage loan except that, subject to the provisions of § 434.918, physical loss or damage occurring after disbursement of the loan funds to the producer, without fault, negligence, or conversion on the part of the producer, resulting solely from external causes other than insect infestation, vermin, rodents, or other animals, will be assumed by CCC to the extent of the settlement value of the quantity of the honey lost, stolen, or destroyed, or to the extent of the damage as determined by CCC, provided the producer has given the county office immediate notice, confirmed in writing, or such loss or damage, and provided there has been no fraudulent representation made by the producer in the loan documents or in obtaining the loan. Physical loss or damage occurring prior to disbursement of the loan funds to the producer will not be assumed by CCC. If disbursement of funds is made by sight draft or check, the date of the draft or check shall constitute the date of disbursement of the funds.

§ 434.920 *Personal liability of the producer for the honey.* The making of any fraudulent representation by the producer in the loan documents, or in obtaining the loan, or the conversion or unlawful disposition of any portion of the honey by him, may render the producer subject to criminal prosecution under Federal law, and will render him personally liable for the amount due on the loan and for any resulting expense incurred by CCC.

§ 434.921 *Release of the honey under loan.* A producer may at any time obtain release of the honey remaining under loan by paying to CCC the principal amount of the note, plus charges and accrued interest. Upon payment of the note, the county office shall arrange for the release of the chattel mortgage. Partial release of the honey prior to maturity may be arranged with the county office after making payment for the quantity of the honey to be released, plus charges and accrued interest. However, in the event the quantity of the honey contained in the storage structure and covered by the chattel mortgage is greater than the quantity with respect to which the loan was computed application may be made to the county office for release of all or part of such excess without payment on the loan.

§ 434.922 *Liquidation of loans and delivery under purchase agreements*—(a) *Farm-storage loans.* The producer is required to pay off his loan on or before maturity, or to deliver the honey in accordance with instructions of the county office. Delivery points for farm-storage loans shall be limited to those recommended by the State committee and approved by the Director, Sugar Division, CSS. If the producer desires to deliver the honey he should, prior to maturity, give the county office notice in writing of his intention to do so. The producer may, however, pay off his loan and redeem his honey at any time prior to delivery to CCC or removal by CCC. In the event the farm is sold or there is a change of tenancy, the honey under a farm-storage loan may be delivered before the maturity date of the loan, upon prior approval by the county office, or may be delivered before the maturity date of the loan for other reasons upon prior approval of the Executive Vice President of CCC. Settlement will be made at the applicable support rate in effect at the approved point of delivery, subject to the provisions of the producer's note and supplemental loan

agreement and this subpart, on the basis of the quantity, floral source, color and grade at the time of delivery as determined in accordance with §§ 434.911 (b) and 434.912 (b) (c) (d) and (e). If farm-stored honey is delivered to CCC prior to March 31, 1959, upon request of the producer and with the approval of CCC, the loan settlement shall be reduced at the rate of $\frac{1}{20}$ of a cent per pound per month or fraction thereof, from the date delivery is accomplished, or from the final date for delivery shown in the delivery instructions issued by the county office, whichever is earlier, to and including March 31, 1959. The settlement value for honey acquired by CCC which does not meet requirements with respect to grade shall be determined at the support rate for the honey placed under loan less the estimated cost, as determined by CCC, for conditioning such honey to conform to the grade of honey described in the loan documents. The settlement value for honey acquired by CCC which does not meet requirements because of floral source, or which cannot be conditioned to meet grade requirements, shall be the actual market value of such honey, if any, as determined by CCC. The producer shall pay CCC for any deficiency in quantity, floral source, grade or color. Any payment due the producer on settlement may be made by sight draft drawn on CCC by the county office.

(b) *Handling small amounts on settlement.* If the settlement value of the honey delivered under a farm-storage loan exceeds the amount due on the loan (excluding interest) by more than $3.00, such amount will be paid to the producer on the basis of the settlement documents. To avoid administrative costs of making small payments, if the amount found due the producer in such settlement is $3.00 or less such amount will be paid only upon his request. If the settlement value of the honey is less than the amount due on the loan (excluding interest), the amount of the deficiency, plus interest, shall be paid to CCC, or may be set off against any payment which would otherwise be due to the producer under any agricultural program administered by the Secretary of Agriculture, or any other payments which are due or may become due to the producer from CCC or any other agency of the United States. To avoid administrative costs of handling small accounts a deficiency of $3.00 or less, including interest, may be disregarded unless demand therefor is made by CCC upon the producer.

(c) *Purchase agreements.* The producer who signs a purchase agreement (Commodity Purchase Form 1) shall not be obligated to sell any quantity of the honey to CCC. However, the quantity stated in the purchase agreement shall be the maximum quantity he may sell to CCC. If the producer who signs a purchase agreement wishes to sell the honey to CCC, he shall have a 30-day period prior to the loan maturity date during which he must notify the county office of his intention to sell. Deliveries shall not be accepted before March 31, 1959, or such earlier date as may be prescribed by the Executive Vice president, CCC. The producer may be required to retain the honey for a period of 60 days after the loan maturity date without any cost to CCC. Delivery under purchase agreements shall be made in accordance with instructions issued by the county office. Delivery points for purchase agreements shall be limited to those recommended by the State committee and approved by the Director, Sugar Division, CSS. Honey delivered under a purchase agreement must meet the requirements for eligible honey as set forth in §§ 434.903 and 434.912 (e). Payment for eligible honey delivered to CCC under purchase agreements shall be at the applicable support rate in effect at the approved delivery point, on the basis of the quantity, floral source, color, and grade at the time of delivery as determined in accordance with §§ 434.911 (b) and 434.912 (b), (c), (d), and (e). Such payment will be made to the producer by sight draft drawn on CCC by the county office.

§ 434.923 *Foreclosure.* If the loan is not satisfied upon maturity by payment or by delivery of the honey CCC is authorized to remove the honey from storage; and also to sell, assign, transfer, and deliver the honey or documents evidencing title thereto at such time, in such manner, and upon such terms as CCC may determine, at public or private sale, and CCC may become the purchaser of the whole or any part of the honey. Any such disposition may similarly be effected without removing the honey from storage. Any sum due the producer as a result of the sale of the honey, after deducting the amount of the note, interest, and charges, shall be payable only to the producer without right of assignment by him. If honey removed by CCC from storage is sold at less than the amount due on the loan (excluding interest), and if the quantity, floral source, grade, or color of the honey as removed is lower than that on which the loan was computed, the producer shall pay to CCC the difference between the amount due on the loan and the higher of the sales proceeds or the settlement value of the honey removed by CCC, plus interest thereon.

§ 434.924 *Charges not to be assumed by CCC.* CCC will not pay or assume any insurance charges, storage charges, inspection charges to determine eligibility for a loan, or any handling or processing charges necessary to make the honey meet the grade requirements.

§ 434.925 *Support rates.* Loans will be made, and honey delivered under purchase agreements will be purchased, at the support rates set forth below:

For States of Montana, Wyoming, Colorado, New Mexico and States West Thereof

	Rate (cents per pound)
1. White and lighter table honey	9.8
2. Extra Light Amber table honey	9.3
3. Nontable and other table honey	7.8

For All States East of Montana, Wyoming, Colorado and New Mexico

	Rate (cents per pound)
1. White and lighter table honey	10.7
2. Extra Light Amber table honey	10.2
3. Nontable and other table honey	8.7

Loans will be made at the applicable support rate established for the State in which the honey is stored.

(a) "Table honey" means honey having the predominant flavor of not more than two floral sources, and preferably one, which can be readily marketed for table use in all parts of the country. Such honey includes those with the predominant flavors of Alfalfa, Bird's-foot Trafoil, Blackberry, Brazil Brush, Catsclaw, Clover, Cotton, Fireweed, Gallberry, Huajillo, Lima Bean, Mesquite, Orange, Raspberry, Sage, Saw Palmetto, Sourwood, Star Thistle, Sweetclover, Tupelo, Vetch, Western Wild Buckwheat, Wild Alfalfa, and similar predominantly mild-flavored honeys, or predominantly mild-flavored blends of honey, as determined by the Director, Sugar Division, CSS.

(b) "Nontable honey" means honey having a predominant flavor of limited national acceptability for table use but considered to be suitable for table use in most areas in which it is produced. Such honeys include those with the predominant flavors of Aster, Avocado, Buckwheat (except Western Wild Buckwheat), Cabbage Palmetto, Dandelion, Eucalyptus, Goldenrod, Heartsease (Smartweed), Horsemint, Mangrove, Manzanita, Mint, Partridge, Pea, Rattan Vine, Safflower, Salt Cedar (Tamarix gallica), Spanish Needle, Spikeweed, Titi, Toyon (Christmas Berry), Tulip-Poplar, Wild Cherry, and similarly flavored honeys, or blends of such honeys, as determined by the Director, Sugar Division, CSS.

§ 434.926 *CSS commodity offices.* The CSS commodity offices and the areas served by them are shown below.

Chicago 5, Illinois, 623 South Wabash Avenue: Connecticut, Delaware, Illinois, Indiana, Iowa, Kentucky, Maine, Maryland, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, Virginia, West Virginia.

Dallas 1, Texas, 500 South Ervay Street: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, Texas.

Kansas City 41, Missouri, 560 Westport Road: Colorado, Kansas, Missouri, Nebraska, Wyoming.

Minneapolis 8, Minnesota, 1006 West Lake Street: Minnesota, Montana, North Dakota, South Dakota, Wisconsin.

Portland 5, Oregon, 1218 S. W. Washington Street: Arizona, California, Idaho, Nevada, Oregon, Utah, Washington.

Issued this 20th day of March 1958.

[SEAL] WALTER C. BERGER,
Executive Vice President,
Commodity Credit Corporation.

[F. R. Doc. 58-2231; Filed, Mar. 25, 1958; 8:51 a. m.]

TITLE 7—AGRICULTURE

Chapter I—Agricultural Marketing Service (Standards, Inspections, Marketing Practices), Department of Agriculture

PART 52—PROCESSED FRUITS AND VEGETABLES, PROCESSED PRODUCTS THEREOF, AND CERTAIN OTHER PROCESSED FOOD PRODUCTS

SUBPART—UNITED STATES STANDARDS FOR GRADES OF CANNED SQUASH (SUMMER TYPE) [1]

MISCELLANEOUS AMENDMENTS

On December 3, 1957, a notice of proposed rule making was published in the FEDERAL REGISTER (22 F. R. 9666) regarding the proposed amendments to the United States Standards for Grades of Canned Squash (Summer Type) (7 CFR §§ 52.3581–52.3592).

After consideration of all relevant matters presented, including the proposals in the aforesaid notice, the following amendments to said standards are hereby promulgated pursuant to the authority contained in the Agricultural Marketing Act of 1946 (60 Stat. 1087 et seq., as amended; 7 U. S. C. 1621 et seq.) which amendments provide for the inclusion of a diced style and redefines the term "poorly cut" to include allowances for diced style.

1. Change § 52.3582 to read:

§ 52.3582 *Styles of canned squash.* (a) "Whole" means canned squash consisting of whole squash with stems removed.

(b) "Sliced crosswise" means canned squash consisting of units cut at right angle to the longitudinal axis into slices of approximately uniform thickness with parallel surfaces.

(c) "Diced" means canned squash which has been cut into fairly uniform diced units.

(d) "Cut" means canned squash cut into units which are not uniform in size or shape or which do not conform to any of the foregoing styles.

2. In § 52.3589, paragraph (a), change subparagraph (5) to read:

(5) "Poorly cut" means units with attached stems or stem material, very ragged cut units, and pieces of less than one-half slice in sliced style squash, pieces measuring one-half inch or less in the longest dimension for cut style, and pieces measuring less than one-quarter inch in the longest dimension for diced style.

Dated: March 21, 1958 to become effective on May 15, 1958.

(Sec. 205, 60 Stat. 1090, as amended; 7 U. S. C. 1624)

[SEAL] ROY W. LENNARTSON,
Deputy Administrator,
Marketing Services.

[F. R. Doc. 58-2214; Filed, Mar. 25, 1958; 8:48 a. m.]

[1] Compliance with the provisions of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

Chapter VII—Commodity Stabilization Service (Farm Marketing Quotas and Acreage Allotments), Department of Agriculture

PART 728—WHEAT

SUBPART—1959–60 MARKETING YEAR

Sec.
728.901 Basis and purpose.
728.902 National marketing quota for wheat for the 1959–60 marketing year.
728.903 1959 national acreage allotment for wheat.
728.904 Apportionment of the 1959 national acreage allotment for wheat among the several States.
728.905 Designation of States outside the commercial wheat-producing area for the 1959–60 marketing year.

AUTHORITY: §§ 728.901 to 728.905 issued under sec. 375, 52 Stat. 66; 7 U. S. C. 1375. Interpret or apply secs. 301, 333, 334, 335, 52 Stat. 38, 53, 67 Stat. 151; 7 U. S. C. 1301, 1333, 1334, 1335.

§ 728.901 *Basis and purpose.* (a) The regulations contained in §§ 728.901 to 728.905 are issued (1) to proclaim the national marketing quota for wheat for the marketing year beginning July 1, 1959, (2) to proclaim the 1959 national acreage allotment for wheat, (3) to apportion among the several States the 1959 national acreage allotment for wheat, and (4) to designate the States outside the commercial wheat-producing area for the 1959–60 marketing year.

(b) Section 335 of the Agricultural Adjustment Act of 1938, as amended, provides that whenever in any calendar year the Secretary of Agriculture determines (1) that the total supply of wheat for the marketing year beginning in such calendar year will exceed the normal supply for such marketing year by more than 20 per centum, or (2) that the total supply of wheat for the marketing year ending in such calendar year is not less than the normal supply for such marketing year and that the average farm price for wheat for three consecutive months of such marketing year did not exceed 66 per centum of parity, the Secretary shall, not later than May 15 of such calendar year, proclaim such fact and a national marketing quota shall be in effect with respect to the marketing of wheat during the marketing year beginning July 1 of the next succeeding calendar year.

(c) Section 333 of the act, as amended, provides that the national acreage allotment for any crop of wheat shall be that acreage which the Secretary determines will, on the basis on the national average yield of wheat, produce an amount thereof adequate, together with the estimated carryover at the beginning of the marketing year for such crop and imports, to make available a supply for such marketing year equal to a normal year's domestic consumption and exports plus 30 per centum thereof, but such national acreage allotment cannot be less than 55 million acres.

(d) Section 334 (a) of the act, as amended, provides that the 1959 national acreage allotment for wheat (less a reserve of not to exceed one per centum thereof for apportionment to counties in addition to the county allotments made under section 334 (b) of the act on the basis of the relative needs of counties for additional allotment because of new areas coming into the production of wheat during the preceding ten years) shall be apportioned among the several States on the basis of the acreage seeded for the production of wheat during the ten calendar years 1948 to 1957 (plus, in applicable years, the acreage diverted from wheat under agricultural adjustment and conservation programs), with adjustments for abnormal weather conditions and for trends in acreage during such period.

(e) Section 335 (e) of the act, as amended, provides that if, for the 1959–60 marketing year, the acreage allotment for wheat for any State is 25,000 acres or less, the Secretary, in order to promote efficient administration of the act and the Agricultural Act of 1949, may designate such State as outside the commercial wheat-producing area for such marketing year. No farm marketing quota or acreage allotment for wheat shall be applicable in such marketing year to any farm in any State so designated; and no acreage allotment in any other State shall be increased by reason of such designation.

(f) The findings and determinations by the Secretary contained in §§ 728.902, 728.903, and 728.904 have been made on the basis of the latest available statistics of the Federal Government as required by section 301 (c) of the Agricultural Adjustment Act of 1938, as amended. In making the findings and determinations contained in § 728.904 the State wheat acreage estimates of the Agricultural Marketing Service of this Department were used, for the years 1948–56 inclusive, adjusted where necessary to reflect the acreages of wheat used for wheat mixtures in States approved for this practice, for green manure, cover crop, hay, and silage, in all States, and the acreage planted to Durum Wheat (Class II) under Public Law 290, 83d Congress, and Public Law 8, 84th Congress, in the States of Minnesota, Montana, North Dakota, and South Dakota, and Public Law 431, 84th Congress, in the States of North Dakota, Minnesota, Montana, South Dakota, and California, as indicated by statistics of the Commodity Stabilization Service of this Department. For States for which wheat acreage estimates are not compiled by the Agricultural Marketing Service and for the 1957 crop year, statistics of the Commodity Stabilization Service were used. It is hereby found and determined that the statistics of the Agricultural Marketing Service, as so adjusted and supplemented by data compiled by the Commodity Stabilization Service, constitute the latest available and most reliable statistics of the Federal Government.

(g) Prior to proclaiming the national marketing quota for wheat for the 1959–60 marketing year and the 1959 national acreage allotment for wheat, the apportionment of the 1959 national acreage allotment for wheat among the several States, and the designation of States

outside the commercial wheat-producing area for the 1959–60 marketing year, public notice of the proposed action was given (22 F. R. 9840) in accordance with section 4 of the Administrative Procedure Act (5 U. S. C. 1003). The views and recommendations received from wheat growers and other interested persons have been duly considered within the limits permitted by the Agricultural Adjustment Act of 1938, as amended.

(h) Since the Agricultural Adjustment Act of 1938, as amended, requires the holding of a referendum of wheat producers who will be subject to the marketing quotas proclaimed on the 1959 crop not later than July 24, 1958, to determine whether such producers favor or oppose such marketing quotas and requires, insofar as practicable, the mailing of notices of farm acreage allotments to farm operators in sufficient time to be received prior to the date of the referendum, and since farm acreage allotments cannot be established until the national acreage allotment for wheat has been apportioned among States and counties, and the States outside the commercial wheat-producing area for the 1959–60 marketing year have been designated, it is hereby found that the proclamations and determinations contained herein shall become effective upon filing with the Director, Division of the Federal Register.

§ 728.902 *National marketing quota for wheat for the 1959–60 marketing year.* The total supply of wheat for the 1958–59 marketing year is determined to be 2,017 million bushels. The normal supply of wheat for such marketing year is determined to be 1,284 million bushels. This total supply exceeds the normal supply by more than 20 per centum. Therefore, a national marketing quota shall be in effect with respect to the marketing of wheat during the 1959–60 marketing year.

§ 728.903 *1959 national acreage allotment for wheat.* A normal year's domestic consumption and exports of wheat plus 30 per centum thereof is determined to be 1,314 million bushels. The estimated carryover of wheat for the marketing year beginning July 1, 1959, is 965 million bushels. Imports of wheat during the 1959-60 marketing year are estimated to be 7 million bushels. Thus, the amount of wheat production needed in 1959 is determined to be 342 million bushels. The national average yield of wheat is determined to be 16.0 bushels per acre. The national acreage allotment of wheat for the 1959 crop is computed to be 21,375,000 acres. Since this amount is less than the minimum provided by law, the national acreage allotment of wheat for the 1959 crop shall be 55 million acres.

§ 728.904 *Apportionment of the 1959 national acreage allotment of wheat among the several States.* The national acreage allotment proclaimed in § 728.903, less a reserve of one-tenth of one per centum thereof for additional allotments to counties, is hereby apportioned among the several States as follows:

State:	Acreage allotment
Alabama	30,138
Arizona [1]	23,708
Arkansas	53,232
California	434,441
Colorado	2,695,718
Connecticut [1]	567
Delaware	35,814
Florida [1]	3,961
Georgia	110,513
Idaho	1,161,686
Illinois	1,422,858
Indiana	1,156,565
Iowa	153,900
Kansas	10,573,510
Kentucky	216,924
Louisiana [1]	14,367
Maine [1]	1,458
Maryland	185,359
Massachusetts [1]	709
Michigan	981,724
Minnesota	718,733
Mississippi	29,440
Missouri	1,330,083
Montana	4,033,335
Nebraska	3,204,664
Nevada [1]	12,378
New Hampshire [1]	67
New Jersey	53,534
New Mexico	476,822
New York	322,145
North Carolina	296,356
North Dakota	7,259,722
Ohio	1,559,396
Oklahoma	4,874,312
Oregon	821,771
Pennsylvania	582,204
Rhode Island [1]	503
South Carolina	139,266
South Dakota	2,718,228
Tennessee	198,181
Texas	4,099,094
Utah	313,544
Vermont [1]	527
Virginia	259,999
Washington	2,002,740
West Virginia	39,874
Wisconsin	51,603
Wyoming	289,527
Total apportioned to States	54,945,000
National reserve	55,000
Total national allotment	55,000,000

[1] Designated noncommercial wheat State.

§ 728.905 *Designation of States outside the commercial wheat-producing area for the 1959–60 marketing year.* The 1959 State acreage allotment of wheat for each of the States of Arizona, Connecticut, Florida, Louisiana, Maine, Massachusetts, Nevada, New Hampshire, Rhode Island, and Vermont, as issued under § 728.904, was twenty-five thousand acres or less. In order to promote efficient administration of the act, each of the States mentioned in this section is hereby designated as outside the commercial wheat-producing area for the 1959–60 marketing year. Accordingly, the commercial wheat-producing area for the 1959–60 marketing year, in which the provisions of §§ 728.910 to 728.924 shall be applicable, shall consist of all States in the continental United States except States herein above-mentioned.

Issued at Washington, D. C., this 21st day of March 1958.

[SEAL] TRUE D. MORSE,
Acting Secretary.

Notice of Referendum for Marketing Quotas 1959–60

The Secretary of Agriculture has duly proclaimed pursuant to the provisions of the Agricultural Adjustment Act of 1938, as amended, a national marketing quota for wheat for the marketing year beginning July 1, 1959. Said Act requires the Secretary to conduct a referendum between the date of said proclamation and July 25, 1958 of farmers who will be subject to such quota in order to determine whether such farmers favor or oppose such quota. Prior to the establishment of this date public notice was given (22 F. R. 9840) that the Secretary had under consideration the establishment of the date for holding the referendum. In the establishment of the date announced herein, due consideration was given to the views, data, and recommendation received pursuant to such notice. It is hereby determined that such referendum shall be held on June 20, 1958.

Done at Washington, D. C., this 21st day of March 1958.

[SEAL] TRUE D. MORSE,
Acting Secretary.

[F. R. Doc. 58-2232; Filed, Mar. 25, 1958; 8:52 a. m.]

TITLE 17—COMMODITY AND SECURITIES EXCHANGES

Chapter I — Commodity Exchange Authority (Including Commodity Exchange Commission), Department of Agriculture

PART 1—GENERAL REGULATIONS UNDER THE COMMODITY EXCHANGE ACT

MISCELLANEOUS AMENDMENTS

By virtue of the authority vested in the Secretary of Agriculture under the Commodity Exchange Act, as amended (7 U. S. C. 1952 ed. §§ 1–17 a), §§ 1.26 and 1.47 of Part 1, Chapter I, Title 17, Code of Federal Regulations (17 CFR 1.26, 1.47) are hereby amended as follows:

1. Paragraph (b) of § 1.26 is amended by inserting after the phrase "clearing organization", wherever it appears in the said paragraph, the phrase "or clearing member".

2. Subparagraph (1) of paragraph (a) of § 1.47 is amended by deleting the phrase "Form 601 (potatoes)", and substituting in lieu thereof "Form 601 (potatoes and onions)", and by deleting the phrase "§§ 6.04 to 6.09 (potatoes)," and substituting in lieu thereof "§§ 6.04 to 6.09 (potatoes and onions)".

These amendments will liberalize requirements pertaining to the investment of customers' funds, and make references to reporting forms consistent with regulations now in effect.

Since the amendments will operate to liberalize existing requirements and clarify existing references, and since

they will not adversely affect the public, it is hereby found that notice and public procedure under section 4 of the Administrative Procedure Act are unnecessary, and that these amendments should be made effective within less than 30 days after publication in the FEDERAL REGISTER.

These amendments shall become effective upon publication in the FEDERAL REGISTER.

(Sec. 8a, as added by sec. 10, 49 Stat. 1500; 7 U. S. C. 12a)

Issued: March 20, 1958.

[SEAL] DON PAARLBERG, *Assistant Secretary.*

[F. R. Doc. 58-2215; Filed, Mar. 25, 1958; 8:48 a. m.]

TITLE 12—BANKS AND BANKING

Chapter III—Federal Deposit Insurance Corporation

PART 327—ASSESSMENTS

CASH ITEMS ELIGIBLE FOR DEDUCTION

The amendment of § 327.1 (d) of the rules and regulations of the Corporation which was published in the FEDERAL REGISTER of January 25, 1958 (23 F. R. 514) under Notice of Proposed Rule Making has been modified to read as set forth below after consideration of all relevant matters presented by interested persons on the proposed amendment and is adopted, effective on the date of its publication in the FEDERAL REGISTER, and shall not be retroactive.

The amendment of the rules and regulations, as adopted, is as follows:

Section 327.1 (d) is amended by redesignating the present subparagraph (3) thereof as subparagraph (4) and by redesignating subdivisions (v) and (vi) of subparagraph (2) as subparagraph (3) and amending subparagraph (3) to read as follows:

(3) Any instrument providing for the payment of money, which is paid or credited to a deposit account and which is received for the purpose of abnormally increasing deposits or reducing assessments with deductions on any assessment base day, is not a cash item as defined in this part, as it is not received in the usual or regular course of business. However, where such an instrument has been credited to a deposit account and included in reported deposit liabilities and is in the process of collection at the close of business on a base day, it may be subtracted in its actual amount from reported deposits in computing the assessment base: *Provided*, That if a bank computes its assessments under the (aa) method such instruments may not be subtracted unless they are received and reflected on the books of the bank as a part of the business of the base day, in accordance with the normal procedure of the bank. This applies to all instruments which are received for such purpose and includes, without being limited to, drafts drawn and delivered or exchanged between banks, and instruments drawn by an officer, director, stockholder, or affiliate of the reporting bank, or by any other person or corporation. If substantially the same amount as the credit given for any such instrument or instruments is withdrawn from a deposit account of the depositor in the reporting bank within a short period thereafter, and the transaction appears abnormal under the circumstances, this will be a factor in determining whether the deposit was received for such purpose and not in the regular course of business.

The purpose of the amendment is to exclude from the meaning of the term "cash item" any instrument providing for the payment of money which is paid or credited to a deposit account and which is received for the purpose of abnormally increasing deposits or reducing assessments with deductions; to permit the subtraction from reported deposits in computing the assessment base of the amounts of such excluded instruments under certain conditions set forth in the amendment; and to permit the consideration of the withdrawal of substantially the same amount as the credit given for any such instrument within a short period thereafter, where the transaction appears abnormal under the circumstances, as a factor in determining whether the deposit was received for such purpose.

The postponement of the effective date for thirty days as prescribed in section 4 (c) of the Administrative Procedure Act and in § 302.5 of the rules and regulations of the Corporation is not followed in connection with this amendment, as the Board of Directors of the Corporation has found in accordance with said section 4 (c) and § 302.6 of the rules and regulations of the Corporation that good cause exists for not deferring the effective date for thirty days, because such action would deny the benefit of the amendment to insured banks for the March 31, 1958 assessment base day.

(Sec. 9, 64 Stat. 881; 12 U.S. C. 1819)

FEDERAL DEPOSIT INSURANCE CORPORATION,
[SEAL] E. F. DOWNEY, *Secretary.*

[F. R. Doc. 58-2221; Filed, Mar. 25, 1958; 8:49 a. m.]

TITLE 41—PUBLIC CONTRACTS

Chapter II—Division of Public Contracts, Department of Labor

PART 202—MINIMUM WAGE DETERMINATIONS

SCIENTIFIC, INDUSTRIAL, AND LABORATORY INSTRUMENTS INDUSTRY

This matter is before me for decision on the exceptions which have been filed to my proposed determination of the prevailing minimum wage for the scientific, industrial, and laboratory instruments industry as published in the FEDERAL REGISTER (22 F. R. 3729).

The Industry Panel, which consists of a number of manufacturers in the industry, has excepted to the proposed determination on several grounds. It objects to the admissibility of the Bureau of Labor Statistics wage survey and states (1) that it was denied opportunity to cross-examine for the purpose of testing the accuracy and representative character of the tabular data submitted; (2) that the process of "weighting" used by the Bureau of Labor Statistics to include 44 non-reporting establishments in the survey resulted in ascribing to those establishments wages that are inaccurate; and (3) that I have relied upon survey data showing minimum wages actually paid and have disregarded data showing lowest established rates.

The basis upon which the Department of Labor rejected the requested disclosure of the confidential replies of firms reporting wage data has been fully discussed in the proposed determination and need not be repeated here. The Industry Panel reasserts that the confidential questionnaire replies and the identity of the companies sent and replying to questionnaires were requested in order to determine whether the wage data "Universe" was comprehensive, whether the exclusion of certain firms because of product classification was in accord with the industry definition, whether the non-reporting firms were sufficiently large or numerous as to affect the results of the survey, and whether the interpolated data included in the tables on the non-reporting firms was accurate. This request was modified to require surrender of the confidential replies themselves with individual identities deleted.

Neither the names of the companies sent and replying to questionnaires, nor the confidential replies of those responding, were indispensable or required to reasonably pursue these lines of inquiry. Disclosure of establishments contributing to the wage survey, even if limited to disclosure of their names or of their replies with identities deleted, would permit identification of the data confidentially submitted by a great many of them by reference to their known characteristics as to location, size, production and the like. Cross-examination of the Bureau of Labor Statistics witness on the wage survey data which contained the ultimate facts on each subject of inquiry afforded the Panel adequate and reasonable opportunity required by the circumstances for the full and true disclosure of the pertinent economic and statistical facts.

As discussed in the proposed decision, the Panel is not in a position to assert it did not know, acquiesce, and share in a prehearing conference understanding and arrangement of representatives of employers and employees in the industry and of the Department[1] as to the wage data necessary to determination of prevailing minimum wages in this industry

[1] The Rules of Practice ("Minimum Wage Determinations under the Walsh-Healey Public Contracts Act," 41 CFR Chapter II, Part 203, Subpart C, § 203.16) provide that the Secretary in his discretion may invite representatives of employers and employees in an industry to meet as an informal panel group to discuss with representatives of the Department the various questions relating to issuance of a wage determination for the industry.

or that it be procured and collated by the Bureau of Labor Statistics, including understanding not only as to the form and content of the questionnaire, but the necessity of pledging confidentiality of replies to elicit the data. The Industry Panel at such prehearing conference suggested the possibility of its undertaking some wage survey of the industry, but after discussion this proposal was not pursued and instead the arrangements mentioned above resulted without apparent dissent.

After the Bureau of Labor Statistics completed procurement of the basic data, additional prehearing conferences were held, attended by the Industry Panel, to discuss rendering of such data into an appropriate wage survey exhibit for use as evidence at the hearing. Agreement resulted that the economic and statistical data be reflected in certain tabulations stating detailed facts as to the industry's wages, employment, and covered establishments by geographic, job classification, and other breakdowns and groupings. During the course of these prehearing consultations the Industry Panel requested the Department to prepare certain special and extra tabulations of the confidential data to develop evidence for its own use at the hearing. This request was met, and the tabulations were added to the wage data exhibit offered in evidence by the Government, to the introduction of which the Panel objected. The Panel at the time of this request neither voiced objection to the confidentiality of the basic data nor demanded its disclosure to prepare its own tabulations.

Subsequently, the notice of hearing specifically offered to furnish all interested persons copies of the Bureau of Labor Statistics wage survey—the product of the Department's pre-hearing investigation and research. In addition, the Bureau's survey was served on the parties to the pre-hearing conferences, including the Panel.

The Industry Panel was thus afforded opportunity to participate in the formulation of the wage exhibit it objects to, and to know and meet the data contained in the exhibit well in advance of hearing, to request additional or special survey-data tabulations responsive to its contentions and views, and to prepare such rebuttal as it deemed appropriate. In addition, cross-examination was thrown open and availed of by the Panel as to the conduct, methods and evaluation of the Bureau's wage survey investigation, and its compilation and tabulation of the basic wage data received from the industry.

Under all the circumstances of this inquiry, the Panel's request at the hearing for disclosure of the confidential replies of the industry establishments furnishing wage, employment and other business data, with or without source identification, was unreasonable, not required for determination of the full and true facts, and such disclosures would have added nothing substantial to the record. In determining whether the information requested by the Panel was arbitrarily curtailed by the Examiner, I may not ignore the circumstance that in objecting to the admissibility of the Bureau's wage survey because of denial of disclosure of the data procured confidentially from others, it was unresponsive to tendering or agreeing to disclosure of the data submitted confidentially by its own members. The hearing examiner's denial of the Panel's disclosure demands and his further denial of its objection to the admissibility of the Bureau's wage survey because of the first ruling, were not arbitrary or prejudicial. Both rulings were proper under all the circumstances, and I subscribe to them.

The provision in section 7 (c) of the Administrative Procedure Act for "such cross-examination as may be required for a full and true disclosure of the facts" does not confer a right of so-called "unlimited" cross-examination such as the Industry Panel lays claim to. Whether cross-examination is sought to be pressed to unreasonable lengths by a party or whether it is "required", or to what extent required for the "full and true disclosure of the facts" stated in the provision, depends upon what is reasonably required for a fair hearing under all the circumstances.

Where, as here, the subject-matter and evidence in rule making proceedings are broadly economic or statistical in character and the parties numerous, the direct evidence, as appears in this matter, may be of such a nature that cross-examination adds nothing substantial to the record, and is not "required" for full and true disclosure of the facts.[2] Although the direct evidence was broadly economic and statistical in character, the parties were afforded and availed themselves of cross-examination on it. Section 7 (c) of the Administrative Procedure Act was not intended to change the "substantial evidence rule" as developed by the courts. As stated in the Attorney General's manual, the requirement of "reliable, probative, and substantial evidence" simply "restates the present law" (Manual, p. 76, Davis Administrative Law, 454–455, 458–460). This would include "the kind of evidence on which responsible persons are accustomed to rely in serious affairs." National Labor Relations Board v. Remington Rand, 94 F. 2d 862, 873 (C. A. 2), certiorari denied, 304 U. S. 576; Ellers v. Railroad Retirement Board, 132 F. 2d 636, 639 (C. A. 2).

The minimum wage, employment, job classification, and product information excepted to in this proceeding was obtained by the Bureau of Labor Statistics by well-established methods of securing economic-statistical data on competitive business conditions under a pledge of official confidence, which is usually, and as is uncontroverted here, the only practicable way in which such information can be elicited. It is the usual method followed by the Bureau of Labor Statistics of the Department of Labor. Information similarly procured in confidence by the Bureau as to wages, hours, cost of living and other items has been extensively used in wage negotiations and wage determination and other proceedings, both public and private. It is clearly the kind of evidence which the courts have said is reliable, probative, and substantial evidence on which responsible persons are accustomed to rely in serious affairs. Reliance on information so secured is particularly appropriate in the type of rule-making or legislative hearing here involved. Comparable statistical studies have been validated by the courts as constituting substantial evidence in support of the Administrator's wage-order findings under the Fair Labor Standards Act.

The right of cross-examination granted by section 7 (c) is not intended to disturb existing administrative practice of submitting technical written reports and analyses of material gathered in field surveys and other devices appropriately adapted to the procurement of information on the particular issues involved in specialized proceedings such as these. The only condition attached to such evidence by this section is opportunity for such cross-examination "as may be required," which condition was met in this matter.

Where, as here, an administrative officer is performing a rule making or legislative function and his expert and informed judgment must enter into the decision, the danger that any parties interested will be prejudiced by limiting detailed cross-examination of such statistical data is at a minimum and is outweighed by the practical consideration that such officer not be deprived of the undoubted benefits of such data. This is the very type of data on which an administrative officer in proceedings of such a legislative character is expected to exercise a sound discretion in judging its probative value and the relative weight to be attached to it.

The Supreme Court itself has analogized the administrative function in wage order proceedings under the Fair Labor Standards Act to the President's function in raising or lowering tariffs. The Court stated that the wage order function under the Fair Labor Standards Act "is no less an exercise of the legislative function than was the Tariff Act of 1922 authorizing the President to raise or lower tariff duties". Opp Cotton Mills v. Administrator, 312 U. S. at 146, citing Norwegian Nitrogen Co. v. United States, 288 U. S. 294. Wage determination proceedings under the Walsh-Healey Act are no less an exercise of the legislative function than wage order proceedings under the Fair Labor Standards Act and proceedings under the Tariff Act.

The Norwegian Nitrogen case presented a question quite similar to the one here involved, namely, the right of a private party in a quasi legislative hearing to disclosure of the sources of information submitted by a governmental agency regarding the cost of production and details of the business of particular manufacturers who had made such information available to the agency inspectors in confidence. The Supreme Court held that the right to a hearing granted by the Tariff Act did not entitle an interested private party, concededly adversely affected by the proposed tariff

[2] H. R. Rep. p. 37; Sen. Doc. p. 271, "Attorney General's Manual on the Administrative Procedure Act," p. 78.

rate change, to disclosure of information as to wages paid, total workers employed, and other details of the business of particular manufacturers procured by public officials under a pledge of secrecy, the publication of which would reveal the identity of the manufacturers supplying the information and exposing it to competitors.

The Norwegian Nitrogen ruling was given application in a recent decision of a similar disclosure question by the Court of Appeals for the District of Columbia in Red Star Manufacturing Co. v. Grimes, 221 F. 2d 524, 531. This case involved exception to the admission in evidence of an exhibit containing confidentially procured production cost data of certain competing manufacturers, otherwise unidentified, in a wage order proceeding under the Fair Labor Standards Act. The court ruled that the petitioner, a competitor, was not aggrieved by being denied inspection of the data, or of the identity of the firms which had furnished it, since "Limitation upon cross-examination with regard to the data at issue was not * * * 'of such a prejudicial character as to make the hearing unfair'." In arriving at this conclusion the court applied the Norwegian Nitrogen case ruling to wage order proceedings of the Department stating that in such proceedings "interested parties have no unrestricted right of access to even very relevant information in the * * * files. To invalidate such a (wage order) proceeding the (Supreme) Court said, the non-disclosure 'must be shown to be arbitrary.' Here we find no arbitrary action: as in the Norwegian Nitrogen case the 'information was obtained on a confidential basis' * * *."

A fortiori, no more exacting criterion than that applicable to resolution of the non-disclosure issue in wage order proceedings under the generally applicable Fair Labor Standards Act is appropriate for resolution of the similar issue arising in these proceedings under the Walsh-Healey Act which only seek to determine the minimum wage required for inclusion as one of the terms in the Government's offers to buy the goods manufactured or furnished by this industry.

In all of the circumstances and for the reasons stated here and in the proposed decision, the non-disclosure in conformance with the long standing practice of the Department of the confidentially submitted data from which the Bureau of Labor Statistics wage survey was drawn, fully accorded to the requirements of the Administrative Procedure Act, was not capricious or arbitrary, nor deprived the members of the Industry Panel of a fair hearing. Their exceptions to the admission in evidence of the Bureau's wage survey because of the disabilities alleged but not shown to flow from failure to disclose the confidential data, are not well taken and the Panel's exceptions are overruled.

The Industry Panel has also excepted to the inclusion of 44 non-reporting plants in the Bureau of Labor Statistics wage survey by "ascribing to them the wages found in those of the plants actually studied which had similar characteristics of size, location, and the like." It is asserted that the wages thus ascribed are speculative and that a more accurate result would have been achieved if the non-reporting plants had been assigned "the average weight for the particular size category into which they fell." A similar objection was considered and overruled in the proposed determination in these proceedings.

The Bureau of Labor Statistics applied several factors known to materially affect wage structures in order to interpolate the actual wages of each non-reporting establishment to the closest possible accuracy. This was done in accordance with statistically acceped practice. The Panel's contention that greater accuracy could have been obtained by limiting consideration to the single factor of plant size relies on weighting factors not as sensitive, comprehensive, statistically accredited or accurate as those adopted by the Bureau of Labor Statistics and this exception is overruled.

The Industry Panel has further excepted to the finding that plants with a total of less than eight employees "account for only an insignificant portion of the employment and production in the industry." Contrary to the Panel's assertion, this finding is supported by uncontradicted testimony of record which indicates that the number of workers in this group "is very small" (T. p. 375). The 1954 Census of Manufactures confirms that plants employing a total of less than eight workers employ not more than two percent of the workers in this industry. This exception is also overruled.

The Industry Panel has objected to my reliance upon data showing minimum wages actually paid in lieu of exclusive reliance on data showing lowest established or policy rates. The minimum wages to be determined under section 1 (b) of the act are "* * * the prevailing minimum wages for persons employed" in the industry. Clearly evidence consisting of data on lowest rates established for future employment, without more, does not afford a proper basis for determining prevailing minimum wages under this statutory standard.

However, in view of the evidence of record that nearly 90 percent of the plants in the industry either actually used their lowest established rates at the time of the wage survey or had used them during the preceding year, the proposed determination gave them consideration in arriving at the proposed prevailing minimum wage in this industry. This consideration supported and confirmed the proposed determination of $1.20 per hour on the basis of minimum wages actually paid in the industry. Thus, 44.2 percent of the plants reporting lowest established rates, employing 64 percent of the workers in such plants, reported such minimum established rates to be not less than $1.20. The Panel's exception in this regard is without merit.

The Industry Panel repeats its earlier objections to the issuance of a minimum wage determination in excess of $1.00 per hour which I considered and overruled in the proposed determination For the reasons there assigned, these exceptions are similarly overruled.

The Panel has advanced as further justification for a determination of not more than a $1.00 rate that a higher rate would cause deterioration in the position of certain domestic firms manufacturing certain products of the industry by giving foreign producers of similar items a competitive advantage in the domestic market. Apart from the inapplicability of the Walsh-Healey Act and of wage determinations thereunder, to contracts to be performed wholly outside the United States and certain of its territories, the facts of record show that only microscopes and analytic balances are subject to foreign competition as a result of lower foreign wage rates. The testimony at the hearing further shows that the total domestic market for these items is in the vicinity of 10 million dollars. Government purchases of microscopes in fiscal 1955 on unclassified contracts subject to the Walsh-Healey Act, all reportedly produced by United States manufacturers, amounted to $103,000. No purchases of analytic balances were reported. Some previous years show Government purchases of these items from foreign producers in varying but not uniformly substantial amounts. The total value in fiscal 1955 of unclassified purchases of the products of this industry by the Federal Government in excess of $10,000 was nearly 120 million dollars. In the light of these facts, no appreciable disability in the position of domestic firms as against that of foreign producers for Government contracts is apparent.

There is no evidence of record indicating the minimum wages paid by the particular manufacturers in the industry producing microscopes and analytic balances. It does not appear therefore that the proposed $1.20 minimum wage would have measurable effect upon the labor costs or the competitive position as to foreign producers of the individual establishments in this group. In any event, consideration of actual or potential competition from foreign producers for Government contracts as to the products of this industry is not committed to my discretion and is neither pertinent nor appropriate to a determination under the Walsh-Healey Act of the prevailing minimum wages in this particular industry.

The Panel also excepts to the proposal to authorize a rate of $1.15 an hour for beginners in this industry. This rate was not "determined" as the prevailing minimum wage for beginners under section 1 (b) of the Walsh-Healey Act but is a tolerance which, for reasons fully discussed in the notice of proposed determination, has been provided under the discretionary authority contained in section 6 of the act.

Exceptions filed by the Radio-Electronic-Television Manufacturers Association, AFL–CIO, General Electric Company, Nelson Electric Manufacturing Company, and Jet Instruments, Inc., include objections to the duration of the training period provided for beginners, the inclusion of electrical indicating, and service test equipment in the definition,

the proposal of rates of $1.20 an hour for experienced workers and $1.15 an hour for beginners, the conclusion that the definition encompasses a "particular" industry, and the finding that geographical differentials should not be provided in the determination. Each of these objections has been considered and is overruled for reasons fully stated in the proposed determination.

The contention has also been made that the "local labor market area" should determine the "locality" for which separate prevailing minimum wages should be found under section 1 (b) of the Walsh-Healey Public Contracts Act. The evidence does not support a conclusion that competition for Government contracts is on the basis of local labor market areas. Contrariwise, the evidence abundantly supports the conclusion that the area of such competition is industrywide and in these circumstances only an industrywide minimum wage will serve to carry out the objectives of the Walsh-Healey Act. The proposal must be rejected.

The Industry Panel, General Electric Company, and others have excepted to several inferences which they consider may be drawn from various recitals in the notice of proposed determination. These exceptions have been fully considered and the pertinent portions of the notice have been found factually accurate and complete. Each of these exceptions is therefore overruled.

The Fisher Scientific Company and the Industry Panel assert that the proposed prevailing minimum rate of $1.20 an hour would be inflationary and the Fisher Company recommends the determination of the $1.00 rate provided by section 6 of the Fair Labor Standards Act of 1938, as amended (52 Stat. 1062, as amended; 29 U. S. C. 206). As fully discussed in the proposed determination, a prevailing minimum wage rate of $1.20 an hour is amply supported by the evidence of record. The recognition of this rate as an economic fact, and the issuance of a determination expressing that recognition as required by the act, is not inflationary and merely states the minimum wage standard in effect in this industry. For these reasons the exceptions to a prevailing minimum wage in excess of $1.00 are rejected.

I have fully considered all exceptions and supporting arguments and each is overruled for reasons either stated herein or discussed in the Notice of Proposed Determination.

On August 3, 1957, the general regulations (41 CFR Part 201) were amended to authorize the employment of apprentices at lower than the prevailing minimum wages determined under section 1 (b) of the Public Contracts Act. It is unnecessary, therefore, to provide the specific authorization for the employment of apprentices which was contained in the notice of proposed determination for this industry.

Accordingly, upon the findings and conclusions and the reasons therefor stated herein and in the Notice of Proposed Determination of Prevailing Minimum Wages filed in these proceedings, and pursuant to authority under the Walsh-Healey Public Contracts Act (49 Stat. 2036; 41 U. S. C. 35 et seq.), and in accordance with the Administrative Procedure Act (60 Stat. 237, 5 U. S. C. 237), § 202.49 of Title 41, Code of Federal Regulations, Part 202 is hereby amended to read as follows:

§ 202.49 *Scientific, Industrial, and Laboratory Instruments Industry*—(a) *Definition.* The scientific, industrial, and laboratory instruments industry is defined as that industry which manufactures or furnishes instruments, and their accessories and auxiliary devices used for measuring, indicating, recording, or initiating control of, physical or chemical qualities or quantities, or other characteristics or properties such as: acceleration, acidity, alkalinity, altitude, angle, attitude, color, combustion, conductivity, density, direction, distance, electricity, flow, force, humidity, intensity, light, liquid level, mass, position, pressure, radioactivity, sight, sound, speed, temperature, vibration, viscosity, and wave length.

(1) The definition includes, but without limitation, instruments, and accessories and auxiliary devices for such instruments, used for measuring, indicating, recording, or initiating control in: drafting, engineering, industrial processing, meteorology, navigation and surveying, and instruments, and accessories and auxiliary devices for such instruments, used in teaching, demonstration, research or testing for the measuring, indicating, recording, or initiation of control of, such qualities, quantities, or other characteristics or properties as: bacteriological, biological, chemical, clinical, geological, physical, physiological, psychological, and radiological.

(2) The definition does not include:

(i) Electric, gas, and water meters used to measure consumption by individual domestic or commercial users.

(ii) Gasoline meters used in service stations, garages, and similar locations.

(iii) Ammeters, pressure gauges, fuel gauges, temperature gauges, speedometers and tachometers, used on automotive equipment.

(iv) Clocks, watches, and clockwork mechanisms and controls.

(v) Machinists' blocks and gauges.

(vi) Control and indicating devices used in domestic, store, office, and similar installations of air conditioning, refrigeration, comfort heating, cooking, and water heating equipment.

(vii) Speed and emergency governors used with steam, gas, and hydraulic turbines, and diesel engines.

(viii) Ophthalmic lenses, trial sets, and other ophthalmic products.

(ix) Transmitting and receiving equipment for telephony, carrier equipment, radio, television, sonar, loran, shoran, radar, teletype, and related systems.

(x) Photographic lenses.

(xi) Optical glass.

(xii) Laboratory glassware and other technical, scientific and industrial pressed and blown glassware.

(xiii) Industrial, commercial, and household scales and other mechanical weighing machines (except balances and precision weighing devices for laboratory, research, and scientific uses).

(xiv) Surgical, medical, and dental instruments.

(xv) Resistors, capacitors, inductors, and other basic electrical components, except those designed, engineered, and used as standards or precision devices in laboratory, research, and scientific work, and in quality control.

(b) *Minimum wages.* The minimum wage for persons employed in the manufacture or furnishing of products of the scientific, industrial, and laboratory instruments industry under contracts subject to the Walsh-Healey Public Contracts Act shall be not less than $1.20 per hour arrived at either on a time or incentive basis.

(c) *Subminimum wages authorized.* Beginners may be employed at wages not less than $1.15 an hour, arrived at either on a time or incentive basis, for a period not to exceed three months. A beginner for the purpose of this determination is a worker with three months or less experience in the plant, employed in a low-skilled job requiring an initial training period.

(d) *Effect on other obligations.* Nothing in this section shall affect any obligations for the payment of minimum wages that an employer may have under any law or agreement more favorable to employees than the requirements of this section.

(e) *Effective date.* This section, as amended, shall be effective and the minimum wage hereby provided shall apply to all contracts subject to the Public Contracts Act, bids for which are solicited or negotiations otherwise commenced on or after April 25, 1958.

(Sec. 4, 49 Stat. 2038; 41 U. S. C. 38. Interprets or applies sec. 1, 49 Stat. 2036, as amended; 41 U. S. C. 35)

Signed at Washington, D. C., this 20th day of March 1958.

JAMES P. MITCHELL,
Secretary of Labor.

[F. R. Doc. 58-2219; Filed, Mar. 25, 1958; 8:48 a. m.]

TITLE 46—SHIPPING

Chapter II—Federal Maritime Board, Maritime Administration, Department of Commerce

Subchapter A—Policy, Practice and Procedure

[General Order 41, 2d Rev., Amdt. 4]

PART 201—RULES OF PRACTICE AND PROCEDURE BEFORE THE FEDERAL MARITIME BOARD AND THE MARITIME ADMINISTRATION

MISCELLANEOUS AMENDMENTS

Comments and suggestions having been considered in connection with the notice of proposed rule making appearing in the FEDERAL REGISTER issue of June 27 1956 (21 F. R. 4683), notice is hereby given of the adoption of the proposed changes as set forth therein, amended as follows:

1. Subpart L is hereby changed to read "Depositions and Discovery" and a new

§ 201.211 is added at the end thereof reading as follows:

§ 201.211 *Discovery and production of documents.* Upon motion of any party showing good cause therefor and upon notice to all other parties, the Board or presiding officer may direct any party to produce and permit the inspection and copying or photographing, by or on behalf of the moving party, of any designated documents, papers, books, accounts, letters, photographs, objects, or tangible things, not privileged, which constitute or contain evidence relating to any matter, not privileged, which is relevant to the subject matter involved in the pending proceeding, and which are in his possession, custody or control. The order shall specify the time, place, and manner of making the inspection and taking the copies and photographs and may prescribe such terms and conditions as are just.

2. Section 201.221 is hereby amended to read as follows:

§ 201.221 *Briefs: request for findings.* The presiding officer shall fix the time for filing briefs and any enlargement thereof. The period of time allowed, subject to the provisions of § 201.102, shall be the same for all parties unless the presiding officer, for good cause shown, directs otherwise. The parties may not file more than one brief except in unusual cases. Briefs shall be served upon all parties pursuant to Subpart H of this part. In investigations instituted on the Board's own motions, the presiding officer may require Public Counsel to file a request for findings of fact and conclusions within a reasonable time prior to the filing of briefs. Service of the request shall be in accordance with the provisions of Subpart H of this part. In addition to the ordinary summary of evidence, with reference to exhibit numbers and pages of the transcript, and statement of law with appropriate citations of the authorities relied upon, the brief shall contain proposed findings of fact and conclusions in serially numbered paragraphs. Briefs, including briefs in support of exceptions and replies thereto (§§ 201.228 and 201.299) shall be limited to a maximum of fifty (50) printed pages, exclusive of the table of contents, table of citations of authorities, appendix, and certificate of service. For good cause shown in writing, filed with the presiding officer prior to the close of hearing, the Board or the presiding officer may prescribe a maximum length of briefs in excess of fifty (50) pages.

Effective date: For good cause shown, it is found, in accordance with the provisions of section 4, Administrative Procedure Act, that further delay of the effective date would be impracticable and unnecessary; therefore, the foregoing shall be effective upon publication in the FEDERAL REGISTER.

(Sec. 204, 49 Stat. 1987, as amended; 46 U. S. C. 1114)

Dated: March 20, 1958.

By order of the Federal Maritime Board/Maritime Administrator.

JAMES L. PIMPER,
Secretary.

[F. R. Doc. 58-2230; Filed, Mar. 25, 1958; 8:51 a. m.]

PROPOSED RULE MAKING

DEPARTMENT OF LABOR

Division of Public Contracts

[41 CFR Part 202]

FABRICATED STRUCTURAL STEEL INDUSTRY

NOTICE OF HEARING TO DETERMINE PREVAILING MINIMUM WAGES

Notice is hereby given that a public hearing to determine the prevailing minimum wage(s) in the Fabricated Structural Steel Industry will be held before a duly assigned Hearing Examiner on April 29, 1958, beginning at 10 a. m., in Room 1214, United States Department of Labor, 14th Street and Constitution Avenue NW., Washington, D. C. This matter is before the Department of Labor pursuant to the provisions of section 1 (b) of the Act of June 30, 1936 (49 Stat. 2036, as amended; 41 U. S. Code 35 et seq.), known as the Walsh-Healey Public Contracts Act.

The fabricated structural steel industry, for the purposes of this hearing, is defined as that industry which manufactures the following products: anchors for structural steel; bases of steel or iron; beams, purlins, girts; bearing plates for structural steel; bearing shoes for bridges; bracing; brackets; bridge pins; bridge railings of steel; columns of steel, iron, or pipe, or cement-filled pipe; counterweight boxes for bridges; crane rails and stops; door frames constituting part of the steel framing; expansion joints connected to the steel frame; floor plates (checkered or smooth) connected to the steel frame; girders of steel; grillage beams and girders of steel; hangers of structural steel, if attached to the structural steel framing and shown on the framing plans; lintels shown on the framing plans or otherwise enumerated or scheduled; marquees (structural steel frame only); monorail beams of standard structural shapes; separators, angles, tees, clips and other detail fittings essential to the structural steel frames; suspended ceiling supports of structural shapes 3" or greater in depth; shop rivets, permanent shop bolts, bolts required to assemble parts for shipment and shop welds; struts; tie, hanger and sag rods forming part of the structural steel frame; and trusses.

The following products are specifically excluded: grille work, fences and gates, stairs, staircases, fire escapes, railings, open steel flooring, prefabricated and portable metal buildings and parts (if primarily of light-gage metal), metal plaster bases, bar joists, and concrete reinforcing bars.

All interested parties may appear at the time and place specified herein and submit data, views, and arguments (1) as to the propriety of the proposed definition of the industry; (2) as to what are the prevailing minimum wages in the industry; (3) as to whether a single determination for all the area in which the industry operates or separate determinations for smaller geographic areas (including the appropriate limits for such areas) should be determined for this industry; and (4) as to whether there should be included in any determination for this industry provision for the employment of probationary workers at subminimum rates and on what terms or limitations, if any, such employment should be permitted.

A survey of the industry has been made and employment and wage data as of March 1957 have been tabulated in the Department of Labor. These tabulations will be submitted for consideration at the hearing and copies are available to interested persons upon request.

Persons intending to appear are requested to notify the Administrator of the Wage and Hour and Public Contracts Divisions of their intention in advance of the hearing.

Written statements of position or argument may be filed in quadruplicate with the Chief Hearing Examiner, United States Department of Labor, Washington, D. C., at any time prior to the date of the hearing by interested persons who cannot appear personally. Any such statement shall include the reason or reasons for non-appearance. Such statements as contain factual matter should be sworn to and will be received in evidence by the Hearing Examiner presiding at the hearing. If objection is made to the receipt of such evidence, the statement will nevertheless be received subject to the objection which will be considered to affect the weight rather than the admissibility of the statement.

The following information is particularly invited with respect to the subject matter of the testimony of each witness, or the sworn statements of persons who cannot appear personally: (1) The identity of any product not now included in the definition of the industry which should be included and of any product now included which should not be included; (2) the number and location of establishments in the industry, the number of workers employed in each such establishment, the minimum rates paid and the number of workers at each such establishment receiving such rates and the occupations in which they are employed; (3) the minimum wages paid to probationary workers in each establishment, the scale of wages paid during the probationary period, the length of

such period, the number of workers receiving such wages, and the occupations in which they are employed; and (4) the nature and the geographic pattern of competition within this industry. To the extent possible, data should be submitted in such manner as to permit evaluation thereof on a plant by plant basis.

This hearing shall be conducted pursuant to the Rules of Practice set forth in Part 203, Subpart C, of Title 41 of the Code of Federal Regulations.

Signed at Washington, D. C., this 20th day of March 1958.

JAMES P. MITCHELL,
Secretary of Labor.

[F. R. Doc. 58-2220; Filed, Mar. 25, 1958; 8:49 a. m.]

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Food and Drug Administration

[21 CFR Part 20]

[Docket Nos. FDC 34, 34 (a)]

FROZEN DESSERTS; DEFINITIONS AND STANDARDS OF IDENTITY

NOTICE OF PROPOSED RULE MAKING

In the matter of definitions and standards of identity for ice cream, frozen custard, sherbet, water ices, and related foods:

Pursuant to notices published in the FEDERAL REGISTER of November 1, 1941, and November 19, 1941 (6 F. R. 5574, 5888), a public hearing was held beginning January 5, 1942, and ending April 21, 1942, on proposals to adopt definitions and standards of identity for ice cream, frozen custard, sherbet, water ices, and related foods. The promulgation of proposed definitions and standards of identity for these foods was deferred due to conditions brought on by World War II. Because of the time that had elapsed since the evidence was received at the hearing ending April 21, 1942, it was determined that the record in this matter should be reopened to afford interested persons an opportunity to present further evidence. Therefore, in the FEDERAL REGISTER of August 8, 1950 (15 F. R. 5112), a notice was published setting a date for a continuation of the hearing. After one postponement (15 F. R. 7338) the hearing was recommenced on January 8, 1951, and the taking of evidence was concluded on December 31, 1952.

Based upon the evidence submitted at the hearings held in 1942, 1951, and 1952, and pursuant to the authority vested in the Secretary of Health, Education, and Welfare by the provisions of the Federal Food, Drug, and Cosmetic Act (secs. 401, 701, 52 Stat. 1046, 1055; 21 U. S. C. 341, 371) and delegated to the Commissioner of Food and Drugs by the Secretary (20 F. R. 1996) and after a consideration of written arguments and proposed findings, some of which were adopted in whole or in part and some of which were rejected, as will appear from a consideration of the following proposed findings, it is proposed to issue the following order:

FINDINGS OF FACT[1]

1. Ice cream is the common and usual name of the frozen food made from cream or a mixture of milk and cream, or from a combination of dairy products, with or without water, having substantially an equivalent composition. The food is sweetened with sugar or other suitable sweetening agent and may contain natural or imitation flavoring or other food ingredients, such as cocoa, fruit, and nuts, to characterize it as a kind of ice cream. It may contain small amounts of added salt as seasoning. Substances described in later findings and often referred to as stabilizers are usually added to prevent formation of large ice crystals. Artificial coloring and certain other optional ingredients may be added. (R. 42–46, 82, 231–232, 397, 430, 528–529, 688, 800, 4834)

2. The usual household practice of preparing ice cream is to prepare it from sweet cream or a mixture of sweet milk and sweet cream. However, a large proportion of commercially produced ice cream is prepared from various dairy products, with or without water, so combined that in composition the mixture closely resembles cream or a mixture of milk and cream (see finding 3). When prepared for freezing, the sweetened dairy ingredient (with other ingredients used and with or without the addition of flavoring or other characterizing ingredient) is known in the trade as ice cream mix. Certain characterizing ingredients such as fruit may be, and frequently are, added after the mix is frozen. (R. 230–233, 402, 671–672, 699, 1049, 2252, 5236)

3. Milk and cream are composed of certain proportions of water, milk fat, and other constituents commonly referred to as nonfat milk solids or serum solids. The nonfat milk solids include proteins, milk sugar, various minerals, and certain water-soluble vitamins. The dairy products other than milk and cream (referred to in finding 2) that are used and are suitable for use in making commercial ice cream contain milk fat or nonfat milk solids or both in varying proportions and may also contain added sweetening agents. Such dairy products are dried cream, concentrated milk, evaporated milk, sweetened condensed milk, superheated condensed whole milk, dried milk, skim milk, concentrated (evaporated or condensed) skim milk, superheated condensed skim milk, sweetened condensed skim milk (including sweetened condensed part skim milk), nonfat dry milk, liquid or condensed or dried sweet cream buttermilk (see findings 6), butter and butter oil. (Cream includes plastic cream and a so-called concentrated milk fat; butter oil includes milk fat prepared from milk, cream, or butter.) Combinations of two or more of these products may be used. Water is added if necessary. To produce the properties associated by consumers with ice cream, the proportions of the various products used in such combinations are so adjusted that the finished ice cream mix contains substantial amounts of both milk fat and nonfat milk solids. In recent years the proportion of nonfat milk solids to milk fat in ice cream has been generally increased, as compared with the proportion naturally present in cream or mixtures of cream and milk previously used as the dairy ingredient. The most important and expensive single constituent of ice cream, however, is milk fat, and ice cream cannot be made without a substantial proportion of this constituent. There is no evidence that any milk or milk product other than cow's milk or a cow's milk product is used in making ice cream. (R. 44, 46, 50, 402, 440, 532–533, 564, 696–697, 721–728, 732, 786, 1101, 4422, 5204, 5482–5491, 5909–5910, 5967, 5969, 6189, 6198, 6241, 6386, 6502–6504, 6913–6933, 6994–7013)

4. The fat of milk is sometimes separated from milk or from butter by processes that free it almost entirely from moisture and nonfat milk solids. Such fat from butter is usually referred to as butter oil. When prepared directly from milk or cream it may also be called dry butter or dry butterfat. Butter oil is the name commonly used to designate milk fat prepared from butter by processes which eliminate moisture and nonfat milk solids almost completely. Such a product can be prepared directly from milk or cream. (R. 5908, 5968, 6241, 6386, 6422, 6503, 6917, 6933, 7010–7013, 7445–7446, 9754)

5. A proposal was made to recognize as an optional ingredient of ice cream a product prepared from skim milk by the following process: The acidity of the skim milk is adjusted to about 0.05 percent. Then water is removed until the solids content reaches about 20 percent. To this concentrated skim milk a lactic acid starter is added, and the mixture is held at 70°–72° F. until the acidity reaches 1.5 percent. It is then spray-dried. No satisfactory explanation was given of how a product of such high acidity could be used in ice cream making without causing the mix to curdle during pasteurization, unless the cultured skim milk powder were to be used in an ice cream mix that was neutralized. In experimental batches of ice cream the use of the cultured product was said to offer a means of producing a distinctive culture flavor in ice cream. It cannot be concluded that these manipulations are necessary or desirable or that the use of such a product would promote honesty and fair dealing in the interest of consumers. The abuses that might arise from neutralization of ice cream mixes are described in finding 36. (R. 7158–7180, 7210–7243)

6. Sweet cream buttermilk, in liquid or condensed or dried form, has substantially the same composition as the corresponding form of skim milk. Careful selection and handling of the product sold as sweet cream buttermilk are necessary to avoid some degree of souring. To be suitable for use in ice cream, the product is made from cream churned when it is fresh and sweet. No starter or neutralizer is used, and the resulting buttermilk is promptly used or is

[1] The citations following each finding of fact refer to the pages of the transcript of the testimony and the exhibits received in evidence at the hearing.

promptly evaporated or dried while it is still sweet. Such buttermilk, or the concentrated or dried product mixed with water to a total solids content of 8.5 percent, has a titratable acidity of not more than 0.17 percent, calculated as lactic acid. While there was evidence concerning the desirability of limiting the total bacteria count, this is impracticable at this time. (R. 276–277, 406, 626–628, 660–661, 989, 994, 1513–1514, 1517–1519, 1520–1530, 1532–1535, 1539–1546, 1548–1555, 1562–1563, 1570–1585, 1592–1606, 1607–1615, 1620–1622, 3064, 5469–5473, 5512–5527, 7023–7086, 10619–10623)

7. The tendency in recent years to use increasing amounts of nonfat milk solids in ice cream (see finding 3) has had the effect of improving the texture and, when the fat content is held at the same level, of enhancing the nutritive value of the ice cream. Lactose (milk sugar) constitutes about half or slightly more of the nonfat milk solids. It has a limited solubility in cold water, and when the nonfat milk solids of ice cream are raised to about 12 percent or above, the lactose tends to crystallize if the ice cream is held in storage. These crystals impart an undesirable grittiness known in the trade as sandiness. In order to incorporate larger amounts of nonfat milk constituents without danger of sandiness, several processes have been proposed. By one process, some of the lactose is removed from sweetened condensed skim milk by crystallization. The resulting product differs from sweetened condensed skim milk only in that it has a lower lactose content. It is a suitable ingredient for ice cream. (R. 491–499, 668, 681–684, 906, 1819, 1844)

8. Proposals were made to recognize as optional ingredients concentrated skim milks to which had been added enzymes that would hydrolyze lactose in part resulting in formation from the lactose of glucose and gelactose, sugars of greater solubility than lactose. No exact description nor identification of the enzyme capable of catalyzing this reaction was furnished. It was stated that the enzyme was obtained by separating enzymatic-active material from media prepared from milk and corn products, on which a lactose-splitting yeast had been grown. Several yeasts are known to be capable of forming enzymes that hydrolyze lactose. Some are reported to form toxic products. The proponents of the recognition as an optional ingredient of ice cream of milk or skim milk treated with an enzyme prepared from a special lactose-splitting yeast did not name the yeast they used, as they considered this fact a trade secret. They did name a number of yeasts and implied that the yeast used was one of these. Feeding tests were reported on milk preparations in which the lactose had been in part hydrolyzed by an enzyme preparation from an unidentified yeast. The testimony does not provide those facts necessary to adequately describe the proposed optional ingredients. (R. 6958–6989, 9405–9408, 15376–15397, 15412–15430, 21088–21140)

9. Other products offered for increasing the nonfat milk solids content of ice cream without danger of sandiness were said to be prepared by the following basic procedure: The casein of skim milk is coagulated by the action of an acid, usually hydrochloric. The coagulated casein is separated from the other solids of the skim milk and is then treated with a solution of soda or other alkali to restore the casein to something like its natural condition. The resulting product is usually dried. It consists mostly of casein or a compound of casein and the alkali used; large parts of the vitamins and minerals of the skim milk from which it is prepared are lost. This would tend to defeat the purpose of increasing the nonfat milk solids content of the ice cream. Similar products are described in findings 11 and 12. (R. 686–687, 927–932, 1640–1641, 2200).

10. Base-exchange treated milk consists of milk passed through a bed of zeolite sand (sodium aluminum silicate). In the process, which is similar to that used in softening some types of hard water, approximately 20 percent of the calcium in the milk is replaced with sodium. Approximately 20 percent of the phosphorus is also removed and the acidity is reduced. Lactose crystallization, which is apt to occur in ice cream containing more than 12 percent milk solids not fat, is claimed to be less likely when base-exchange treated milk is used. Use of such milk is also claimed to improve whipping properties of the ice cream mix. Such a product has been used in widely sold ice cream mix concentrates for preparing a frozen dessert in home refrigerators. Whether the use of such a product would be of advantage to an ice cream manufacturer is doubtful. The substitution of sodium for calcium and elimination of phosphorus would be of no advantage to many consumers of commercially prepared ice cream. (R. 7091–7106, 9351–9353, 9373, 9449–9461)

11. A product similar to those described in findings 7 and 9, which was described in 1942 as useful for a similar purpose, is prepared by separating casein from skim milk by the addition of a gum. Usually calcium chloride is also added. The precipitated mass is collected and dried. The final product contains casein, gum, some calcium chloride if this salt is used to aid precipitation, and a part of the soluble constituents of the skim milk. The method of preparing this product also results in a very considerable loss of the vitamins and minerals of the original skim milk. (R. 685–686, 728–729, 916, 1627–1650, 2200)

12. Caseinates other than sodium caseinate prepared by the same general procedure as described in findings 7, 9, and 11 have been advocated for use in ice cream and other frozen products. Some are represented as suitable for increasing the content of nonfat milk solids without danger of sandiness and others have been represented as giving body or texture to a frozen product similar to that imparted by nonfat dry milk but without the disadvantage of introducing a large amount of lactose. It is possible to combine casein with sodium, calcium, potassium, and ammonium hydroxides. If made sufficiently alkaline, the caseinates are soluble in water. By adjustment of the acidity the caseinate can be given different properties. In this method of preparation practically all the lactose, minerals, and vitamins present in the skim milk are removed. These caseinates are seldom, if ever, used in the commercial preparation of ice cream. The use of sodium caseinate in ice cream is reported to result in a "wet" ice cream (see finding 37). The main use of caseinates has been as ingredients of special types of mixes sold under trade names for the preparation of some special types of frozen dessert. There is no need to manipulate the casein of milk for the commercial production of ice cream, and there was no evidence justifying the conclusion that the substitution of these caseinates for nonfat milk solids is in the interest of consumers of commercial ice cream. (R. 6391–6393, 6447–6459, 7091–7098, 7645–7646, 9351–9353, 9364–9399, 11302–11303, 15600–15657, 15677–15700; Ex. 80)

13. Cheese whey is the product remaining after the removal of fat and casein from milk in the process of cheese making. It contains some of the enzymatic or other material used for coagulating the casein and often is slightly acid in reaction. Cheese whey in ice cream, ice milk, and sherbet has recently been advocated, based largely on some experimental use of a dried cheese whey used to replace part of the nonfat milk solids normally used in preparing ice cream and sherbet. Dried whey is inferior to dried skim milk in some respects, and its use in ice cream to replace nonfat milk solids would serve no useful purpose unless there was a scarcity of nonfat milk solids. There is now no basis for anticipating such a scarcity. Milk solids are less important as characterizing factors in sherbet than in ice cream, and sherbets in which cheese whey has been substituted for skim milk are reported to have desirable properties. Such sherbets should be designated "whey sherbets" to distinguish them properly from ordinary fruit sherbets which are often called milk sherbets. (See finding 51.) (R. 5910–5912, 6671–6724, 6729, 6772–6791, 6800–6810, 6825–6829, 6851–6856, 6866–6867, 6887–6892, 6895, 6896, 6903–6904, 7111–7146, 7449–7450, 7646, 9401–9408, 9440–9446, 9657, 9753–9759, 10748, 12856)

14. There was evidence about a product sold under the trade name of Sanalac and the advantages of using it in ice cream. It was first said to be made by treating skim milk with an alkali to a point where some change occurred in the lactose. The mixture was then neutralized with an acid, concentrated, and dried. Further testimony indicated that this method was changed, and that the skim milk was treated in some other way. The evidence on the composition of this product is contradictory, and the record contains no substantial basis upon which its suitability for use in ice cream can be determined. The sponsors of this product later withdrew their proposal to have it recognized as an optional ingredient. (R. 729, 1428–1505, 1661–1675, 1677–1694, 2719–2720, 2729–2731, 5462–5464, 7313)

15. The sweetening agent most commonly used in ice cream is sugar (su-

crose). It may at times be used in the form of a sugar sirup. However, other products that impart sweetness are used and are suitable for such use. These are dextrose or corn sugar; invert sugar in the form of paste or sirup, corn sirup, or dried corn sirup; and glucose sirup. These may be used singly or in combination with each other and with sugar. Sirups containing various proportions of sugar and invert sugar are sometimes used instead of sugar. There was testimony from suppliers relating to the composition and properties of various sugar sirups and invert sugar sirups and the meaning of the term "liquid sugar." It is unnecessary in definitions and standards of identity for ice cream, frozen custard, sherberts, etc. to prescribe rigid specifications for the sweetening ingredients designated by their common names. The term "liquid sugar" is an inaccurate designation applied in the sugar trade to various sugar and invert sugar sirups, and this term is not used in standards for ice cream and related foods. Suitable sweetening ingredients are designated by more accurately descriptive names. There are some sirups of which the sweetening ingredient is mainly maltose that contribute sweetness without imparting detectable flavor. They may be described as "maltose sirups," and are suitable sweetening ingredients for ice cream. Although lactose has little sweetening power in comparison with sucrose, it is occasionally added in small amounts to ice creams having a relatively low content of nonfat milk solids. The amount that can be used is limited by danger of "sandiness" which may occur if too much is used. For such use lactose should be considered a sweetening ingredient. Additional products that serve the dual purpose of sweetening the ice cream and imparting to it their own characteristic taste and flavor are specified in finding 25. (R. 44–45, 407–409, 537, 693, 733, 831, 1126, 1705–1715, 1784–1787, 1799–1803, 1814–1820, 1835–1838, 1845–1846, 1853–1859, 1862, 1882–1937, 1939–1953, 11275–11295, 11312–11324, 11332–11374, 15040–15103, 15114–15126, 15148–15220)

16. Ground spices, ground vanilla beans, infusions of coffee or tea, and a large variety of natural food flavorings, such as extracts of lemon and vanilla, are used as characterizing flavors of ice cream and are suitable for such use. (R. 54–55, 237, 248, 409, 544, 1152, 3032; OP Ex. 3)

17. Various artificial food flavorings are also widely used to modify or characterize the flavor of ice cream. They may be added as such or as components of other ingredients. When so used that they do not create a misleading impression as to the presence of a natural ingredient or the amount of a natural ingredient present, artificial food flavorings are suitable ingredients of ice cream. Consumers quite generally prefer natural over artificial flavorings and desire to know when artificial flavorings are present in ice cream. To the extent that accurate information can be conveyed to consumers by labeling on ice cream, label statements of the use of artificial flavorings are in the consumer's interest. Label statements that comply with the requirements of the general provisions of the Federal Food, Drug, and Cosmetic Act are "artificially flavored," "artificial flavoring added," "with added artificial flavoring," or, if the artificial flavoring is not added as such but as a component of some other ingredient, the statement "---------- artificially flavored," the blank being filled in with the name of such other ingredient. (R. 85–86, 416, 426–429, 1248, 1382–1384, 1391–1394, 1401–1402, 1963–1965, 1982, 1997, 2011–2012, 2903, 5095–5099, 5254, 21324–21326, 21371–21374; Ex. 413)

8. The kind of ice cream now produced in greatest quantity has a flavor derived from vanilla beans, extract of vanilla beans, vanillin (a constituent of cured vanilla beans but prepared chiefly by synthetic processes), imitation vanilla flavors, or mixtures of these substances. Interested persons proposed that the standard for ice cream prescribe the type of flavoring used in ice creams having flavoring purported to be vanilla. This proposal would, in effect, require definitions and standards of identity for the many various kinds of ice cream. Although this record contains enough evidence to prescribe standards for some kinds of ice cream, this is not adequate to warrant prescribing separate standards of identity for the great number of kinds of ice cream named in the course of the hearing. In any event, the misbranding of ice cream as to the kind of flavoring used is subject to the general misbranding provisions of the Act. (R. 54–55, 237, 538, 540, 1394, 1395, 4451–4452, 4459, 4462–4465, 4468, 4471, 4473, 4479, 4511–4513, 4517, 4521, 4527, 4532–4535, 4552–4553, 4566, 4578, 4587–4591, 4650, 4659, 4661, 4681–4683, 4688, 4710, 4713, 4728, 4730, 4756, 4782, 4799, 4801, 4912–4913, 4916–4917, 4943, 4952, 4971, 4980, 5093–5094, 11101–11119, 11122–11123, 11129–11131, 11137, 15289, 15306, 15319, 15323; Ex. 228–232, 310)

19. Chocolate, various kinds of cocoas, the unpulverized residual material prepared by removing part of the fat from ground cacao beans, or mixtures of any two or more of these substances are used as characterizing ingredients of a kind of ice cream. These cacao ingredients may be added to the ice cream mix as the dry substances or as suspensions in a sirup. When certain kinds of chocolate or cocoa are used they may cause undue thickening of the mix during pasteurization, which results in difficulties in subsequent steps of manufacture. This may be prevented by the use of a small quantity of disodium phosphate or sodium citrate. The quantity necessary and suitable for this purpose is not more than 0.2 percent by weight of disodium phosphate or 0.1 percent of sodium citrate. Sodium bicarbonate was also proposed as an optional ingredient for use in chocolate flavored ice cream to reduce viscosity due to chocolate or cocoa. However, its use might lead to neutralization of a slightly sour mix which is undesirable, as explained in finding 36. Disodium phosphate and sodium citrate are much less likely to be used as neutralizers than sodium bicarbonate. (R. 56, 87, 238, 414–415, 546, 648, 692–693, 790–791, 1790, 1807–1808, 3072, 3076, 3102, 5826, 5856–5859, 5961, 6051–6062, 6235–6237, 6249–6253, 6501–6502, 6566–6570; finding 36)

20. When fruits are used to characterize ice cream it is customary to use the fresh fruits, when they are available. However, frozen and canned fruits are also extensively used and are suitable for such use. Dried fruits are sometimes used and are likewise suitable. Fruit juices, alone or in combination with fruits, are also suitable for use in ice cream. The fruit juice used may be fresh, canned, frozen, concentrated, or dried. In concentrating fruit juices some volatile flavoring is usually lost. This may be recovered and added back to improve the flavor of concentrated fruit juices. (R. 57, 238–240, 529, 1104, 1167–1168, 1278–1282, 12785–12795, 12960–12966, 13194–13196, 13257–13260)

21. To be suitable for use in ice cream, fruits should be mature and properly prepared by removal of pits, seeds, skins, and cores, where such removal is the usual procedure in preparing such fruit for consumption as fresh fruit. The fruit may be pureed or comminuted. In the case of some berry fruits, the seeds are usually removed in the pureeing process. In the case of citrus fruit, however, the whole fruit, except seeds, is often used in order to obtain the flavoring value of the peel. Fruits are usually sweetened before addition to ice cream, and for some types of ice cream (ripple, variegated, marbleized) the fruit and sugar mixture is thickened with pectin or one of the ingredients named in finding 30. The proportion of sugars to fruits varies, but the sugar content of mixtures usually ranges from 30 percent to 50 percent. Sometimes prepared fruits have been acidulated or are acidulated before use. Citric and ascorbic acids are suitable for the acidulation of such fruits. Ascorbic acid is sometimes used in frozen fruit to reduce discoloration due to enzymatic oxidation. (R. 57, 194–196, 415, 469, 543, 788, 1059, 1145, 1276–1284, 1364, 1957, 1966, 1973–1974, 2001, 2006, 2023, 2417, 2422–2425, 2460–2461, 2469–2472, 2490, 2503–2504, 3031, 3083–3084, 4265–4266, 4296, 4359–4360, 4393–4397, 5870–5874, 5885–5886, 5889–5891, 6637–6638, 13190–13269)

22. Coconut in several forms is used to characterize ice cream. The coconut ingredient may be shredded, comminuted, or in particles of varying sizes intermediate between shreds and the very fine particles of comminuted coconut. The shredded form of coconut is often sweetened. The comminuted form imparts a greater proportion of coconut flavor to ice cream than the other forms. On a moisture-free basis, the flesh of the coconut contains a high proportion (usually over 60 percent) of a fatty oil. When comminuted coconut is added to an ice cream mix, this fatty oil becomes commingled with the milk fat of the mix. When shredded coconut is so used, most of the coconut oil remains in the shreds. It is possible, however, by chemical analysis to estimate the quantity of coconut oil in the mixture. Coconuts are sometimes considered a fruit, and for the

purposes of an ice cream standard it is reasonable to classify coconut as a fruit and permit a reduction in milk fat in proportion to the weight of coconut added, with the same allowance for sugar added to the coconut ingredient as with other sweetened fruits. The use of coconut should be subject to the same minimum requirements for milk fat in the fruit ice cream as are required in the case of other fruits. (R. 11176–11266)

23. Substantial quantities of fruit must be added to ice cream to impart the definite fruit characteristics expected by consumers in a fruit type of ice cream. However, the evidence is insufficient to establish numerical minima for the content of the various fruits so used. (R. 58, 86, 188–192, 252–265, 269–271, 417–421, 1050–1059, 1091, 1097, 1105–1109, 1111–1113, 1128, 1144, 1147, 1152, 1161–1162, 1282–1286, 1304, 1330, 1365–1366, 1377, 1959–1960, 1973, 6936–6939; OPEx. 5; Govt. Ex. 8, 9, 10)

24. Properly prepared nuts are frequently used to characterize ice cream. The nuts used are sometimes roasted or cooked in butter or other food oil or fat and are sometimes preserved in a sirup. Substantial quantities of nuts must be added to ice cream to impart the definite characteristics expected by consumers in a nut-type ice cream. However, the record does not contain sufficient evidence to establish numerical minima for the contents of the various nuts so used. (R. 58–59, 86, 197, 241–242, 254–265, 271, 422–424, 545, 1060–1063, 1110, 1151, 1153, 1231–1232, 1288–1289, 1365, 1961–1963, 1978–1979, 1981, 2005, 2900, 2973–2974, 2994, 5095–5099, 5822, 5827, 5954–5955, 6193–6194; Govt. Ex. 8, 9, 10; OPEx. 5)

25. In addition to contributing sweetness, maple sirup, maple sugar, honey, brown sugar, malt sirup, dried malt sirup, malt extracts in liquid or dry form, and molasses (other than blackstrap) are frequently used to characterize ice cream or modify its flavor, and are suitable for such use. A product somewhat similar to molasses but obtained in the process of refining crude sugar is known under the general term "refiner's sirup." There was evidence that some refiner's sirups are suitable for sweetening ice cream. In addition to sweetness, refiner's sirup may impart some flavor. There was no evidence that any designation of a kind of ice cream has ever contained a reference to refiner's sirup, but there is no reason to conclude that refiner's sirup cannot be used in a special type of ice cream without jeopardizing the consumer's interest. (R. 43, 243, 408, 693, 1714, 1730, 1733, 1948–1951, 5891, 6313–6375, 11306–11312, 11321–11324, 11332, 11334–11373, 15040–15103, 15114–15126, 15147–15222)

26. Malted milk is used, and is suitable for use, as a characterizing ingredient of ice cream. Although malted milk contains substantial quantities of milk solids, its use by ice cream manufacturers is solely as a characterizing ingredient and not as a source of milk fat or nonfat milk solids. (R. 694, 801–802, 936–938, 1653–1657, 11326–11327)

27. Candy, cakes, cookies, cooked cereals, and glaceed fruits also are used to characterize ice cream, and are suitable for such use. (R. 57, 59, 244–247, 424–425, 4826–4828)

28. Wines and distilled alcoholic beverages, including liqueurs, are used to characterize ice cream and are suitable for such use. (R. 59, 425–426, 1153, 1338–1343)

29. Eggs or egg yolks (liquid, frozen, or dried) are often used in small quantities in ice cream, both in the home and in commercial manufacturing plants. Their use commercially is said to facilitate whipping or the incorporation of air into the ice cream. When eggs or egg yolks are used in sufficient quantity they impart their color and flavor and create a frozen product different from ice cream and which is known as frozen custard (see finding 49). The egg ingredient should be added before the mix is pasteurized. The quantity of eggs or egg yolk used in ice cream is such that the egg yolk solids in the finished ice cream are less than in frozen custard. (R. 65–68, 82, 87, 234, 397, 431–437, 691–692, 741–742, 932–936, 997–998, 4834–4835)

30. A number of different substances used in ice cream for the same general purpose may be grouped into the class commonly known to ice cream manufacturers as stabilizers. The practice of using such substances began many years ago with the addition to ice cream mix of small amounts of gelatin. Other substances were also found to be helpful in retarding the formation of large ice crystals in ice cream, particularly when the ice cream is stored for some time under conditions that cause it to undergo changes in temperature. Effects on the properties of ice cream other than retardation of ice formation can be obtained with some of the stabilizers now used. The capacity of an ice cream mix to hold incorporated air may be affected. The viscosity of the mix and of the melted ice cream may be increased. The use of some stabilizers may produce a smoothness suggestive of richness. Deception of consumers through use of some stabilizers appears possible; but aside from suggesting that a limit be set on the quantity of stabilizer used, the record affords insufficient basis for restricting the use of stabilizers to those that affect only ice formation. A limit of not more than 0.5 percent of stabilizing substance has long been in effect in many State standards, and this limit is generally regarded by ice cream manufacturers as reasonable. In addition to using a stabilizer in the ice cream mix, a stabilizing substance, including pectin, is sometimes added separately to the fruit ingredient.[3] A limit of 0.5 percent of pectin or other stabilizer is sufficient to include this additional use.

The following substances were, at one time or another prior to the hearing held in 1942, widely used as stabilizers: Gelatin, sodium alginate (often referred to as algin), extract of Irish moss, psyllium seed husks, agar-agar, and several gums, including gum acacia, gum karaya, locust bean gum (carob bean gum), gum tragacanth. Guar seed gum has since been used. A substance derived from oat flour and referred to as oat gum is also apparently effective as a stabilizer. Oat flour has some stabilizing properties, but such large quantities are needed that, when used alone, it is not a satisfactory stabilizer. There was testimony that oat flour has antioxidant properties, but no need for the use of such an antioxidant in ice cream was established. Pectin may be used as a stabilizing ingredient in the fruit component of some ice cream. Since 1941, a substance prepared from cotton linters by treating them with sodium hydroxide and then reacting with monochloracetic acid has been widely used as a stabilizer. The chemical name of the substance is sodium carboxymethylcellulose. It is often referred to by the rather misleading designation "cellulose gum." Pharmacological tests of this product were reported which indicated that it passed through the body without being absorbed. (R. 45, 53, 90, 437–439, 549–551, 691, 733–741, 805–806, 824–830, 1860, 2031–2038, 2040–2047, 2067–2073, 2079–2119, 2124–2158, 2190–2192, 2202, 2208–2223, 2248–2259, 2271–2276, 2336–2339, 2374–2382, 2468, 2485–2486, 2515, 2537, 2558, 2691–2717, 2735–2753, 2761–2771, 2773–2793, 2802–2824, 2832–2873, 3053, 3203, 4888–4899, 4913, 5895–5896, 6023–6027, 6066–6076, 6224–6225, 6267–6268, 6274–6275, 6379–6386, 6398–6422, 6435–6338, 6493–6496, 6526–6535, 6542–6549, 6868–6870, 6943–6945, 7314–7317, 7558–7589, 9466–9540, 9549–9584, 9588–9607, 9615–9621, 9644–9650, 9651–9658, 9698–9723, 9746–9752, 9764–9770, 9772, 9814–9822, 9830–9831, 9833–9834, 9857–9887, 9890–9891, 10020–10053, 10079–10131, 10158–10165, 10170–10173, 10194–10203, 10208–10213, 10423–10428, 10430–10437, 10606, 10693–10715, 10720–10734, 10755–10756, 10761–10762, 10814–10829, 10831–10834, 10840–10844, 10850–10852, 10854–11007, 11053–11057, 11089–11091, 11684–11686, 15104–15114, 15127–15145, 15222–15284, 15465–15482; Ex. 90, 91)

31. Another product, developed since 1942, which was proposed as a stabilizer in ice cream, is a propylene glycol ester of alginic acid, sold under the trade name of Kelcoloid. The sodium salt of alginic acid (see finding 30, sodium alginate) was the subject of testimony at the earlier hearing held in 1942. Limited testimony at that time concerning the pharmacological properties of sodium alginate indicated that it was suitable for use in foods. Later, in 1951, reports of feeding experiments with both the sodium alginate (in preparations having the trade names Dariloid and Kelgin) and the alginic acid ester of propylene glycol (sold under the trade name Kelcoloid) were introduced into this record, and there was testimony about the experiments so reported. The reports of the completed experiments show that the experimental work was carried out in such a way that it is impossible to draw from the record reliable conclusions relative to the significance of the results. For example, the number of rats used in long-term experiments was so small that calculations of average life spans of control and experimental animals may be unreliable. In the experimental feeding

[3] Although this practice may be without deception when such fruit is used in ice cream, this finding has no application to thickeners added to fruit for other uses.

of the product called Kelcoloid, rats of different breeds were used in some experiments, introducing an unnecessary variable. In some instances only male rats were used; in others there were combinations of males and females, but predominantly males. In the Kelcoloid experiments, some rats died early on the lowest level (5 percent) fed; diarrhea was noted at times, but no attempt was made to establish whether the deaths were due to Kelcoloid or to ascertain the significance of the diarrhea. In the experimental feeding of Kelcoloid to chicks their growth was retarded at all levels used, but this was ascribed to the physical condition of the diet, without further experimental feeding using variable quantities of the test substance in the diets and of diets prepared to have different consistencies. (R. 9466, 9473–9474, 9486–9489, 9514, 9903–9966, 9969–9989, 9990–10017, 10180–10192, 10214–10240; Ex. 84, 86)

32. Calcium sulfate has been used in conjunction with some stabilizers for the purpose of making ice cream stiffer, drier, and slower melting. There was considerable testimony that its use imparted desirable characteristics to ice cream drawn from counter freezers for cups, cones, and some novelties. When calcium sulfate is used it supplements the other stabilizers, and their combined weight need not exceed 0.5 percent of the weight of the finished ice cream. (R. 10428–10430, 10438–10469, 15434–15447, 15453, 15459–15463, 15469–15475, 15488, 15495, 15503–15535, 15556–15564)

33. The evidence does not establish that lecithin is used to any substantial extent in ice cream, that it is effective as a stabilizer in ice cream, or that it has any legitimate place in the product. (R. 2564–2614, 2617–2626, 2630–2643, 2656–2658, 2662–2684)

34. A proposal was made that a propylene glycol solution of butylated hydroxyanesole, propyl gallate, and citric acid be permitted as an antioxidant for dairy ingredients used in ice cream, but before testimony on this substance was completed the proposal was withdrawn. (R. 21146–21287)

35. A proposal was made to make nordihydroguaiaretic acid (NDGA) and citric acid dissolved in propylene glycol optional ingredients of any of the dairy products recognized in the definition and standard of identity adopted for ice cream, with limits of 0.005 percent for NDGA and 0.0025 percent for citric acid, calculated as percentages by weight of the butterfat (milk fat) content of such dairy product ingredients. The evidence indicated that in some instances where cream was frozen and stored for later use in ice cream, a type of off-flavor (referred to as oxidized flavor) developed in the cream, and that the development of this off-flavor could be prevented or retarded by adding the solution of NDGA and citric acid to the cream before freezing. Citric acid was said to have a synergistic effect on the NDGA; propylene glycol was merely a convenient solvent. It was said that sweetened condensed milk also developed oxidized off-flavors at times and that this could be prevented or retarded by the addition of NDGA to the sweetened condensed milk. There was also evidence of the development of off-flavors in fluid milk, but little connection was shown between such milk and ice cream. Although there are rather voluminous reports in the literature on the subject of so-called oxidized flavors in dairy products, there is little real proof that flavors so noted are due to oxidation.

There are definitions and standards of identity for cream and sweetened condensed milk issued under the Federal Food, Drug, and Cosmetic Act (21 CFR, Part 18), and in neither standard is NDGA, citric acid, or propylene glycol listed as an optional ingredient. To provide in the standard for ice cream that NDGA, citric acid, and propylene glycol may be added to cream and sweetened condensed milk that are later to be used in ice cream would have the effect of amending the standards for cream and sweetened condensed milk or making separate standards for these foods for use in ice cream, without following the requirements of section 701 of the Federal Food, Drug, and Cosmetic Act. There was evidence concerning the pharmacological properties of NDGA, but in view of the finding of the inadequacy of this record as a basis for amending the standards for cream and sweetened condensed milk, no findings on evidence relative to pharmacological properties of NDGA will be made. (R. 13288–13371, 15567–15598)

36. Ice cream has customarily been made from dairy ingredients that are not sour. From their general knowledge of the composition of ice cream, derived from its home preparation, consumers do not expect the milk or cream (or other dairy product used in place of these) for ice cream making to be sour or to be prepared from sour materials. Some ice cream manufacturers have added to the dairy ingredients baking soda and other alkalis, such as calcium hydroxide, magnesium hydroxide, and magnesium carbonate, to neutralize the acidity resulting from the souring of milk and cream. An ice cream mix prepared with sour dairy products is likely to cause difficulty, such as thickening and curdling during pasteurization, homogenization, or freezing, unless the acidity of the mix has been neutralized by an alkali. It was proposed that the alkalis sodium bicarbonate, sodium citrate, sodium phosphate, magnesium oxide, magnesium hydroxide, magnesium carbonate, magnesium sucrate, calcium oxide, calcium hydroxide, and calcium sucrate be recognized as optional ingredients of ice cream. It was claimed that the use of such alkalis is necessary to permit the use of milk and cream that have developed a slight acidity while being held for use or during shipment from distant points; that neutralization would not result in abuses, since consumers would refuse ice cream having the objectionable flavor accompanying excessive souring; and that in any event the practice could be controlled by setting a limit on the amount of acidity that could be so neutralized. Some manufacturers use neutralizing agents to reduce the slight acidity naturally present in ice cream mix, even where no souring has occurred, sometimes with the idea of manipulating the flavoring or whipping quality and sometimes upon theories, which have not been established, that reduced acidity permits the use of larger quantities of nonfat milk solids without danger of sandiness and improves the viscosity of certain mixes.

A further proposal was made to permit the addition of neutralizers only where there was a slight souring of ingredients as measured by the presence of lactic acid. Recognition of the alkaline substances proposed as optional ingredients of ice cream, even under limits suggested, would permit and likely encourage the use of certain sour-milk products that are not normal nor acceptible ingredients of ice cream; would hinder the work of agencies that long and successfully have been striving to improve the sanitary quality of dairy products used in ice cream; and might result in the concealment of the presence of such unfit milk products. (R. 51–52, 404, 525, 571, 624, 701, 704, 792, 809–811, 945–954, 975, 978, 1010, 1179, 1245, 1260, 1790, 1807–1808, 1867–1870, 2164, 2264, 2279–2286, 2308–2323, 2487, 2522, 2882–2897, 2965–2968, 3004–3006, 3012–3018, 3022, 3054–3058, 3071, 3189–3192, 3297–3300, 3317, 3371, 3374, 3570, 3637–3640, 4016, 4495–4497, 4504, 4847, 4912, 5136–5140, 5181, 5239–5242, 5280, 5302–5303, 5336–5339, 5417–5462, 5492, 5501–5505, 5881, 5904–5906, 6269–6270, 6443–6447, 6474–6482, 6498–6500, 6559–6566, 6626–6633, 6635–6636, 6869–6870, 6941–6942, 6945, 6952–6956, 7255, 7286–7291, 9517, 9608, 9824, 9893–9894, 10552–10554, 10618, 10647, 10747, 10769, 10853, 12413, 12420–12441, 12497–12567, 12571–12607, 12610–12619, 12625–12626, 12632–12653, 12656–12670; Ex. 7; Govt. Ex. 18–24, 37)

37. Batches of ice cream occasionally have the appearance of being "wet" or not fully frozen. Sometimes there is a partial separation of the casein in curd-like particles. Sometimes there is difficulty in cooling the mix after pasteurization and homogenization, due to its becoming too thick to flow freely, a condition often ascribed to the clumping together of particles of fat. Occasionally, different batches of ice cream prepared by the same formula show differences in apparent smoothness and richness. These difficulties often arise from the improper adjustment of certain mechanical equipment used in preparing the mix or in freezing the ice cream. Most, if not all, of these difficulties occur when dairy ingredients are used in which souring has progressed to some degree, and in such cases the use of small quantities of the alkalis referred to in Finding 36 will correct the trouble; but such use in subject to the objection expressed in that finding. Some persons advance the theory that these difficulties may arise when the mechanical equipment is in proper adjustment and the dairy ingredients used are sweet. In such circumstances these persons ascribe the difficulties to a condition of the mineral salts naturally present in milk, which condition they call lack of salt balance. They describe this as an abnormal relationship in the relative proportions of

calcium and magnesium ions, on the one hand, to phosphate and citrate ions on the other. To compensate for a deficiency in calcium and magnesium ions these persons recommend the use of calcium chloride or calcium lacate, and for a deficiency in phosphate or citrate ions they recommend the use of sodium citrate, disodium phosphate, sodium pyrophosphate, or sodium metaphosphate. If slightly alkaline sodium salts are used, some neutralization will be obtained. A proposal was made to use sodium hexametaphosphate, which is not an alkaline salt. The testimony indicated that sodium hexametaphosphate reacts with calcium ions to form a complex compound. Whether this action affects the acidity of the mix is not clear. The advocates of the use of sodium hexametaphosphate postulate an unusual condition in the milk but do not furnish any reliable evidence regarding the quantity of various ions present nor suggest that the quantity of hexametaphosphate added should be based on particular needs. Since the effects expected from hexametaphosphate—that is, prevention of curdling and reduction of viscosity—are the same effects for which others recommend the use of neutralizers, the best solution from the standpoint of the consumer is to use good raw materials.

The use of any of the above-discussed salts, except disodium phosphate or sodium citrate, in a mix characterized by cacao ingredients has been limited. No real need was shown on this record. (R. 624, 709–711, 748–763, 769–770, 809–822, 846–858, 869–874, 921–926, 960–977, 998–1000, 1790, 1876–1881, 2172, 2289–2296, 2499, 2520–2523, 3113–3150, 3152–3160, 3162–3170, 3205–3233, 5135, 5260–5267, 5332–5336, 5418, 5421, 5432, 6044–6045, 6121–6124, 6390–6391, 6438–6440, 6465–6473, 6482, 6484, 6498–6500, 6513–6519, 6570, 9765–9766, 12673–12712)

38. Several products made by adding alkalis to skim milk and concentrating the mixture and drying it to a powder are sold under trade names with representations to ice cream manufacturers that by the use of such products the quantity of nonfat milk solids in ice cream can be increased without danger of sandiness. There was also testimony concerning a mixture of an alkali-treated dried skim milk and dried egg yolk, largely to the effect that its egg yolk content causes a change in texture and permits a high overrun. There was considerable testimony about a product sold under the trade name of Nutrimix, which is made by evaporating skim milk to 20 percent solids and adding approximately 1 percent calcium hydroxide or magnesium hydroxide and ⅓ percent anhydrous disodium phosphate or sodium citrate. Claims were made that the likelihood of sandiness from crystallization of lactose would be reduced by using Nutrimix as an ingredient of ice cream, permitting the use of more nonfat milk solids. This reduction in sandiness from crystallization of lactose was said to result from a decrease in size but increase in number of lactose crystals. It was postulated that calcium phosphates in finely divided form incorporated in the ice cream through the Nutrimix provides nuclei around which the lactose crystals adhere. The record contains conflicting testimony on the effect of alkalinized products in preventing sandiness caused by lactose crystallization. The addition of calcium hydroxide and disodium phosphate to ice cream mix for such purpose is not justified, according to testimony of competent investigators. Whether the use of Nutrimix which is essentially neutralized nonfat milk solids, has any effect on the formation of lactose crystals, appears extremely doubtful. (R. 44, 730, 3238–3280, 3557–3570, 3605–3616, 6564–6567, 7735–7880, 12355–12400, 12412–12438, 12444–12493, 12592, 12603–12608, 12656–12669; Govt. Ex. 20, 24, 37)

39. Carotene (provitamin A) was proposed by a manufacturer of this substance as an optional ingredient of ice cream for the purpose of enhancing its nutritive value. The evidence does not establish that carotene is stable and retains its potency in ice cream. Ice cream is consumed in relatively small quantities by those groups of the population whose diet is likely to be deficient in vitamin A. It is not shown that, even if carotene retains its potency in ice cream, the quantity of vitamin A it would contribute to such diets would be of any substantial significance; nor was it shown that carotene would otherwise serve a useful purpose in ice cream. To avoid confusing and misleading consumers, the fortification of foods with vitamins should be restricted to a few staple foods that are effective carriers of the particular vitamins deficient in the diet of a significant segment of the population that regularly consumes the foods to be fortified. The quantities of carotene suggested for addition to ice cream would be of no substantial nutritional significance and would tend to mislead consumers. (R. 3850–3868, 3871–3897, 4992–5012, 5041–5046; OPEx. 100)

40. Many kinds of ice cream are colored. When so used that they do not create a misleading impression regarding the presence of a natural ingredient or the amount of a natural ingredient present, colorings are suitable ingredients of ice cream. (R. 53–54, 86, 547–548, 614, 776–778, 1021, 1102–1103, 1119–1126, 1143–1144, 1148, 1183, 1344, 1958, 1970, 1975, 1993–1995, 2507, 3025, 4361, 4835, 4845)

41. To obtain uniformity of distribution of the components of ice cream mix and to disperse the fat particles so as to produce a better texture in the finished product, it is customary to heat the ice cream mix to a temperature of about 145° F. or above while the mix is being stirred and then to run it through a homogenizer. (R. 43, 530, 745–747)

42. The heating prior to homogenization is normally such that it pasteurizes the mix. Pasteurization reduces the danger of milk-borne diseases and increases the keeping quality of ice cream. Pasteurization is generally recognized as an essential step in the preparation of commercial ice cream, and consumers expect the protection from milk-borne diseases afforded by pasteurization. (R. 397, 534, 745)

43. The milk fat content of ice cream has always been considered an important factor in the identity of this frozen food. A sufficient quantity of milk fat is necessary to impart certain properties to ice cream that serve to differentiate ice cream from less rich frozen foods, such as ice milk and sherbets. In the period 1900–1941 each State and the District of Columbia by legislation or regulation fixed minimum limits for milk fat in ice cream. In many cases the limits in a State have been changed once or oftener, reflecting changing conditions in the ice cream industry. Just prior to the beginning of World War II, the minimum requirements for milk fat in plain ice cream in the various States and the District of Columbia were as follows:

Minimum requirement of 8 percent milk fat: District of Columbia, Missouri, Rhode Island, Texas, West Virginia.

Minimum requirement of 10 percent milk fat: Alabama, Arizona, Arkansas, California, Connecticut, Florida, Georgia, Indiana, Kansas, Kentucky, Louisiana, Massachusetts, Mississippi, Montana, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia, Washington.

Minimum requirement of 12 percent milk fat: Colorado, Delaware, Illinois, Iowa, Maryland, Michigan, Minnesota, New Mexico, North Dakota, Oregon, South Dakota, Utah, Wyoming.

Minimum requirement of 13 percent milk fat: Wisconsin.

Minimum requirement of 14 percent milk fat: Idaho, Maine, Nebraska, Nevada, New Hampshire, Oklahoma, Vermont.

Because of short supplies during World War II, many States relaxed their requirements for a minimum milk fat content of ice cream. After the end of hostilities, most, but not all, States reinstated their former requirements for milk fat in ice cream. In 1951 the requirements of various States for minimum milk fat content of plain ice cream were as follows:

Minimum requirement of 8 percent milk fat: District of Columbia, Missouri, Rhode Island, Texas, West Virginia.

Minimum requirement of 10 percent milk fat: Alabama, Arizona, Arkansas, California, Connecticut, Florida, Georgia, Indiana, Kansas, Kentucky, Louisiana, Massachusetts, Mississippi, Montana, New Jersey, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, South Carolina, Tennessee, Virginia, Washington, Wyoming.

Minimum requirement of 12 percent milk fat: Colorado, Delaware, Idaho, Illinois, Iowa, Maine, Maryland, Michigan, Minnesota, Nebraska, New Mexico, North Dakota, Oregon, South Dakota, Utah.

Minimum requirement of 13 percent milk fat: Wisconsin.

Minimum requirement of 14 percent milk fat: Nevada, New Hampshire, Vermont.

In all States ice cream with a milk fat content higher than the minimum required by the State law are manufactured and sold. A survey made in 1947 by the International Association of Ice Cream Manufacturers among wholesale ice cream manufacturers indicated that

about two-thirds of the so-called vanilla ice cream (including unflavored ice cream) made in the United States had a fat content of 12 percent or over. (R. 11395–11434; Ex. 135, 135A, 136, 137, 138, 139, 182, 415; Govt. Ex. 4)

44. In deciding upon what ice cream to purchase, the factors considered most important by consumers are the richness of the ice cream and satisfactory flavor. Although there are ice creams on the market with varying fat contents and with many kinds of flavors, the consumer at the present time has no practicable way of determining the fat content of an ice cream he purchases. The retail price of ice cream and of related frozen products such as ice milk and sherbet vary, and the price is not a reliable indication of the fat content. The fat content of ice cream sold in the United States is influenced by many factors, one of the most important factors probably being the minimum limits on fat content established by standards in several States. Probably, however, the most important factor is the desire of manufacturers to provide a fat content of ice cream that is generally acceptable to consumers at prices that return the maximum profit. When deciding upon the formula for an ice cream to be sold in a particular area, the manufacturer naturally chooses the one that he believes will bring him the greatest financial returns. Without increasing the fat content of ice cream, it is possible to increase the property referred to as smoothness (for lack of a better term) by the judicious use of nonfat milk solids and some stabilizing and emulsifying agents and by heat treatment of the mix before freezing. Smoothness and richness are closely related factors, probably not separated in the minds of most consumers. There is no question about the desirability of an adequate quantity of nonfat milk solids in ice cream. Due to the relatively low cost of nonfat milk solids in comparison with milk fat and to the fact that an increase in the quantity of nonfat milk solids tends to compensate in some ways for lowering the fat content of ice cream, there has been no serious problem from failure of ice cream manufacturers to use sufficient nonfat milk solids. It is therefore necessary to fix a minimum fat content to insure real richness in ice cream, and it is desirable to set a minimum limit on total milk solids.

In some areas the milk fat content of the formula found most profitable is around 10 percent and in other areas is 12 percent or higher. In either case, the total milk solids content is usually 20 percent or more. Ice creams having a fat content ranging from 10 percent to about 14 percent do not vary so greatly in their richness that they are readily distinguishable from each other by merely tasting, particularly if the consistency of the melted ice cream is increased by use of a stabilizer or heat treatment of the mix; and ice cream manufacturers depend on consumers' acquiring a liking for a particular brand from continued use. When the fat content goes above 15 percent, however, an ice cream can be readily distinguished from ice cream with a fat content of around 10 percent.

Generally, the retail price of ice creams of a fat content higher than 15 percent is definitely more than that of ice creams around 10 and 12 percent. In the case of ice creams having 10 percent to a little over 12 percent milk fat, the retail prices overlap. In some areas consumers are able to purchase high-fat ice creams (14 percent or more fat) at an increased price; in many areas, however, no such ice creams are available. In some areas competition or other factors have brought the fat content of most of the ice creams down to nearly the State minimum, and the consumer has little choice insofar as the real richness of ice cream is concerned. The per capita consumption of ice cream seems to have been affected by the per capita income more than by any other factor.

It will promote honesty and fair dealing in the interest of consumers to require the minimum fat content of ice cream to be such that a reasonable degree of richness will be furnished by the milk fat. It is concluded that a requirement for a minimum fat content of 10 percent in plain ice cream is likely to achieve this. A requirement of not less than 20 percent total milk solids will insure adequate milk solids. Consumers wishing a less rich frozen dairy product should be able to obtain it by purchasing a very similar product with less fat, for which a standard is proposed under the name "ice milk." (R. 23–25, 27, 46, 50, 83–84, 40–443, 478–479, 564, 678–679, 1022–1025, 1101, 1158–1159, 1236–1244, 1259, 1263, 1834, 1865, 2230–2231, 2240, 2489, 2908–2912, 2981–2982, 3175–3184, 3321–3323, 3349–3350, 3364, 4422, 4433–4447, 4487–4494, 4498–4500, 4836, 4914, 5133, 5482–5491, 5900–5903, 5915–5916, 5978, 6168–6177, 6191, 6270–6273, 6401–6403, 6427–6430, 6432, 6536–6540, 6603–6605, 6646–6648, 6857–6859, 7014–7016, 7257–7262, 7264–7273, 7579, 7630–7631, 7636–7645, 8278, 8508, 9759–9762, 9825–9826, 9841–9844, 9888–9889, 10139–10144, 10203–10206, 10535–10545, 10549–10550, 10610–10611, 10616, 10644–10647, 10665, 10740, 10746, 10757–10760, 10836, 10845–10846, 11277–11278, 11507–11548, 11567–11573, 11590, 11612–11624, 11681–11684, 11704–11714, 11720, 11745–11750, 11770–11776, 11787–11791, 11856–11858, 21295–21320, 21324–21348, 21371–21374, 21410–21428; Govt. Ex. 3, 5, 28–34; Ex. 137–140, 142, 143, 224, 413–417)

45. The characterizing ingredients specified in findings 19, 20, 21, 22, 23, 24, and 27 are bulky; that is, they must be used in relatively large quantities in order to characterize ice cream. When such quantities are added to an ice cream mix, the fat content of the finished ice cream will be lowered in proportion to the quantity of such characterizing ingredients used. This provision for dilution is recognized in practically all State standards. A considerable number of States permit a reduction in fat content proportional to the quantity of such characterizing ingredients, but provide that in no case shall the reduction be more than 2 percent. Many States provide for a flat reduction of 2 percent. Most State standards limit the reduction to not more than 2 percent below the minimum prescribed for ice cream characterized by nonbulky ingredients. The characterizing ingredients specified in findings 16, 17, and 29 are used in relatively small quantities and do not significantly lower the fat content of the mix. In calculating the dilution from fruit and nuts, it is reasonable to allow for the dilution caused by the sweetened fruit or nut product added, provided the sweetening ingredient of such product does not constitute more than 40 percent of its total weight.

The extent of the dilution of a mix with chocolate or cocoa, when making a chocolate-flavored ice cream, depends on whether the chocolate or cocoa is added as such or suspended in a sirup. When dry cacao products are used, the total dilution from the chocolate product and from additional sugar is relatively small, but if a suspension of a cacao product in sirup is used the dilution may be much greater. A proposal was made that the standard for ice cream provide that "the components of a sirup made from chocolate or cocoa may be considered equivalent to such sirup and may be added prior to pasteurization." Since this proposal sets no limit on the content of water (the cheapest ingredient of such a sirup), the adoption of the proposal might result in abuses from the addition of water. The weight of dry cacao ingredients increased by 50 percent of such weight for additional sweetening agents should furnish a reasonable allowance for calculating a normal reduction in milk fat and milk solids from the use of cacao products to flavor a kind of ice cream. The characterizing and sweetening ingredients specified in finding 25 replace other sweetening agents and do not lower the fat content of the mix. (See page references under findings 16, 17, 19, 20, 21, 22, 23, 24, 25, 26, 27, and 28; also R. 440A, 786–788, 524–525, 566–568, 3399–3404, 5953–5954, 5970–5972, 6021–6022, 6062–6066, 6186–6189, 6239, 6254–6257, 6506–6508, 7419–7423, 11624–11625; Govt. Ex. 4)

46. Although there was no evidence of the use of insufficient nonfat milk solids in ice cream, attention was called to the possibility that abuses in this respect might arise unless a minimum nonfat milk solids content is required. When the fat content is low (8 percent to 10 percent), it is customary to use 10 percent to 12 percent of nonfat milk solids. In high-fat ice cream the content of nonfat milk solids is lower. A requirement that the total milk solids content of ice cream be not less than 20 percent will provide a means for insuring adequate quantities of nonfat milk solids in proportion to the milk fat content. (R. 50, 681, 1717–1722, 1725–1726, 1745, 1753–1756, 1766–1767, 1771–1773, 1804–1805, 1824; OPEx. 15; see also finding 44)

47. When ice cream mix is frozen, air is whipped in and the volume of finished ice cream is greater than the volume of the original mix. This increase in volume is known in the trade as overrun. The amount of overrun depends on the vigor and duration of whipping, the kind of freezer, the temperature of freezing, and the composition of the mix. A cer-

tain amount of overrun is necessary to give ice cream some of its characteristic properties, but ice cream can be excessively inflated and thus cheapened, since it is commonly sold by volume. As the amount of air is increased the weight of a given volume of the ice cream decreases. In manufacturing ice cream it is practicable to control the quantity of overrun with either of the two types of freezers in general use; that is, the batch type and the continuous type. Most of the State standards limit the overrun by establishing a minimum weight per gallon for the finished ice cream or by other provisions. An overrun of more than approximately 100 percent is excessive. A requirement that the weight of ice cream be not less than 4.5 pounds per gallon, coupled with a minimum limit on solids per gallon (see finding 48), permits an overrun of about 100 percent, is effective in preventing the excessive incorporation of air, and is reasonable. (R. 60–62, 85, 443B–443C, 448–449, 765–768, 771–776, 2229, 4914, 10626–10627; Govt. Ex. 4)

48. Excessive water in ice cream mix dilutes its solids content and cheapens the product. A reasonable limitation against excessive dilution is a requirement that the solids content be not less than 1.6 pounds per gallon of finished ice cream. Such a requirement also serves as a desirable adjunct to the method of controlling overrun referred to in finding 47, since it allows higher overrun in the case of higher solids content and restricts overrun in the case of lower solids content. (R. 29, 60–61, 448, 525; Govt. Ex. 4)

49. Frozen custard, french ice cream, and french custard ice cream are common and usual names for the food that is identical with ice cream, except that it contains eggs or egg yolk in such quantity that the egg yolk solids are not less than 1.4 percent of the weight of the finished food. Findings 1 through 48 on ice cream, except that part of finding 1 on the name "ice cream" and that part of finding 29 limiting the egg-yolk solids content of ice cream, are applicable to frozen custard. It is reasonable to provide that the minimum quantity of egg yolks solids prescribed for frozen custard or french ice cream may be lowered when bulky ingredients are used to characterize such foods, in the same manner as provided for lowering fat content in ice cream. (See page references under finding 29; also R. 523–524, 569; Govt. Ex. 4)

50. A frozen product closely resembling ice cream but containing less milk fat than ice cream is defined by the laws of several States. In 1941, the laws of 14 States defined such a product as "imitation ice cream," and 10 of these States prohibited the sale of imitation ice cream. Twelve States had laws which, among other things, defined a frozen milk product containing less milk fat than ice cream as "ice milk." These laws prescribed restrictions designed to prevent deception of purchasers through the sale of ice milk. Investigation in 1941 of local sales of ice milk showed that ice milk could be easily passed off as ice cream.

Since 1941, the sale of frozen products resembling ice cream but having less milk fat has increased, and additional States have defined such a product as "ice milk." A substantial proportion of the sales of this low-fat product is a product sold direct from the freezer and often referred to as "soft ice cream" to differentiate it from ice cream that has been hard-frozen by holding at around 0° F. after being withdrawn from the freezer. A large part of this soft-frozen low-fat product is sold from roadside stands that advertise their products under fanciful names. In States having laws requiring it, such stands display signs reading "Ice milk sold here." In several States the low-fat product is sold under fanciful names, without restrictions.

In addition to a low-fat product (soft- or hard-frozen) sold direct to consumers, there is considerable traffic in a low-fat hard-frozen product used as a component of a semifrozen food sold at soda fountains. This is often unflavored. It seems probable that many consumers expecting ice cream as a component of fanciful soda-fountain foods receive the lower fat product instead of ice cream as an ingredient of such foods.

The International Association of Ice Cream Manufacturers proposed that a definition and standard of identity for ice milk be adopted, although members of the Association in some States are opposed to the legal recognition of such a food. Many members of the Association manufacture both ice cream and ice milk. Although recognizing that the problems of regulating the sale of ice milk, to prevent its being sold as ice cream at retail, cannot be solved by the adoption of a standard for ice milk under the Federal Food, Drug, and Cosmetic Act, the various interests wishing to promote the sale of ice milk all seemed to believe that a Federal standard is desirable, probably because they believe that such a standard would be adopted by most of the States the laws of which now make it illegal to sell ice milk.

The interests of the large wholesale manufacturers and of the operators selling soft-frozen ice milk from the freezer diverge somewhat. The International Association of Ice Cream Manufacturers proposed the following standard for ice milk:

§ 20.5 *Ice milk; identity.* Ice milk is the food prepared from the ingredients prescribed in § 20.1 for ice cream. The kind and quantity of optional dairy ingredients used, and the content of milk and nonfat milk solids therein, are such that the weight of milk fat is not less than 2 percent but not more than 3.5 percent of the weight of the finished ice milk and the weight of milk-solids-not-fat is not less than 11 percent. Ice milk contains not less than 1.3 pounds of food solids per gallon and weighs not less than 4.5 pounds per gallon. In all other respects ice milk conforms to the definition and standard of identity prescribed for ice cream under § 20.1 except that no provision for permissive reduction of milk fat shall apply regardless of the presence of one or more of the optional ingredients indicated in subparagraphs (3) to (8) inclusive of § 20.1 (a).

When ice milk is packaged in containers of greater than one pint in content, it does not contain color nor does it contain any of the optional ingredients indicated in subparagraphs (1) to (9) inclusive of § 20.1 (a).

A somewhat different standard was advocated by operators of retail stores selling a low-fat frozen-milk product under the name "Dairy Queen." Their proposal was as follows:

Ice milk is the food prepared from the ingredients prescribed in § 20.1 for ice cream. The kind and quantity of optional dairy ingredients used, and the content of milk and non-fat milk solids therein, are such that the weight of milk fat is not less than 2 percent but not more than the lowest limits of ice cream by weight of finished ice milk. The weight of total milk solids is not less than 11 percent. Ice milk contains not less than 1.3 pounds of food solids per gallon and weighs not less than 4.5 pounds per gallon. In all other respects, ice milk conforms to the definition and standard of identity prescribed for ice cream under § 20.1.

Ice cream manufacturers in Pennsylvania, New Jersey, and New York, where the sale of low-fat frozen products resembling ice cream has been illegal under State laws, opposed the adoption of a definition and standard of identity for ice milk. It was shown that such a product is easily mistaken for ice cream.

It is concluded that the likelihood of correcting abuses in the sale of low-fat frozen products resembling ice cream by failing to adopt a standard for ice milk under the Federal Food, Drug, and Cosmetic Act is remote. The interest of consumers will be better served by giving the accurately descriptive name "ice milk" to such a product. The proposal to prohibit flavoring in ice milk packed in containers larger than a pint does not appear likely to correct suggested abuses in connection with the use of ice milk in preparing soda-fountain drinks, but rather to approve such use. With the minimum fat content of ice cream in a standard under the Federal Food, Drug, and Cosmetic Act fixed at 10 percent, a maximum fat content for ice milk that should differentiate ice milk from ice cream is 7 percent. The other limits suggested by the two major interested industries appear reasonable. Where coloring is used so as not to mislead consumers concerning the presence or amount of some other ingredient in the food it is reasonable for the standard of identity to permit coloring as an optional ingredient in ice milk. The Federal Food, Drug, and Cosmetic Act requires food (with exceptions not here applicable) containing artificial coloring to bear labeling stating that fact. (R. 22, 68, 75–76, 89, 551, 2508–2511, 2513–2514, 2983–2988, 3000, 3037–3039, 3086–3096, 3325–3338, 3531–3556, 3576–3588, 3700–3704, 3722–3725, 3775–3786, 3791, 3835–3836, 3900–3904, 3908–3923, 3925–3954, 3955–3969, 3970–3993, 4000–4005, 4007–4111,

4139–4140, 5141–5145, 5245–5248, 5252, 5287–5297, 5328, 5341–5350, 5473–5482, 5959, 6228–6229, 7263, 7333–7337, 7345–7418, 7462–7468, 7498, 7506–7530, 7544–7554, 7566–7578, 7616–7625, 7632, 7650, 7665–7712, 7714–7726, 7729–7734, 7883–7894, 7898–7969, 7974–8019, 8031–8065, 8080–8085, 8109–8153, 8198–8221, 8245–8246, 8260–8300, 8337–8552, 8562–8645, 8648–8762, 8766–8828, 8881–8907, 8915–8917, 8925–9070, 9075–9195, 9197–9247, 9278–9308, 9332–9337, 9668, 9740–9741, 9847–9849, 9896–9898, 10341–10346, 10617, 10637–10640, 10662–10665, 10741–10743, 10847–10849, 11947–11948, 21059–21060, 21079–21082, 21346–21348, 21429–21461, 21499–21500; Ex. 62–63, 66–70; Govt. Ex. 15, 26, 27; OPEx. 98, 99, 101, 102, 105)

51. Sherbet is a frozen food having a number of characteristics that distinguish it from ice cream. The most outstanding characteristics of ice cream, even of the fruit types, are the smoothness, texture, and richness in taste and the food values arising from a relatively high content of milk fat and nonfat milk solids; whereas, the principal characteristic of most sherbet arises from its content of fruit or fruit juice. Sherbet contains milk-constituent solids, but in quantities much less than does ice cream, and these solids usually serve to impart to the frozen food no more than a slightly milky (not creamy) taste. Most States have standards or regulations limiting the milk fat and milk solids and requiring some acidity in sherbets, so as to enable consumers to distinguish sherbets from ice cream and ice milk. (R. 21–22, 69–70, 88, 398, 410, 443B, 530, 2504–2506, 4211, 4278–4279, 4834, 4914–4915, 5146–5147, 5249, 13064–13089, 13107–13152, 13159–13163, 21349–21368; Ex. 183, 184, 185, 188)

52. There are other significant differences between ice cream and sherbet. Sherbet has a tarter taste, due to its fruit content or to added acid or both; it is usually somewhat sweeter than ice cream, lower in total solids, and of somewhat coarser texture. (R. 22, 69–70, 203, 209, 398, 530, 1961, 2524, 4186, 4196, 4212, 4223–4224, 4291–4292, 4834)

53. Small quantities of frozen foods that contain no fruit or fruit juice but that are characterized by mint, wine, chocolate, vanilla, tea, coffee, spices, ginger ale, or pistachio have at times been sold as sherbets. Some of these are not acidulated and do not have the characteristic tartness of sherbet. Such products can be made to resemble ice cream or ice milk; and to the extent that they are so made they tend toward deception of consumers. The name "sherbet" so generally implies a frozen food of fruity characteristics that it is likely to be misleading when applied to a nonfruity food. Such so-called sherbets containing no fruit nor fruit juice are very similar to ice milk, and it is concluded that they should comply with the standard for ice milk. (R. 72, 411–412, 4219, 4238, 4241–4244, 4249, 4257, 4304, 4834, 4914–4915, 5146–5147, 5249)

54. The findings with respect to the preparation of fruits for use in ice cream are applicable to fruits for use in sherbets. Screened or crushed tomato and rhubarb may be considered as fruits when used to characterize sherbets. The quantity of fruit used in sherbets by wholesale manufacturers varies widely. The International Association of Ice Cream Manufacturers proposed as minimum limits for fruit in sherbets: 2 percent, including the peel, in the case of citrus sherbets; 6 percent in the case of berry sherbets; and 10 percent in the case of other sherbets. Such limits will serve some useful purposes in the consumer's interest. The International Association of Ice Cream Manufacturers also proposed, however, that in addition to fruit there might be used in sherbets natural food flavoring derived from fruit and artificial flavor that imparts or simulates a fruit flavor.

Except in the case of citrus fruits where the oils in the peel are suitable for use in flavoring sherbets, the evidence was not convincing that so-called "natural food flavoring derived from fruit" was really what it purported to be. Most such flavorings contain materials derived from sources other than the fruit the name of which they bear. With fruits (other than citrus fruits with peel), it can be concluded that if a sufficient quantity of a fruit is incorporated in a sherbet a certain flavor will be imparted to the sherbet; and if this same quantity of fruit is used for preparing a flavor without addition of other flavorings and such flavor is used to characterize the same quantity of sherbet, the sherbet will not have a more pronounced fruit flavor than if the fruit itself were used, the cost of flavoring the sherbet will likely be greater, and constituents of the fruit will be lost in extracting the flavor. Sherbets should be characterized by fruit or fruit juice. At present, many manufacturers of sherbets add flavoring and artificial flavoring to enhance the flavor imparted by the actual fruit or fruit juice present. To add such flavoring to sherbets containing the relatively small quantities of fruit specified in standards proposed by the International Association of Ice Cream Manufacturers would encourage rather than correct a cause of consumer dissatisfaction, that is, substitution of artificial flavor for fruit. (R. 70–71, 270–271, 411, 417–418, 530, 543, 1960, 2504–2507, 2517–2518, 3031–3035, 4189–4190, 4192–4195, 4219, 4221–4222, 4246, 4261–4262, 4278–4279, 4289, 4295, 4303, 4336–4337, 4372, 4507, 5146–5147, 5917–5918, 5924–5931, 5972–5975, 6192, 6218–6223, 6243–6246, 6259–6266, 7426–7431, 9827–9828, 9849–9850, 11881–11882, 12785–12795, 12805–12876, 12904–12955; Ex. 180, 181.)

55. Sherbet is frequently referred to as "milk sherbet," and this designation is used in many State laws defining the product. Some of the essential characteristics of fruit sherbet are imparted to it by its content of milk fat and nonfat milk solids. The milk-constituent solids of fruit sherbet are ordinarily obtained by adding unflavored ice cream mix, with or without one or more of the dairy products specified in finding 3 as suitable for use in making ice cream. Sometimes milk is used alone or in combination with other dairy products. All the dairy ingredients found suitable for use in ice cream are also suitable for use in fruit sherbet, but the use of skim milk in any of its forms as the sole dairy ingredient would tend to mislead consumers. Cheese whey may be used, but the substitution of cheese whey (liquid, concentrated, or dried) for all or a substantial part of the nonfat milk solids forming a part of the prescribed milk component of sherbet changes the identity of this component and, to some extent, the identity of the sherbet. Such sherbets containing whey solids should be properly designated. (R. 70, 72, 400–402, 440, 443A, 530, 4186–4187, 4214, 4286)

56. The quantity of milk-constituent solids necessary to characterize fruit sherbet is at least 2 percent by weight of the finished product. More than 5 percent of such solids tends to make the product resemble ice cream or ice milk, as does a quantity of milk fat above 2 percent. Maxima of not more than 5 percent total milk-constituent solids and not more than 2 percent milk fat and minima of not less than 2 percent total milk-constituent solids and not less than 1 percent milk fat are reasonable limits to characterize fruit sherbet and to differentiate it from ice cream and water ice. (R. 440A, 4188, 4215–4217, 4236, 4281–4282, 4371–4372)

57. The sweetening agents that are used and are suitable for use in fruit sherbet are sugar, dextrose, invert sugar (as paste or sirup), corn sirup, glucose sirup, malt sirup, maltose sirup, and malt extract. The solids of such sirup and extract are also suitable for sweetening fruit sherbets. (R. 1786–1787, 1820, 1838, 1858, 1917, 1971, 4286)

58. Finding 30 is, in general, applicable to fruit sherbets, except that there is evidence indicating the use and suitability of egg white as a stabilizer for fruit sherbet. Pectin, in a quantity not more than 0.5 percent by weight, is also suitable for use for this purpose. (R. 70, 88, 439, 530, 2417, 2420–2421, 2430–2431, 2441, 2459–2460, 2478–2479, 2502, 4218, 4282–4285)

59. Most State laws defining sherbet are designed to prevent its manufacture in simulation of ice cream. One requirement of many such laws is that the acidity of the product be not less than 0.35 percent, calculated as lactic acid. The acidity of fruit sherbets averages about 0.5 percent to 0.6 percent. A minimum of 0.35 percent acidity, calculated as lactic acid, is a reasonable limit for fruit sherbet. (R. 22, 71–72, 2903–2904, 4257)

60. To reach the desired acidity, harmless acids may be added, in addition to fruit or fruit juice. Those generally used and suitable for use are citric, tartaric, lactic, and malic. Ascorbic acid is often an ingredient of the frozen fruit used. (R. 202–203, 207, 1978, 2006, 4197, 4223–4224, 4291–4292)

61. Salt and eggs or egg yolks are sometimes present in fruit sherbet as a result of the use of ice cream mix in its preparation. The quantity of egg yolk solids thus introduced is less than one-half of 1 percent. (R. 70, 400, 4211)

62. Much fruit sherbet is colored. When so used that they do not create a misleading impression as to the quantity of fruit or fruit juice present, color-

ings are suitable ingredients of fruit sherbet. The Federal Food, Drug, and Cosmetic Act requires food (with exceptions not here applicable) containing artificial coloring to bear labeling stating that fact. (R. 70, 1960, 2504–2506, 4200, 4211, 4251)

63. The dairy ingredient of fruit sherbet is pasteurized and may be homogenized, either before or after addition to the fruit sherbet mix. Pasteurization of the dairy ingredient separately or pasteurization of the entire mix is generally recognized as an essential step in the preparation of commercial fruit sherbet, and consumers expect the protection from milk-borne diseases afforded by pasteurization. (R. 72, 214, 398, 401)

64. The normal overrun in fruit sherbet is less than in ice cream. A requirement that the weight of fruit sherbet be not less than 6 pounds per gallon is effective in preventing the excessive incorporation of air and is a reasonable limit. (R. 69, 72, 449, 4278, 4290, 4386)

65. It is concluded that the name that should be prescribed for each kind of fruit sherbet is the word "sherbet," preceded by the common or usual name of the fruit from which the fruit ingredient used is obtained, except that when whey is used as a part of the dairy ingredient the name should be "_____ whey sherbet," the blank being filled in with the name of the fruit used. (Conclusions from previous findings.)

66. Most of the commercially produced water ices are characterized by their fruity flavor and are of the same composition as the correspondingly flavored commercial fruit sherbets, except that no dairy ingredient is used in water ice. Some nonfruity-type water ices are produced, but the record contains insufficient evidence to determine what the composition and characteristics of each of such various products should be (R. 72–73, 398–399, 4237, 4278, 4363–4365, 21368–21374)

67. Findings 30, 54, 57, and 58 are applicable to fruity-type water ice. (R. 72–73, 401)

68. To obtain the desired tartness, the acids specified in finding 60 are frequently used and are suitable for use in fruity-type water ice. (R. 72–73, 212, 1234–1235)

69. Findings 62 and 64 are also applicable to fruity-type water ice. (R. 72–73, 89, 1234, 1235)

70. The common and usual name of each kind of fruity-type water ice is the word "ice," preceded by the common or usual name of the fruit from which the fruit ingredient used is obtained. (R. 73, 453)

71. There are other frozen foods that differ from ice cream, fruit sherbet, and fruit-type water ice. They are not sold under these names, but usually are referred to collectively as frozen confections. A proposal was advanced that a definition and standard of identity be prescribed for these articles under the name "frozen confections." The composition and characteristics of these articles are so varied that no blanket requirement sufficiently definitive to be of substantial significance to consumers is practicable. (R. 552, 553, 563, 597–598, 5163)

72. There was a limited amount of testimony showing that in some parts of the country there were being sold frozen products resembling ice cream in taste and appearance but differing from ice cream in that instead of milk fat they contained a vegetable fat. Such products were designated with fanciful names. No proposal was made to include vegetable fats as optional ingredients of ice cream or to adopt a definition and standard of identity for frozen foods resembling ice cream but in which a vegetable fat was used instead of milk fat. (R. 10339–10341, 10348, 10350, 21411, 21416–21417, 21419–21428, 21487–21489)

73. Testimony at the first phase of these hearings in 1942 indicated that a recent development in the manufacture of ice cream was the addition of a surface-active agent to the stabilizing ingredient. This new ingredient was often called an emulsifier or emulsifying agent. At this time, the only combination of stabilizer and surface-active agent described was a mixture of mono- and diglycerides of fat-forming fatty acids and gelatin. No evidence explaining the effect of mono- and diglycerides alone on the properties of ice cream was presented. (R. 6382–6386, 10166–10168, 10308)

74. Since 1942, there has been an increase in the number of surface-active agents used in the manufacture of ice cream. There was voluminous testimony in the later hearings in support of proposals to make surface-active agents optional ingredients. This was to the effect that the use in ice cream mix of from 0.1 to 0.2 percent of surface-active agents caused ice cream to come from the freezers in a slightly stiffer and "drier" state. The properties of ice cream to which manufacturers apply the terms "wet" and "dry" are difficult to describe and apparently difficult to measure objectively, but some objective tests designed to show the effect of surface-active agents were described and the results reported. These suggested that surface-active agents might cause the homogenization of the mix to be more effective by aiding in the division of the fat into minute particles. Some possible shortening of the time required for freezing was indicated, but without more data that would permit a statistical evaluation of the differences no definite conclusions can be drawn from these experiments. The testimony is confused concerning whether any changes in ice cream by reason of the use of surface-active agents are likely to be recognized by consumers. Surface-active agents are said to aid in producing smoother ice cream. Smoothness is a property recognized by consumers and associated with richness, and surface-active agents may give the impression that ice cream is richer than it really is. Surface-active agents also are said to have an effect on the physical properties of ice milk and sherbet, but not to the same extent as on the physical properties of ice cream. (R. 6027–6036, 6041–6043, 6077–6120, 6248–6249, 6382–6386, 6488–6492, 6521–6525, 6579–6584, 6586, 6868, 7317–7321, 8105–8108, 9489–9498, 9542–9544, 9563, 9591, 9598–9600, 9603, 9617–9618, 9654–9655, 9737–9738, 9768, 9771–9772, 9815–9816, 9819–9820, 9834–9835, 9854, 9858–9864, 10133–10139, 10144–10147, 10150–10152, 10166–10168, 10250–10332, 10338–10339, 10359–10368, 10384–10388, 10403–10406, 10473–10507, 10518–10535, 10559–10575, 10586–10597, 10606–10609, 10631–10637, 10655–10656, 10668–10690, 10727–10731, 10733–10734, 10744–10745, 10763, 11009–11021, 11034–11037, 11039–11043, 11057–11058, 11071–11095, 11686–11689, 16112–16125; Ex. 5, 97–104)

75. Several types of synthetically prepared surface-active agents are used in stabilizing preparations sold to ice cream manufacturers and are thus incorporated into ice cream, ice milk, sherbets, etc. A few ice cream manufacturers buy surface-active agents directly from the primary manufacturers. Of the various classes of these chemicals only mono- and diglycerides of fat-forming fatty acids have previously been accepted as food ingredients. The other surface-active agents are substances in which a commercial fatty acid is combined with a polyhydric alcohol other than glycerin. These polyhydric alcohols are synthetic substances that the human body does not utilize as food. The pharmacological properties of such surface-active agents cannot be predicted from their chemical composition, but their chemical composition draws their pharmacology into question. There was a large amount of testimony about the composition and properties of several surface-active agents manufactured by the Atlas Powder Company. Similar (if not identical) preparations are to some extent manufactured, or may at any time be manufactured, by other companies. Since most of the testimony about surface-active agents referred to them by their trade names, and since such products though similar may not be identical in composition, their trade names will be used here. A description of the methods of preparation and probable chemical composition of most of the substances referred to by trade names was furnished by their manufacturers. Other than to their manufacturers, however, the composition of the various surface-active agents was unknown, and often these manufacturers themselves have reliable information only as to the process of manufacture and not as to exact chemical identity. The methods of preparation and something of the chemical composition of various surface-active agents proposed as optional ingredients are summarized below:

Mono- and diglycerides of fat-forming fatty acids. These preparations usually consist of mixtures of monoglycerides and diglycerides and some unchanged triglycerides in about the proportion of 40 parts of monoglycerides, 40 parts of diglycerides, and 20 parts of a mixture of unreacted triglycerides and glycerin. Such a product is usually made by heating a fatty substance such as lard or cottonseed oil (either of which may be hydrogenated) with glycerin, in the presence of a small amount of an alkali. Similar preparations containing larger proportions of the monoglycerides (sometimes as high as 90 percent) are sold under special names. Preparations containing more than 40 percent monoglycerides are usually made by a reaction

between a fatty acid and glycerin. High concentrations of monoglycerides may be obtained by distillation. The monoglyceride is more effective as a surface-active agent than the diglyceride. (R. 6381–6383, 6385–6386, 10158, 13566–13585, 16699–16705, 16726–16755, 16777–16781)

Aldo 33. Aldo 33 is the trade name applied by Glyco Products Company to a mixture of mono- and diglycerides prepared from a reaction between hydrogenated lard and glycerin. Presumably an alkaline catalyst is used. Details of the method of preparation were not furnished. (R. 10778, 10785–10786)

S 1096. S 1096 is the trade designation applied by Glyco Products Company to a substance said to consist substantially of glyceryl monooleate. Details of the method of preparation were not furnished. (R. 10778, 10787)

S 1097. S 1097 is the trade designation applied by Glyco Products Company to a product similar to S 1096, except that it was said to contain from 4 percent to 5 percent of potassium oleate. Details of the method of preparation were not furnished. (R. 10788, 10789)

Drew Mulse ME. Drew Mulse ME is the trade name applied by E. F. Drew Company to a substance said to be a glyceride containing 1 mol of stearic acid and 2 mols of lactic acid. It was said to be made by heating under vacuum a mixture of tristearin with glycerin and lactic acid or by heating a mixture of glycerin and stearic acid and lactic acid under vacuum until all fatty acid is combined. (R. 11050–11090, 11062–11064)

Glyceryl Monostearate (Drew). This was said to be a mixture of mono- and diglycerides manufactured by the E. F. Drew Company and referred to as glyceryl monostearate. (R. 11067)

Span 60. Span 60 is the Atlas trade name for a substance prepared by a reaction, under controlled conditions, between sorbitol and commercial stearic acid. The crude product is deodorized and bleached.

Span 60 is said to consist mainly of sorbitan (sorbitol less 1 mol of water) monostearate. Upon saponification with an alkali, it will yield approximately 74 percent of fatty acids and 31 percent of polyhydric residue having a hydroxyl value in the range of 1,200 to 1,300.

Span 60 is a tan-colored, hard, waxy solid melting in the range of 49° C. to 56° C. It is insoluble in water but dispersible in warm water above its melting point. The manufacturing specifications for Span 60 are:

Acid number: 10 maximum.
Saponification number: 150–165.
Hydroxyl number: 235–265.

The water content should not be above 1 percent. There is some ash present, but no data on quantity were furnished. In the bleaching process there is a small amount of mineral acid present, so that any soap that may be present is converted to fatty acid and an inorganic salt; and since this salt is insoluble in the ester, the filtration step (when used in preparing Span 60) tends to remove ash-forming substances. (R. 13837–13840, 16074)

Tween 60. Tween 60 is Atlas's trade name for a substance prepared by reaction, under controlled conditions, between Span 60 and ethylene oxide. The reaction is planned to add 20 mols of ethylene oxide to 1 mol of Span 60. The reaction product is deodorized by steam. It is bleached with hydrogen peroxide at 100° C. and is filtered.

Tween 60 is a yellow- to orange-colored, oily liquid or semigel, that is completely soluble in water. It contains approximately 67 percent oxyethylene units. Upon saponification with alkali it will yield approximately 25 percent of fatty acids and approximately 71 percent of polyhydric residue having a hydroxyl value of approximately 180 and an oxyethylene content of approximately 86 percent. The manufacturing specifications for Tween 60 call for:

Acid number: Not over 2.
Hydroxyl value: 80–100, inclusive.
Saponification number: 45–60, inclusive.
Water content: 2½ percent to 3 percent.

(R. 13842–13848)

Tween 65. Tween 65 is Atlas' trade name for a substance prepared by a reaction, under controlled conditions, between sorbitan tristearate and ethylene oxide. The reaction is planned to add 20 mols of ethylene oxide to 1 mol of sorbitan tristearate. Methods of purification were not specifically described but are presumably the same as used with Tween 60.

Tween 65 is a yellow-colored, waxy solid, insoluble in water but dispersible in warm water. It melts in the range of 27° C. to 31° C. It contains approximately 48 percent of oxyethylene units. Upon saponification with an alkali it will yield approximately 45 percent of fatty acids and 58 percent of a polyhydric residue having a hydroxyl value of approximately 250 and an oxyethylene content of approximately 83 percent. The manufacturing specifications for Tween 65 call for:

Acid number: Not over 2.
Hydroxyl number: 45–55, inclusive.
Saponification number: 90–105, inclusive.
Water content: 2½ percent to 3 percent.

(R. 13845–13848)

Tween 80. Tween 80 is Atlas's trade name for a substance prepared by a reaction, under controlled conditions, between Span 80 (sorbitan monooleate) and ethylene oxide. The reaction is planned to add 20 mols of ethylene oxide to 1 mol of Span 80. The details of the method of manufacture are not described in the record.

Tween 80 is a lemon-colored, oily liquid having a viscosity of 300 to 475 centipoises at 25° C. It is completely soluble in water. It contains approximately 67 percent of oxyethylene units. Upon saponification with an alkali, it will yield approximately 25 percent of fatty acids and 77 percent of polyhydric residue having a hydroxyl value of approximately 160 and an oxyethylene content of approximately 87 percent. The manufacturing specifications for Tween 80 call for:

Acid number: Not over 2.
Hydroxyl number: 68–83, inclusive.
Saponification number: 45–60, inclusive.
Water content: 2½ percent to 3 percent.

(R. 13845–13847)

Spans. Span 60 and the other compounds grouped under the class name of Spans are not chemical entities but each is a mixture of several compounds. For example, Span 60 will contain some unreacted sorbitol or sorbitol anhydrides or both, some unreacted fatty acids, reaction products of catalysts and fatty acids, and esters of varying degrees of dehydration and fatty-acid content. The fatty acids will consist mainly of one acid, but appreciable amounts of related fatty acids will be present. The commercial grade fatty acids commonly used will also introduce some unsaponifiable matter from the fats from which they are prepared. There are some sorbite (sorbitol less 2 mols of water) esters as well as sorbitan esters and some di- and tri-esters. Spans contain small quantities of moisture and some ash. The ash results from neutralization of the alkaline catalysts that are not entirely removed in the manufacturing process. Spans may also contain traces of nickel used as a catalyst in preparing sorbitol. Whether Spans may at times contain some reducing sugars is not entirely clear. There is no analytical method available at the present time for accurately identifying the polyol portions of Span compounds and no method for detecting Spans in ice cream. (R. 13846, 16067, 16076–16078)

Tweens. The compounds grouped under the class designation of Tweens are not chemical entities but are mixtures of several compounds. Since they are prepared by reactions between Spans and ethylene oxide, they contain the various substances present in Spans as modified by reactions with ethylene oxide. The ethylene oxide does not react with a Span to form a compound containing a definite number of mols of ethylene oxide, but forms a range of compounds of varying molecular weights having, on the average, for the Tween compounds with which we are concerned, 20 mols of ethylene oxide to 1 mol of the Span used. When small quantities of water are present in the Spans used for making Tweens, this water will react with ethylene oxide to form glycols, including ethylene glycol and diethylene glycol. There are probably small quantities of unreacted ethylene oxide in the crude Tween-type compound before deodorization and bleaching. This is said to be removed before steam is applied. If not all removed, it probably reacts with steam to form ethylene glycol, diethylene glycol, etc.

The polyol portions of different Tween-type compounds are not identical. The actual chemical structure of the polyols of Tween-type compounds is not known to chemists of the Atlas Powder Company. No satisfactory data concerning possible presence of ethylene glycol and diethylene glycol in Tween-type compounds were furnished.

Tween-type compounds can be separated from ice cream in an impure state and the quantity of oxyethylene determined in the products removed. This procedure would not distinguish one Tween from another or distinguish a Tween-type compound from a Myrj-type compound, which would also be removed,

if present, by the procedure used for separating Tweens. (R. 13846, 16079–16085, 16089–16091)

Myrj 52. Myrj 52 is Atlas' trade name for a substance prepared by a reaction, under controlled conditions, between commercial stearic acid and ethylene oxide. The reaction is planned to add 40 mols of ethylene oxide to 1 mol of stearic acid. The reaction product is deodorized with steam and bleached with hydrogen peroxide at 100° C.

Myrj 52 is a hard, brittle, waxy solid melting in the range of 42° C. to 47° C. It contains approximately 85 percent of oxyethylene units. Upon saponification with alkali it yields approximately 15 percent of fatty acid and 86 percent of polyhydric residue containing 99 percent oxyethylene and having a hydroxyl value of about 70. The manufacturing specifications for Myrj 52 call for:

Acid number: Not over 2.
Hydroxyl number: 25–45, inclusive.
Saponification number: 25–35.
Water content: Not given.

Myrj 52 contains some free fatty acid. What becomes of the unreacted ethylene oxide that may remain after termination of the reaction with stearic acid is not clear. Small amounts of ethylene glycol or diethylene glycol may get into the product from this and possibly other sources. The stearic acid used carries some impurities into the Myrj 52, including unsaponifiable matter in the fat from which the stearic acid was prepared. Although the theoretical composition of Myrj 52 calls for 40 mols of ethylene oxide, examination of an actual sample of the product indicated about 36 mols. (R. 13851, 16098, 16100, 17150–17154)

Myrj 45. Myrj 45 is the trade name applied by the Atlas Powder Company to a substance somewhat similar to Myrj 52 but containing 8 mols of ethylene oxide to 1 mol of commercial stearic acid. (R. 13967)

Emulgent 45 and 52. Emulgent 45 and 52 are trade names applied by the General Emulsifier Corporation to substances prepared for them which should be about the same products as Myrj 45 and 52. (R. 13965–13968)

E–4CS. E4CS is the trade designation applied by Process Chemicals Company to a substance prepared, under control conditions, by a reaction between polyethylene glycol 400–W and commercial stearic acid. The reaction is planned to give an end product consisting of a monostearate of the polyethylene glycol. The final products of reaction contain some uncombined reactants and impurities present in the starting materials. The testimony indicates the likelihood that the glycol used contains small quantities of ethylene glycol and diethylene glycol. The possibility that the glycol used may contain impurities consisting of products similar to aldehydes is suggested. (R. 9776–9809)

PEG 42. PEG 42 is the name applied by Glyco Products Company to a substance formed by a reaction of stearic acid with a polyethylene glycol or mixture of such glycols known by the trade name Carbowax 1500. A substance referred to as gray phosphoric acid was said to be used as a catalyst. Conditions for controlling the reaction were not described. (R. 10795–10803)

S 1109, S 1193. S 1109 and S 1193 are designations applied by Glyco Products Company to substances said to be formed by a reaction between polyethylene glycol 400–W and glyceryl trioleate. The term "glyceryl trioleate" was used to describe an oil such as cottonseed oil or corn oil. The reaction is said to be catalyzed by a small amount of potassium hydroxide. Conditions necessary to bring about a reaction between these products were not described nor was there a satisfactory explanation of what substances are present after the reaction is completed. (R. 10780, 10799, 10804–10808)

Dri Freeze. Dri Freeze is the trade name applied by the E. F. Drew Company to a substance said to be a monoester of 400 polyoxyethylene glycol and stearic acid. The glycol and stearic acid, in definite proportions, are said to be heated together under vacuum to cause a reaction between them to take place. No description of the method for removing any impurities was given. Presumably this substance is similar to Myrj 45 in composition, if the reaction takes place as planned. (R. 11079–11080)

The tests and constants proposed as a means of describing the polyhydric-alcohol-type emulsifiers are insufficient to definitely fix their identity. The tests and constants do not assure that all products so described are the same chemical entities or that they are comprised of the same relative proportions of the ingredients; nor do they assure consistent freedom from all pertinent impurities, whether produced by different manufacturers or produced at different times by the same manufacturer.

Analytical methods for the determination of polyhydric-alcohol emulsifiers in frozen desserts are not furnished.

Experimental Studies Relating to the Safety of Surface-Active Agents

76. The complex chemistry of the polyhydric-alcohol type of surface-active agents, their method of manufacture, the presence of impurities, and their relationship to substances known to be toxic all combine to draw into serious question the safety of these materials for use in foods so widely consumed in substantial quantities as are these frozen desserts. Indeed, this has been a problem for several years and has received the attention of outside scientific bodies as well as the Department of Health, Education, and Welfare. The record here is concerned to a very great extent with the evidence of experimental studies, both on laboratory animals and with human subjects, relied on by the proponents of these ingredients to establish their safety for use in frozen desserts. Precisely what was used in each such study is not established by the record because the manufacturers' specifications are not adequate to guarantee a preparation of reproducible and definite chemical identity.

ANIMAL STUDIES

Basic to the case for the surface-active agents of the polyhydric-alcohol type are the pharmacological studies of their behavior conducted over a period of years for Atlas Powder Company by Dr. John C. Krantz of the University of Maryland. These investigations, begun about 1943, were carried on while he pursued his regular duties at the School of Medicine. The tests on each substance, which the investigator identified by trade name, included, in general, a short-term feeding study on fast-growing rats and, later, a 2-year study on rats at a somewhat lower level of feeding of the test substances in the diet. Occasionally the test substances were fed to monkeys for short periods, but these tests were uncontrolled, involved too few animals, and could not be depended upon to demonstrate low levels of toxicity. Long-term (referred to as life-span) feeding tests were reported by Dr. Krantz with the following substances:

Substance	Length of test	Percentage of test substance in the total dry diet
	Years	
Span 60	2	5
Tween 60	2	2
Tween 65	2	2
Tween 80	2	2
Myrj 52	2	2

In the 2-year feeding of Span 60, no attempt was made to follow up certain indications of possible injury to a few of the rats. Evidence of sporadic liver and kidney injury was ascribed to causes other than the feeding of Span 60.

The 2-year feeding of Tween 60 at a level of 2 percent in the diet gave some indications of a possible deleterious effect, but this was classed by the investigator as unimportant or accidental and not attributable to Tween 60. There was some slight growth retardation in rats receiving the Tween 60; two rats showed hydronephrosis, two rats had low blood sugars, and two rats showed liver damage.

In the 2-year feeding tests with Tween 65 at a level of 2 percent, the investigator did not have the test animals under his close observation, and the records of this experiment contained several inconsistencies that were not explained.

The 2-year feeding tests on Tween 80 at a level of 2 percent developed tumor formations in two female rats. These were classed as of spontaneous formation, not connected with the feeding of Tween 80.

The 2-year feeding of Myrj 52 at a 2-percent level in the diet was carried out in New Jersey with only nominal supervision by Dr. Krantz. The number of surviving controls compared to animals receiving Myrj 52 indicated a considerably higher mortality among the animals receiving Myrj 52.

Blood tests of controls and of animals receiving Myrj 52 showed a higher cholesterol content in the blood of animals receiving Myrj 52 than in the controls. This difference was statistically significant.

The cross-examination, examination of the laboratory notebooks containing data for the 2-year experiments on Span 60, Tween 60, and Tween 80, and later testimony by a handwriting expert indicate that entries in the notebooks were

not made by laboratory assistants as the investigator thought. Whether all these entries were accurate cannot now be determined.

It is uncertain whether the methods used would find kidney or bladder stones, if they occurred in rats after feeding the various emulsifying substances.

In vitro experiments were performed to show whether Spans and Tweens were hydrolyzed by lipase. Some of these experiments were subject to criticism as to technique, but the results indicated some splitting of all these substances by the lipase used.

(R. 13375–13469, 14027–14035, 16131–16233, 17388–17535, 21798–21805; Ex. 204–211, 281–283)

Additional feeding experiments, by other investigators, with laboratory animals were conducted to test the effects of Span 60, Tween 60, Tween 65, and Myrj 52 on the animals' nutrition. Tests were made with adult dogs, basenji and beagle puppies, hamsters, and mice.

In the initial experiments on adult female dogs, 12 dogs were used, three being controls. Five percent and 15 percent of the test substances were added to the dogs' diets. The dogs were fed a basal ration of specially prepared canned dog food. It is doubtful whether Tween 60 was fed, as the one dog that was to receive it probably was fed Tween 65. The dogs on the test diets containing Tween 65 or Myrj 52 developed diarrhea, and various changes in the diets were made to see if there was a connection between the composition of the diet and the diarrhea, but the diarrhea was not adequately explained.

The dogs were not all started on the same diets and the feedings were not started at the same time, but generally the feedings of the test materials were continued for about a year and the animals then sacrificed and the organs examined by a veterinarian. During the course of the feedings, blood counts and urinalyses were made at intervals.

None of the dogs died during the tests; weight changes were not significant; three dogs on test diets of Myrj 52 and Tween 65 were found on sacrifice to have kidney stones. Dogs on the control diets were in better clinical condition throughout the experiment than dogs on test diets. This is possibly important, since the experiment was so performed that various specific indicia of effects of the test substances may have been overlooked or not recorded.

Ten male and eleven female puppies were employed as test animals. Some were fed control diets and others test diets containing Span 60, Tween 60, or Myrj 52. This control diet was a synthetic one consisting of casein, dextrose, dextrin, lard, salt mixture, agar, and water, with a vitamin supplement. The agar and water made a gel of this diet. Growth records were kept and blood cytology studies were made. The puppies did not develop diarrhea.

Although there was some indication of lower protein efficiency of the diet containing Myrj 52, the investigator thought there were too few animals involved to determine whether Myrj 52 interfered with protein metabolism, and the differences in rates of growth of the dogs were not thought to be significant. The number of animals on each diet was not large enough to justify drawing final conclusions.

Hamsters were fed synthetic diets to which Myrj 52 was added. The compositions of the basal diets were changed slightly from time to time. First a dry diet was fed, then a diet was made up to form an agar gel. The dry diet contained cellulose flour as a bulk former. The last diet was the agar-gel diet, with an increased quantity of vitamins. The animals receiving the dry diet with Myrj 52 developed diarrhea. There was some improvement with the agar-gel diets. The original laboratory records indicate that some of the hamsters on a dry diet to which Myrj 52 was added were injured. On the wet diet, even with increased vitamin intake, there was diarrhea. Many animals had a disease called soft spot. They may have been rendered more susceptible to this disease by the Myrj 52. Animals receiving Myrj 52 were reported as having symptoms of polyneuritis (thiamine deficiency). When the investigator was asked if he thought the Myjr 52 interfered with utilization of thiamine, he said that they had thought so at the time and that it is possible. The records of observations on the hamsters are confused by reference to the soft spot disease that may or may not have been responsible for the many adverse effects noted.

Feeding experiments with mice were conducted, using diets containing various quantities of Span 60, Tween 60, or Myrj 52. Little or no effect on growth was noted in these experiments. Not all the experiments made, however, were reported. The results of some experiments, concerning which information was developed during cross-examination, suggest the possibility of an increased tumor formation due to diets containing Span 60, Tween 60, or Myrj 52. On the whole, the mice experiments gave confused results and are complicated by deaths ascribed to middle ear infection.

(R. 13507–13547, 16235–16541, 16587–16676; Ex. 213–217)

Another investigator undertook feeding tests with Span 60, Tween 60, and Myrj 52 on the postulate that these substances in the diet of rats might affect the growth of microorganisms in the intestines and thus indirectly affect the status of the nutrition of the animals, as measured by rate of growth. Monoglyceride was also fed, but the results were characterized as confusing.

Weanling rats were fed a synthetic diet of casein, sugar, salt mixture, corn oil, and a vitamin mixture. Control groups were on the basal diet and other groups on the same basal diet, to which was added 10 percent of Span 60, Tween 60, or Myrj 52. In some instances, after a period of experimental feedings, dried liver was added to the diet. The rats on diets containing test substances showed growth retardation, and those receiving Tween 60 or Myrj 52 had unformed stools. While the investigator was unwilling to conclude that the test substance was responsible, he was not sure what did cause growth retardation.

A second series of feedings gave about the same results. Span 60, Tween 60, and Myrj 52 at 5 percent levels caused growth retardation on the synthetic diet. Most rats receiving Tween 60 or Myrj 52 had diarrhea; those on Span 60 did not have diarrhea. This indicated that the mechanism of interference with growth from Span 60 might be different from that of Tween 60 and Myrj 52.

The investigator searched for a simple diet to which the test substances could be added without causing diarrhea, postulating that if the diarrhea could be stopped the test animals would grow as well as the controls. He chose a diet consisting largely of soybean meal with added sucrose, corn oil, salt mixture, and vitamin supplement. The postulate was largely found to be true with Tween 60 and Myrj 52, but was not true of animals receiving Span 60.

Bulk-forming material was added to a diet to correct diarrhea and restore normal growth. When Myrj 52 and cellulose flour were fed to weanling rats on the basal casein diet for 5 weeks, there was little or no diarrhea, and test animals grew about as well as controls. However, rats on Span 60 receiving cellulose flour did not grow as well as controls. On a dry, powdered diet prepared from a mixture of human foods simulating the diet of several employees of the Atlas Powder Company, rats did not develop diarrhea. Nevertheless, the investigator had no satisfactory explanation of how the diarrhea observed in his tests might have been the cause of growth retardation.

Experiments were conducted with the functioning of the cholinesterase enzyme system as an indication of the status of nutrition of rats receiving Span 60, Tween 60, or monoglyceride. No reduction of cholinesterase activity was noted. However, no definite relationship was shown to exist between cholinesterase activity and nutrition. The rather wide variation in results of determinations of cholinesterase activity made it difficult to make comparisons that would have any significance.

The original records of most of this experimental work were not preserved, and observations made on conditions of animals during the course of the experiments were not available.

It cannot be concluded whether the original postulate—that the substances tested might affect intestinal flora and so, indirectly, nutrition status—was in whole or in part cofrect. It seems fairly well established that on one type of synthetic diet all three test substances caused retardation of growth, the mechanism of which is still unexplained, and that Span 60 produces a different physiological effect than Tween 60 and Myrj 52.

(R. 13220–13828, 14041–14053, 14420–14470, 14053–14227, 14333–14417, 14470–14839; Ex. 274, 274a, 284, 294–296)

Polyethylene glycols of different average molecular weights can be reacted with fatty acids to form esters, and the products E–4CS and PEG 42 described in

a previous finding are prepared in this manner. Their composition is similar to that of Myrj 45 and Emulgent 45.

At a hearing on standards of identity for various breads, there was testimony that polyethylene glycols of different molecular weights above and below 400 would not be suitable constituents of fatty-acid esters for use in bread, because of observed deleterious effects when such glycols were fed to rats. The same witness who has experimented with the polyethylene glycols over a period of years stated in that hearing that polyethylene glycol with an average molecular weight of 400 was harmless. There was evidence at the same hearing from a chemist in charge of manufacturing polyethylene glycols that polyethylene glycol 400 would perhaps contain about 0.2 percent ethylene glycol and diethylene glycol, and there was evidence that these ethylene and diethylene glycols are considered as poisonous substances. Diets containing 1 percent of a mixture of glycols, of which 29 percent was ethylene glycol, resulted in calculi in the bladders of 2 out of 14 male rats; whereas, 14 female rats had no calculi. In this hearing, however, the investigator stated that recent feeding tests on the same glycols, manufactured some years later than the batches from which the glycols used in tests reported at the bread hearing were obtained, did not show the same evidence of toxicity. This was ascribed to improvements in manufacturing procedure which presumably eliminated some impurity present in the products tested earlier.

No details of the improvements claimed were described, and the record does not establish what differences, if any, there are in the products tested. If the explanation is correct, it indicates that different production batches of the same emulsifier may have different pharmacological effects.

The diets used for rats in the early feeding tests described in the bread hearing were not identical with the diets used in the later experiments reported in the exhibits forming part of this record. Whether this difference in diets affected results cannot be concluded with certainty.

Several companies manufacture polyethylene glycols that may be used for the manufacture of fatty-acid esters for use in emulsifiers. No data were available regarding impurities in polyethylene glycols manufactured by other than one company. It is recognized that impurities might be present in polyethylene glycols, and attention was called to the possibility of aldehydes being present in quantities sufficient to cause toxic effects when certain polyethylene glycols were fed to animals.

(R. 21840–21887, 22113–22305; Ex. 423–429, 432, 440)

Two scientists employed by the Research laboratories of Swift and Company reported studies with several of the surface-active substances.

Acute-toxicity studies on Sta-Soft, Myrj 45, Tween 20, Tween 61, Tween 80, Span 60, cottonseed oil monoglycerides, cottonseed oil mono- and diglycerides, cottonseed oil, lard, and lard mono- and diglycerides showed nothing remarkable.

Chronic-toxicity studies were conducted, using rats and hamsters as test animals, with diets containing various percentages of Myrj 45, Sta-Soft, Tween 20, lard, and mono- and diglycerides. (Sta-Soft is prepared, as are E–4CS and PEG 42, by a reaction between polyethylene glycol of average molecular weight of 400 and commercial stearic acid in the presence of a catalyst.)

In addition, there were some intubations of Sta-Soft and Myrj 45 into the stomachs of hamsters and rabbits.

Results from the feeding tests indicated that synthetic diets containing 25 percent of Tween 20 or Sta-Soft retarded the growth of rats; synthetic diets containing 15 percent or 25 percent of Sta-Soft retarded the growth of hamsters; and bread diets containing 5 percent, 10 percent, or 15 percent of Myrj 45, Sta-Soft, or Tween 20 retarded growth in hamsters. There was increased mortality in animals fed Myrj 45, Sta-Soft, and Tween 20, except in the case of hamsters on a bread diet containing 10 percent Sta-Soft. There was diarrhea in all animals receiving Myrj 45, Sta-Soft, or Tween 20, except in a group of rats receiving 25 percent Sta-Soft in a synthetic diet. The fecal pellets of these rats were voluminous and light-colored. The rats receiving a synthetic diet containing 25 percent Tween 20 and the hamsters receiving 15 percent Tween 20 in a bread diet exhibited severe inflammation about the anus. The investigations reported that bleeding from the genito-urinary tract was common in hamsters receiving diets containing 5 percent, 10 percent, or 15 percent Myrj 45 or Sta-Soft, but that such bleeding was infrequent in animals fed bread diets containing lard or mono- and diglycerides and was rare in rats and hamsters receiving the synthetic diets containing Sta-Soft and in rats receiving synthetic diets containing Tween 20. There was a general unthrifty appearance and increased water consumption in many of the animals receiving the Myrj 45, Sta-Soft, and Tween 20.

The basal diets used before addition of test substances were low in fat, and attempts were made to show that the animal-feeding experiments were unreliable because the diets before addition of test substances were inadequate to support normal growth. Efforts were also made to show that the deleterious effects reported were exaggerated or distorted.

Although these experiments are open to criticism, the basal diets appear to have been theoretically adequate. It is possible that the test substances may have created an abnormal dietary requirement or have interfered with normal utilization of some nutrient in the diet. However, if deleterious effects were brought about in this way, it would not minimize their significance.

The gross pathology and histopathology of the rats and hamsters were reported to one of the investigators by pathologists who were not employees of Swift and Company. From these reports, tabulations of results were prepared as a summary of findings of the pathologists.

In the case of the rats fed 25 percent levels of Sta-Soft, Tween 20, lard, and cottonseed oil mono- and diglycerides for 21 weeks, findings on gross pathology reported by the investigator showed that rats receiving Tween 20 had "100 percent incidence of enlarged kidneys, renal calculi, diarrhea, and ulceration at the base of the tail, and 5 percent incidence of stones in the urinary bladder and of marked enlargement of the cecum." Microscopic examination of slides of the organs involved showed, in the same rats, "100 percent incidence * * * atrophy of the testicular tubules, calcified concretions in the kidneys, obstruction of the renal tubules, decreased splenic lymphoid tissues, atrophy of liver parenchymal cells, and decreased lymphoid tissues in the mesenteric nodes. There was also a high incidence of decreased spermatogenesis, nephritis * * *, increased extramedullary hematopoiesis * * * and hemosiderosis of the mucosal stroma of the cecum."

Gross and histopathological studies on hamsters, made largely by others, were also reported by this investigator. The hamsters had received bread diets containing 5 percent, 10 percent, and 15 percent levels of Sta-Soft, Myrj 45, and Tween 20, lard, and lard mono- and diglycerides. The test animals were sacrificed after 28–39 weeks' feeding. For each of the first three compounds there was a high incidence of fatalities, chronic diarrhea, small testes, thickened bladder walls, abnormal kidneys, enlarged ceca, and hemosiderosis of the liver, cecum, and spleen. Hamsters receiving added lard and lard mono- and diglycerides as test substances showed no unusual incidence of these findings. Stones were removed from the urinary bladders of two hamsters fed Myrj 45, and four hamsters receiving Sta-Soft for periods ranging from 74 days to 260 days.

Three pathologists participated in these histopathological examinations. They did not appear as witnesses. They reported to the Swift investigators in writing. The reports of these pathologists were not always clear regarding the extent of injury indicated, and the witnesses who presented the results through a summary tabulation attempted to interpret such reports for use in such tabulations. Some errors in interpretation were made; a number of errors were located and corrected during cross-examination.

The combined experiments give definite indications of injurious effects from Tween 20, Sta-Soft, and Myrj 45 in the feeding experiments decribed. Whether the effects of these substances were intensified by diets that were borderline in their content of certain necessary nutrients cannot be determined with certainty.

There was also some evidence of injury to rats fed a synthetic diet containing lard at the 25 percent level.

(R. 18287–18315, 18438–18826, 18828–18956, 18959–19579, 19758–20013, 20035–20075, 20104–20151, 20191–20211, 20217–20368, 20378–20384; Ex. 264, 365, 366–379, 380–388, 392, 393)

The Swift investigators reported that single intubations of Sta-Soft and Myrj 45 caused changes in the urine of test rabbits. Atlas presented limited studies concerning this effect arising from ingestion of substantial quantities of cottonseed oil, lard monoglycerides, Myrj 45, and lard. It is not possible to conclude whether there were significantly different results. (R. 21666–21695, 21697–21712, 21892–21945; Ex. 430, 431)

Some limited experiments with Emulgent 45 and Emulgent 52, using rats as the test animal, were reported. Only 20 test rats and 20 controls were used in each case, the feeding lasted only 8 weeks, and the original records were not available. The investigator was not a pathologist but reported pathological results. Some of the rat spleens were reported to be abnormal in color, but the investigator could not explain the significance of the observation. Two preliminary experiments were tried and abandoned. In one, the rats fed Emulgent undiluted did not thrive. In the other, the rats developed a respiratory infection. This study proves little, if anything at all. (R. 13890–13959; Ex. 276–277)

Experimental studies were conducted to determine whether Tween 80, Span 60, Tween 60, or glycol monooleate would affect the rate of fat absorption, but no such result was found. The fate of sorbitan monostearate in the human body was studied through a radioactive tracer technique. Radioactive glucose was used to prepare sorbitol, and this was used in preparation of the sorbitan monostearate. A sorbitan monostearate in which the stearic acid part of the molecule carried C^{14} atoms was also used. These were fed to rats and excretions measured for their radioactivity. When sorbitan monostearate was fed in a water emulsion, a part of it was excreted in the feces without change; part was hydrolyzed to fatty acid and polyol; part of the polyol was excreted in the urine and part was oxidized and excreted as carbon dioxide; part of the fatty acid was oxidized and part excreted in the feces.

When radioactive sorbitan monostearate was fed in oil, about 90 percent was hydrolyzed to fatty acid and polyol. Some of the polyol was oxidized, but probably more than half was excreted in the urine. Part of the freed fatty acid was oxidized by the rat and excreted as carbon dioxide and part was excreted in the feces. A small part of the radioactive compound ingested by the rat was not excreted but was found in the tissues. In just what combination the C^{14} was retained could not be determined from the data obtained.

(R. 18328–18357, 18361–18416; Ex. 363, 363A)

HUMAN STUDIES

These studies may be divided into two parts. The first series involves feeding to infants and the second is concerned with the effect of the surface-active agents in man and how the agents behave in the human body.

Two infant-feeding studies were conducted. In the first, Span 60, Tween 60, and Tween 80 were fed to infants maintained in a special hospital ward. Nine boys received daily about 0.2 gram of Tween 60, 1 gram of Span 60, and what was calculated as 3 milligrams of Tween 80, for periods from about 2 months to 6 months.

The identity of the materials fed is not well established. There is a question on the record whether, for example, the Tween 60 solutions were received from Atlas or prepared in the hospital. The Tween 80 was an ingredient of a vitamin preparation. It cannot, therefore, be definitely determined from the record exactly what was fed and how much was actually given.

Under the conditions of the experiment, the Span 60 was often, if not always, excreted in the stools; yet no quantitative determinations of such excretion of Span 60 or Tween 60 were made. On charts of growth and clinical observations it was reported that the infants grew normally. Most of the test infants were reported to be of Chinese extraction and were thus of lower initial weights than the infants whose growth records were used for comparison. No original records were shown.

The infants were also receiving experimental doses of vitamin A at the time they received the Span 60 and Tween 60. The investigator said: "The possibility exists that the giving of Spans and Tweens might have disturbed the vitamin A experiment, but as far as we can tell it has not, because that experiment is a continuation of a similar study the preceding year, and the results are no different." He did not discuss the possibility that the giving of vitamin A preparations might have caused different results from feeding the Span 60 and Tween 60 than if the mixture had been fed without the extra vitamin A.

Experimental studies were also made on the absorption by the infants of calcium and phosphorus while receiving test substances. Absorption was said to have been normal, but no actual data were submitted.

(R. 13667–13725; Ex. 270–271)

Feeding experiments with somewhat older children were also reported. These tests included considerably more laboratory tests to detect injury. Some of the children were hospitalized for causes not associated with nutrition and others were given the test substances at home by their mothers. Five children were reported to have received 4 grams a day of Span 60 mixed with their cereal for 32 days. Two infants received 1 gram of Tween 60 a day in their formulas for 30 days, and two received the same amount for 14 days. Insofar as the results of laboratory tests could be interpreted, no adverse effects were shown.

The hospital records indicate that there were some lapses in feeding Span 60, and there is a question whether the children received the test substances according to schedule.

(R. 13727–13748, 17761–17839, 17840–17875; Ex. 272, 357–359)

Additional short-term (28 days) feeding tests were conducted with medical students and nurses who were to take measured amounts of products containing Span 60, Tween 60, and Tween 61. The preparations were unpleasant to take, and no adequate supervision was exercised to determine whether the preparations were actually taken according to schedule. This factor makes the results of doubtful value.

The tests performed developed some results not likely to be due to chance, but these were considered of no consequence by the investigator. Moreover, some effects possibly due to test materials were reported by male subjects but not by female.

(R. 13471–13506, 16394–16527, 21807–21819; Ex. 212 (pp. 60, 62, 101, 104, 142, 145))

An investigation was conducted with Tween 65 and Tween 80 to determine what effects, if any, could be detected by X-ray examination of the gastrointestinal tract and by a study of the number and character of the stools. There were 24 adult subjects, 12 of whom received Tween 65 and 12 Tween 80. Each was observed at intervals for 5 weeks. During the first 2 weeks the subjects ingested six placebo capsules with each meal for 13 days. On the tenth day the subjects ingested 10 grains of insoluble carmine as a dye marker. On the fourteenth day the subjects received no capsules but got a barium meal and an X-ray examination of the gastrointestinal tract. The same procedure was repeated, using capsules containing Tween 65 or Tween 80 instead of the placebo. It was stated that each subject took 18 capsules a day in three doses of six capsules each. A capsule was said to contain 0.5 gram of the test substance.

Although the subjects reported variations in bowel movements, these were considered to be of no significance.

The X-ray photographs revealed no changes ascribable to ingestion of the test substances, but some of the examinations were made on days other than those scheduled.

There were variations in the time of passage of the barium meal through the gastrointestinal tract. No effective control was maintained over the subjects, and it is not possible to conclude with certainty that they took the capsules according to plan.

As with other experiments of this kind, the problem arises of establishing a reliable basis of comparison for evaluating the results. On the whole, it is impossible to draw from the results more than the general conclusion that there was no definite indication of acute toxicity from the administration of the test substances.

(R. 14231–14261, 15711–15814, 15823–15941; Ex. 285–287, 287A, 288, 288A)

Another investigator reported results on 12 subjects who participated in experiments designed to show whether a single dose of 3½ grams of Myrj 52 had any effect on the passage of barium sulfate through the gastrointestinal tract as measured by X-ray photographs. Here the problem arises whether conclusions should be based on individual reactions or on averages of results. In eight of the 12 subjects receiving Myrj 52, gastric

emptying time was increased. By averaging results, it was concluded that the Myrj 52 had no effect.

The investigator also reported results on 12 subjects who were participants in experiments designed to show the effect, if any, of the ingestion of 3 grams of Myrj 52 on gastric acidity. Here also the question arises whether conclusions should be drawn from effects on individuals or from averages. When discussing individual cases, the investigator was unwilling to ascribe increased stomach acidity to the inclusion of Myrj 52 in test meals, although variations in acidity were recorded.

From this series of experiments no valid conclusion can be drawn concerning whether the relatively small amount of Myrj 52 ingested affected gastric emptying time or gastric acidity.

(R. 13748–13767, 17537–17669; Ex. 273, 273A, 273B, 273C, 273D)

Still another investigator, while carrying on medical research, became interested in Tween 80 and became convinced that it was capable of increasing fat absorption in certain patients who did not properly utilize fat in the diet. These patients were often people on whom operations had been performed to remove part of the stomach or intestines.

Atlas was interested in investigating the metabolism of Tween 80 when fed to man, and the investigator cooperated with the company in such an investigation. He arranged to have Tween 80 given to human experimental subjects and to have their urine and feces collected for examination in the Atlas laboratories in an effort to trace the elimination of Tween 80 or its reduction products. Atlas also arranged for experiments to determine whether feeding Tween 80 increased the oxalic acid in the urine. The purpose of this was to demonstrate that Tween 80 did not react in the body in the same way as did ethylene glycol and diethylene glycol, since the method of preparation of Tween 80 gave rise to the possibility that it might contain small amounts of these glycols as impurities. The same investigator conducted recovery experiments with Myrj 52 and Tween 60 as well as Tween 80.

In reliance upon chemical analyses made in the Atlas laboratories, this investigator said that the recovery experiments tended to show that, within analytical error, there was complete excretion of the polyoxyethylene portions of Tween 80, Myrj 52, and Tween 60, mainly in the feces. He stated also that the experiments with respect to oxalic acid tended to show that Tween 80 did not increase, beyond the normal range, the oxalic acid content of the urine of five subjects.

No experiments were conducted with small amounts of ethylene glycol to check the techniques of the experiments with respect to the oxalic acid content of urine. The reliability and accuracy of all these experiments are clouded by testimony that some recovery studies in which the percentages of recovered material were rather low had been excluded from the exhibits; that some values in the laboratory data had been ignored; and that there were inexplicable errors in the calculations underlying the reported recoveries. Also, it developed that some of the analysts fabricated some results on Tween 60 in order that the recovery data would show practically complete elimination of the polyethylene material. The same analysts did the laboratory work on Myrj 52.

It cannot be determined from this record that Tween 80 was of benefit to patients with impaired fat absorption. The experiments were neither extensive enough nor sufficiently controlled to support such a finding.

The investigator testified about his clinical observations on a number of patients who had received Tween 80 over a considerable period. He testified also about certain clinical laboratory tests made on these patients at various times. All the tests tended to show that no injury was done, and in the investigator's opinion the only possible deleterious effect that may have resulted from Tween 80 was the occasional appearance of soft stools. The laboratory tests on blood cholesterol showed no consistent pattern, but nevertheless it was concluded that Tween 80 had no effect on the absorption of cholesterol from the diet.

(R. 13587–13666, 14304–14331, 17196–17386; Ex. 267–269, 293A, 293, 352–353)

Other investigators reported their observations on certain hospitalized patients who were fed Span 60 and Tween 60. The first experiment dealt with feeding these products for 4 weeks to elderly patients and performing laboratory tests at the beginning, middle, and end of all feeding periods. Ten males received 6 grams of Tween 60 a day and nine males received 6 grams of Span 60 a day. The blood and urine of these patients were tested by ordinary hospital tests used to diagnose diseases. These tests had no known specificity in detecting the possible effects of Span 60 or Tween 60, but some results indicated abnormalities or injury. Glycosuria was noted in some patients receiving Span 60. Bromosulfophthalein retention increased in some patients receiving Span 60 and in some receiving Tween 60. Positive tests for acetone in the urine were noted in several subjects.

It was then decided to test additional subjects with placebos (capsules containing corn oil). The subjects in this group were seven women and two men. Although some of the subjects showed abnormalities during or at the end of the test, the experiment on the whole failed to show that the consumption of the placebos caused the same reactions as Span 60 and Tween 60.

A series of experiments were planned and conducted to test the validity of the preceding results. One test involved giving a large dose of Span 60 at one time and then determining the level of glucose in the blood. The significance of this is not clear. The investigator postulated that the acetone in the urine was not due to acetone bodies, but was caused by bromosulfophthalein's being excreted as a result of prior injections of bromosulfophthalein for the retention tests. However, the dates of the tests show that in most cases this interference was unlikely or impossible. The investigator also thought that the results of increased bromosulfophthalein retention might not be due to liver injury but to poor circulation.

Additional tests were made with eight males and one female who received Tween 60 and seven males who received Span 60 as in the previous tests. These experiments did not show the same effects noted in the previous subjects. But the uncertain nature of the previous results on bromosulfophthalein led the investigators to use young, healthy adults as subjects for testing for possible liver injury as a consequence of taking capsules of Span 60, Tween 60, and a placebo. Ten subjects received Tween 60. In nine, no effect was reported. In one, bromosulfophthalein retention, which initially was 5.1 percent, rose to 13 percent after 14 doses. Forty-eight hours later a repeat test showed only 1 percent retention, and at the end of the test period retention on this subject was reported as 3.8 percent. Two of the subjects receiving Tween 60 reported moderate nausea and slight diarrhea, and on a retest one of them had a recurrence of the symptoms. None of the Span 60 and placebo subjects showed excessive bromosulfophthalein retention or any reaction to the material.

A third experiment was conducted to test the effect of Span 60 and Tween 60 on liver function as measured by bromosulfophthalein retention. The subjects were elderly patients, but were apparently more carefully screened than in the first test, and only those were selected that showed a very low bromosulfophthalein retention test before taking either of the test substances. Fifteen subjects took 6 grams of Tween 60 daily for 28 days; 16 took 6 grams of Span 60 daily for 28 days; and 16 took placebos. The subjects did not show excessive bromosulfophthalein retention. Two subjects on Tween 60 reported nausea and diarrhea. From this experiment, the investigator concluded that the results on the first group of subjects were false positive reactions and were not due to the test substances.

While record keeping in these experiments left much to be desired, there were, in addition to the possible significance of glycosuria, positive tests for acetone bodies and possible injury to liver as measured by bromosulfophthalein retention in the first experiment, a number of other results reported that, on statistical analysis, were not likely to have been chance results. Thus, they are in need of further study. These include total cholesterol in the blood and percentages of cholesterol esters and hemoglobin. While the investigator recognized certain shortcomings and inconsistencies, he thought he was justified in disregarding results that he suspected of being inconsistent.

Gastrointestinal studies were conducted on some of the same subjects described above. The first 10 Tween 60 subjects and the first nine Span 60 subjects were studied by X-ray and fluoroscopic means at the beginning and end

of the feeding period. These studies were said to show no significant effect on the gas pattern of the bowel and gastric emptying time or passage of a barium meal through the gastrointestinal tract and no detectable effect on gall bladder. Here again, the tests used were common diagnostic tests for gastrointestinal ailments. These tests were not specifically designed for detecting possible deleterious effects from the ingestion of Span 60 or Tween 60. Whether the tests were adequate to detect any possible effect of Span 60 or Tween 60 on the formation of gallstones is not clear. In addition, there is the question of how to interpret results on individuals subjects; as for example, the possible injury from Span 60 on case No. 2 whose gall bladder was visualized before, but not after, taking the Span 60.

It was reported that patients who took a single 20-gram dose of Tween 60 had no change of gastric motility, while the administration of the same amount of Span 60 appeared to cause a slight increase in gastric motility in two of five patients studied. A test for gastric acidity in a few patients receiving 20-gram doses of Span 60 and Tween 60 was reported, but interpretation is difficult although an investigator reported little effect on gastric acidity. Experiments were made on patients having bile-duct surgery to determine the effect of Span 60 and Tween 60 on bile flow, but the results were confusing and the investigator concluded that the method was unsatisfactory.

A question concerning the identity of what was in the capsules developed when a chemist for the hospital attempted to check the identity by determining the saponification number of the capsules said to contain Tween 60. He obtained a value of 57. A commercial laboratory examined the same batch and obtained a value of 43.9. Atlas's chemists said that the Tween 60 had a saponificatiton number of 50 and explained that the higher figure was due to the chemist's unfamiliarity with the method for determining saponification number and the low figure was due to absorption by Tween 60 of water and gelatin from the capsules.

(R. 19351–19381, 20397–20815, 20817–20947; Ex. 394–397, 405)

77. Atlas presented its director of research and a professor of nutrition to give their evaluation of all the scientific evidence produced by the other witnesses. The outside expert expressed the opinion, based on the work reported by all the investigators together with some work of his own, that Tween 60, Tween 65, Tween 80, and Myrj 52 had not been shown to be harmful in the diet at a level of 1/10 percent, and that Span 60 had not been shown to be harmful at a level of 2/10 percent. He concluded that there would be no likelihood of harm to consumers from the use of these surface-active agents at these levels; but his general approach was that he did not consider the materials unwholesome and would not believe that they interfered with normal metabolism of foods until definite proof to that effect had been established.

This witness advanced a theory to explain the observe adverse reactions from feeding substantial amounts of Tweens to animals, to the effect that the diarrhea was brought on by irritation of the intestinal tract; that this caused the animal to suffer from dehydration; and that the evidences of injury sometimes noted were sequelae of dehydration. That explanation is only a theory, and the cause of the adverse effects should be definitely established.

This witness did some investigations to determine whether Span 60, Tween 60, Tween 65, Tween 80, and monoglycerides affected the course of liver necrosis in rats and to determine whether Tween 60 and Tween 80 in the diet of rats affected the growth of microorganisms in the intestines. No definite effects from any of the test substances were developed by these experiments.

Atlas' director of research testified mainly in criticism of the work of investigators who have published articles indicating that the Atlas products may have some toxic or unwholesome properties. He discussed the difficulty in interpreting the results of biological tests, with the idea of explaining that the noted adverse effects were not actually caused by the Atlas materials. He also described work that he had arranged to have done but which had not been completed. There is little helpful factual information in the testimony of this witness.

(R. 14854–14889, 14891–15014, 19584–19751, 20952–21038, 21601–21662, 21712–21795, 21948–22070, 22074–22086, 22414–22434, 22440–22513; Ex. 297–299)

78. The results reported in the summaries of the testimony by pharmacologists and nutritionists reviewed in the preceding finding are largely negative. It is concluded, however, that there is no problem of acute toxicity from any of these surface-active preparations.

The actual chemical composition of the various products referred to as emulsifiers, distributed under trade names and referred to at times in the record under the descriptive chemical names of monoesters of sorbitan and fatty acids, monoesters of fatty acids and polyoxyethylene sorbitan, and monesters of polyoxyethylene glycols and fatty acids is not well established, and their purity is largely a matter of conjecture. It is probable that impurities may at times be present in polyoxyethylene compounds as commercially prepared and that such impurities may be responsible for some of the concretions found in the bladders or kidneys of animals receiving some of the experimental diets containing these compounds. Identification of many possible impurities in the various types of compounds has not been attempted. The record affords no satisfactory basis for preparing adequate specifications to ensure constant identity and purity of most of the surface-active substances proposed as optional ingredients of ice cream.

From the mass of experimental data reported, the basic diet to which any of these surface-active substances are added may be, to a large extent, the controlling factor in determining whether evidence of injury or malnutrition of experimental animals will be shown. Just what mechanisms are involved cannot be deduced from this record. One investigator thought that there might be interference with utilization of vitamin B_1 under some conditions but did not pursue the matter. Another suspected interference of some kind, but undertook experiments to overcome the interference rather than to determine its mechanism.

Diarrhea of varying severity was almost always noted when polyoxyethylene compounds in substantial quantities were fed to experimental animals. No convincing explanation of the reason for this phenomenon is contained in the record. The theory of Altas' outside expert relative to the cause of this diarrhea may be correct, but other theories would also fit the facts reported.

Most of the experiments on humans were negative, but the work on the elderly subjects suggests the possibility that persons of lower vitality may be affected when more vigorous persons are not.

Whether any of these surface-active agents affect fat absorption is not clear. If they do increase fat absorption, it would seem probable that the absorption of cholesterol that accompanies all animal fats would also be affected. At the present time, the state of knowledge on this subject would appear to indicate that increased absorption of cholesterol would render the use of these surface-active agents in foods suspect in the minds of many.

The finding with respect to hemosiderosis suggests the possibility that some surface-active agents interfere with the mechanism regulating iron absorption of animals on certain diets. Hemosiderosis is apparently influenced by certain dietary deficiencies, and the possibility exists that such deficiencies might be precipitated by the addition of some of these surface-active agents to some types of diet.

Although no single surface-active agent described in Finding 75 appears likely to be consumed in large quantities from foods that might contain such compounds, the multiplicity of the surface-active substances now being manufactured and finding their way into foods and their possible additive effect create a serious doubt whether these compounds are suitable for use in ice cream.

No information was furnished relative to the pharmacological properties of several emulsifiers described in Finding 75.

The evidence does not justify finding that the use in ice cream, ice milk, or sherbet of surface-active agents other than mono- and diglycerides of fat-forming fatty acids would promote honesty and fair dealing in the interest of consumers.

79. Mono- and diglycerides of fat-forming fatty acids are known to be present in small quantities in fats and oils used for food purposes; they are formed to some extent when some foods containing triglycerides are cooked; in metabolic tests, utilizing small test animals, mono- and diglycerides appear to be metabolized and furnish approximately the same energy as triglycerides; and in the process of the human metabolism of tri-

glycerides, mono- and diglycerides are formed, to some extent at least, from triglycerides before absorption of the triglycerides occurs.

An experiment reported by one investigator, in which rats did not do well on a diet containing a preparation said to be high in monoglyceride, was not considered by him to give an accurate indication of the properties of the monoglyceride. That the preparation fed had become rancid before use and the effects noted were due to rancidity appears possible. From the data available on the subject at the present time, mono- and diglycerides of fat-forming fatty acids (with possibly the exception of mono- and diglycerides of lauric acid) appear suitable for incorporation in foods containing substantial quantities of triglycerides.

(R. 13564–13585, 16678–16688, 17882–17885, 17898, 17913–17918, 17932–17933, 18017–18020, 18026–18028, 18034–18037, 18063–18066; Ex. 239, 243, 248–255, 260–264, 346, 347, 360–361, 364)

80. Whether use of any surface-active agents in ice cream, ice milk, or sherbet is of any substantial advantage to consumers is not entirely clear. However, the desire of many ice cream manufacturers to obtain certain effects on the properties of ice cream, ice milk, and sherbets ascribed by them to use of surface-active agents can be fulfilled by use of mono- and diglycerides of fat-forming fatty acids without introducing the element of uncertainty about possible deleterious effects that would accompany the use of other surface-active agents, and it is reasonable to list mono- and diglycerides of fat-forming fatty acids (except lauric acid) as optional ingredients of ice cream, ice milk, and sherbets, within the limitations proposed. (See § 20.1 (a) (11) of proposed regulation.)

Conclusion. Upon consideration of the whole record and the foregoing findings of fact, it is concluded that it will promote honesty and fair dealing in the interest of consumers to fix and establish the definitions and standards of identity hereinafter set forth for the following foods: Ice cream; frozen custard, french ice cream, french custard ice cream; ice milk; fruit sherbets; and water ices.

Sec.

20.1 Ice cream; identity; label statement of optional ingredients.

20.2 Frozen custard, french ice cream, french custard ice cream; identity; label statement of optional ingredients.

20.3 Ice milk; identity; label statement of optional ingredients.

20.4 Fruit sherbets; identity; label statement of optional ingredients.

20.5 Water ices; identity; label statement of optional ingredients.

AUTHORITY: §§ 20.1 to 20.5 issued under sec. 701, 52 Stat. 1055, as amended; 21 U. S. C. 371. Interpret or apply sec. 401, 52 Stat. 1046, as amended; 21 U. S. C. 341.

§ 20.1 *Ice cream; identity; label statement of optional ingredients.* (a) Ice cream is the food prepared by freezing, while stirring, a pasteurized mix composed of one or more of the optional dairy ingredients specified in paragraph (b) of this section, sweetened with one or more of the optional saccharine ingredients specified in paragraph (c) of this section. One or more of the optional ingredients named in paragraph (c) (5) to (10), inclusive, of this section and in subparagraph (1) to (11), inclusive, of this paragraph may be used, subject to the conditions hereinafter set forth.

(1) Ground spice, ground vanilla beans, infusion of coffee or tea, or any natural food flavoring.

(2) Any artificial food flavoring.

(3) Chocolate or cocoa, which may be added as such or as a suspension in sirup, and which may contain disodium phosphate or sodium citrate in such quantity that the finished ice cream contains not more than 0.2 percent by weight of disodium phosphate or 0.1 percent by weight of sodium citrate. For the purposes of this section, the term "cocoa" means one or any combination of two or more of the following: Cocoa, breakfast cocoa, low-fat cocoa, and the unpulverized residual material prepared by removing part of the fat from ground cacao nibs.

(4) Mature fruit or the juice of mature fruit, which may be fresh, frozen, canned, or dried. Fruit juice may be concentrated. The fruit may be whole, shredded, or comminuted; it may be sweetened, thickened with pectin or with one or more of the ingredients named in subparagraph (11) of this paragraph, subject to the restriction on the total quantity of such substances in ice cream prescribed in that subparagraph; and it may be acidulated with citric or ascorbic acid. The fruit is prepared by the removal of pits, seeds, skins, and cores, where such removal is usual in preparing that kind of fruit for consumption as fresh fruit; except that in the case of citrus fruits the whole fruit, including the peel but excluding the seeds, may be used. In the case of concentrated fruit juice, the substances contributing flavor volatilized during concentration may be condensed and reincorporated in the concentrated fruit juice. For the purposes of this section, the flesh of the coconut shall be considered a fruit.

(5) Nut meats, which may be roasted, cooked in an edible fat or oil, or preserved in sirup, and which may be salted.

(6) Malted milk.

(7) Confectionery. For the purposes of this section, the term "confectionery" means candy, cakes, cookies, and glacéed fruits.

(8) Properly prepared and cooked cereal.

(9) Any distilled alcoholic beverage, including liqueurs, or any wine, or mixtures of two or more of these.

(10) Liquid eggs, frozen eggs, dried eggs, egg yolks, frozen egg yolks, and dried egg yolks. Any egg ingredient used is added to the mix before it is pasteurized. The total weight of egg yolk solids in any such ingredient, used singly or in combination of two or more such ingredients, is less than the minimum prescribed for frozen custard by § 20.2.

(11) Gelatin, algin (sodium alginate), sodium carboxymethylcellulose, extract of Irish moss, psyllium seed husk, agar-agar, gum acacia, gum karaya, locust bean gum, gum tragacanth, oat gum, guar seed gum, calcium sulfate, monoglycerides or diglycerides or both of fat-forming fatty acids (except lauric acid). The total weight of the solids of any such ingredient used singly or of any combination of two or more such ingredients used (including any such ingredient added separately to the fruit ingredient) is not more than 0.5 percent of the weight of the finished ice cream. Such ingredients may be added in admixture with dextrin.

Coloring may be added. The mix may be seasoned with salt, and may be homogenized. The kind and quantity of optional dairy ingredients used, and the content of milk fat and nonfat milk solids therein, are such that the weights of milk fat and total milk solids are not less than 10 percent and 20 percent, respectively, of the weight of the finished ice cream; but in no case shall the content of milk solids not fat be less than 6 percent, except that when one or more of the bulky optional ingredients as named in subparagraphs (3) to (8), inclusive, of this paragraph are used the weights of milk fat and total milk solids (exclusive of such fat and solids in any malted milk used) are not less than 10 percent and 20 percent, respectively, of the remainder obtained by subtracting the weight of such optional ingredients, modified as prescribed below, from the weight of the finished ice cream; but in no case is the weight of milk fat or total milk solids less than 8 percent and 18 percent, respectively, of the weight of the finished ice cream. In calculating the reduction of milk fat and total milk solids from the use of bulky optional ingredients, chocolate and cocoa solids used shall be considered the bulky ingredients of subparagraph (3) of this paragraph. In order to make allowance for additional sweetening ingredients needed when bulky ingredients are used, the weight of chocolate or cocoa solids may be multiplied by 1.5; the weight of fruit or nuts used may be multiplied by 1.4; and the weight of concentrated or dried fruits may be multiplied by appropriate factors to obtain the original weights before concentrating or drying and this weight multiplied by 1.4. The finished ice cream contains not less than 1.6 pounds of total solids to the gallon and weights not less than 4.5 pounds to the gallon. Any artificial flavoring in any chocolate, cocoa, confectionery, or other ingredient used is an optional ingredient of the finished ice cream.

(b) The optional dairy ingredients referred to in paragraph (a) of this section are cream, dried cream, plastic cream (sometimes known as concentrated milk fat), butter, butter oil, milk, concentrated milk, evaporated milk, sweetened condensed milk, superheated condensed milk, dried milk, skim milk, concentrated skim milk, evaporated skim milk, condensed skim milk, superheated condensed skim milk, sweetened condensed skim milk, sweetened condensed part-skim milk, nonfat dry milk, sweet cream buttermilk, condensed sweet cream buttermilk, dried sweet cream buttermilk, and skim milk that has been concentrated

and from which part of the lactose has been removed by crystallization. Water may be added, or water may be evaporated from the mix. The sweet cream buttermilk and the concentrated sweet cream buttermilk or dried sweet cream buttermilk, when adjusted with water to a total solids content of 8.5 percent, has a titratable acidity of not more than 0.17 percent, calculated as lactic acid. The term "milk" as used in this section means cow's milk.

(c) The optional saccharine ingredients referred to in paragraph (a) of this section are:

(1) Sugar (sucrose) or sugar sirup.
(2) Dextrose.
(3) Invert sugar (in paste or sirup form).
(4) Corn sirup, dried corn sirup, glucose sirup.
(5) Maple sirup, maple sugar.
(6) Honey.
(7) Brown sugar.
(8) Malt sirup, maltose sirup, malt extract.
(9) Dried malt sirup, dried maltose sirup, dried malt extract.
(10) Refiner's sirup.
(11) Molasses (other than blackstrap).
(12) Lactose.

(d) (1) When vanilla beans or extract of vanilla beans or both are used as the characterizing ingredient of ice cream, artificial flavoring is not used.

(2) When any artificial flavoring is used in ice cream, directly or as a component of any other ingredient, the label shall bear the statement "artificially flavored," "artificial flavoring added," "with added artificial flavoring," or "_____, an artificial flavor added," the blank being filled in with the common or usual name of the artificial flavoring ingredient; or in lieu thereof, in case the artificial flavoring is a component of another ingredient, "_____ artificially flavored," the blank being filled in with the name of such other ingredient.

(3) Wherever the name of the food appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the statements referred to in subparagraph (2) of this paragraph shall immediately and conspicuously precede or follow such name, without intervening written, printed, or other graphic matter, except that a word or words indicating the kind of the ice cream may so intervene.

§ 20.2 *Frozen custard, french ice cream, french custard ice cream; identity; label statement of optional ingredients.* Frozen custard, french ice cream, french custard ice cream conforms to the definition and standard of identity, and is subject to the requirements for label statement of optional ingredients, prescribed for ice cream by § 20.1, except that one or more of the optional egg ingredients permitted by § 20.1 (a) (10) are used in such quantity that the total weight of egg yolk solids therein is not less than 1.4 percent of the weight of the finished frozen custard: *Provided, however,* That when the ingredients named in § 20.1 (a) (3) through (8), inclusive, are used the content of egg yolk solids may be reduced in proportion to the bulky ingredient or ingredients added, under the conditions prescribed by § 20.1 (a) for reduction in milk fat and total milk solids; but in no case is the content of egg yolk solids less than 1.12 percent.

§ 20.3 *Ice milk; identity; label statement of optional ingredients.* Ice milk is the food prepared from the same ingredients and in the same manner prescribed in § 20.1 for ice cream and complies with all the provisions of § 20.1 (including the requirements for label statement of optional ingredients), except that:

(a) Its content of milk fat is more than 2 percent but not more than 7 percent.

(b) Its content of total milk solids is not less than 11 percent.

(c) The provision for reduction in milk fat and total milk solids from the addition of bulky ingredients in § 20.1 (a) does not apply.

(d) The quantity of food solids per gallon is not less than 1.3 pounds.

(e) When any artificial coloring is used in ice milk, directly or as a component of any other ingredient, the label shall state that fact as prescribed in § 20.1 (d) for the label declaration of artificial flavoring except that the words "color", "coloring", and "colored" shall be substituted for the words "flavor", "flavoring", and "flavored". If both artificial flavoring and artificial coloring are used the label statements may be combined.

§ 20.4 *Fruit sherbets; identity; label statement of optional ingredients.* (a) Fruit sherbets are the foods each of which is prepared by freezing, while stirring, a mix composed of one or more of the optional fruit ingredients specified in paragraph (b) of this section and one or more of the optional dairy ingredients specified in paragraph (c) of this section, sweetened with one or more of the optional saccharine ingredients sugar, dextrose, invert sugar (paste or sirup), glucose sirup, corn sirup, dried corn sirup, malt sirup, malt extract, dried malt sirup, dried malt extract, maltose sirup, dried maltose sirup, with or without added water. The mix of combined dairy ingredients, with or without other ingredients, is pasteurized. One or more of the optional ingredients named in subparagraphs (1) and (3), inclusive, of this paragraph may be used, subject to the conditions hereinafter set forth.

(1) Liquid eggs, frozen eggs, dried eggs, egg yolks, frozen yolks, dried yolks; but the weight of egg yolk solids therein is less than ½ of 1 percent of the weight of the finished fruit sherbet.

(2) Gelatin, egg white, algin (sodium alginate), sodium carboxymethylcellulose, extract of Irish moss, psyllium seed husk, agar-agar, gum acacia, gum karaya, locust bean gum, gum tragacanth, oat gum, guar seed gum, pectin, calcium sulfate, monoglycerides or diglycerides or both of fat-forming fatty acids (except lauric acid); but the total weight of the solids of any such ingredients, used singly, or of any combination of two or more such ingredients used (including any such ingredient added separately to the fruit ingredient) is not more than 0.5 percent of the weight of the finished fruit sherbet. Such ingredients may be added in admixture with dextrin.

(3) Citric acid, tartaric acid, malic acid, lactic acid, ascorbic acid, or any combination of two or more of these, in such quantity as seasons the finished food.

The titratable acidity of the finished fruit sherbet, calculated as lactic acid, is not less than 0.35 percent. Coloring may be added. The mix may be seasoned with salt and may be homogenized. The kind and quantity of optional dairy ingredients used, and the content of milk fat and nonfat milk solids therein, are such that the weight of milk fat is not less than 1 percent and not more than 2 percent, and the weight of total milk-constituent solids is not less than 2 percent and not more than 5 percent of the weight of the finished fruit sherbet. The finished fruit sherbet weighs not less than 6 pounds to the gallon.

(b) The optional fruit ingredients referred to in paragraph (a) of this section are any mature fruit or the juice of any mature fruit. The fruit or fruit juice used may be fresh, frozen, canned, or dried. The fruit juice may be concentrated. The fruit may be thickened with pectin or other of the optional ingredients named in paragraph (a) (2) of this section, subject to the restriction on the total quantity of such substances in fruit sherbets prescribed in that paragraph. The fruit is prepared by the removal of pits, seeds, skins, and cores where such removal is usual in preparing that kind of fruit for consumption as fresh fruit, except that in the case of citrus fruits the whole fruit, including the peel but excluding the seeds, may be used. The fruit may be screened, crushed, or otherwise comminuted. It may be acidulated with citric or ascorbic acid. In the case of concentrated fruit juices, the substances contributing flavor volatilized during concentration may be condensed and reincorporated in the concentrated fruit juice. The quantity of fruit ingredients used is such that, in relation to the weight of the finished sherbet, the weight of fruit or fruit juice, as the case may be (including water necessary to reconstitute dried fruits or concentrated or dried fruit juices to their original moisture content), is not less than 2 percent in the case of citrus sherbets, 6 percent in the case of berry sherbets, and 10 percent in the case of sherbets prepared with other fruits. For the purposes of this section, tomatoes and rhubarb are considered as kinds of fruit.

(c) The optional dairy ingredients referred to in paragraph (a) of this section are cream, dried cream, plastic cream (sometimes known as concentrated milk fat), butter, butter oil, milk, concentrated milk, evaporated milk, superheated condensed milk, sweetened condensed milk, dried milk, skim milk, concentrated skim milk, evaporated skim milk, condensed skim milk, superheated condensed skim milk, sweetened condensed skim milk, sweetened condensed part-skim milk, nonfat dry milk, sweet cream buttermilk, condensed sweet cream buttermilk, dried sweet cream buttermilk, sweetened skim milk that has been concentrated and from which

part of the lactose has been removed after crystallization, cheese whey, concentrated cheese whey, dried cheese whey. Water may be added. The sweet cream buttermilk, the concentrated sweet cream buttermilk, or dried sweet cream buttermilk adjusted with water to a total solids content of 8.5 percent in each case has a titratable acidity of not more than 0.17 percent, calculated as lactic acid. The term "milk" as used in this section means cow's milk.

(d) The name of each such fruit sherbet is "_____ sherbet," the blank being filled in with the common name of the fruit or fruits from which the fruit ingredient used is obtained, except as provided in paragraph (e) of this section. When two or more fruit names are filled in, such names are in the order of predominance, if any, by weight of the respective fruit ingredients used.

(e) In case cheese whey, concentrated cheese whey, or dried cheese whey is used as an optional ingredient, the name of the sherbet is "_____ whey sherbet," the blank being filled in with the name or names of the fruit ingredients used.

(f) When any artificial coloring is used in fruit sherbet directly or as a component of any other ingredient, the label shall state that fact as prescribed in § 20.1 (d) for the label declaration of artificial flavoring except that the words "color", "coloring", and "colored" shall be substituted for the words "flavor", "flavoring", and "flavored".

§ 20.5 *Water ices; identity; label statement of optional ingredients.* (a) Water ices are the foods each of which is prepared by freezing, while stirring, a mix composed of one or more of the optional fruit ingredients named in paragraph (b) of this section, sweetened with one or more of the optional saccharine ingredients sugar, invert sugar (paste or sirup), corn sirup, dried corn sirup, malt sirup, malt extract, dried malt sirup, dried malt extract, maltose sirup, and dried maltose sirup, with or without added water. One or more of the optional ingredients named in subparagraphs (1) and (2) of this paragraph may be used, subject to the conditions hereinafter set forth.

(1) Gelatin, egg white, algin (sodium alginate), sodium carboxymethylcellulose, extract of Irish moss, psyllium seed husk, agar-agar, gum acacia, gum karaya, locust bean gum, gum tragacanth, guar seed gum, oat gum, pectin; but the total weight of the solids of any such ingredient used singly, or of any combination of two or more such ingredients used (including any such ingredient added separately to the fruit ingredient) is not more than 0.5 percent of the weight of the finished water ice. Such ingredients may be added in admixture with dextrin.

(2) Citric acid, tartaric acid, malic acid, lactic acid, ascorbic acid, or any combination of two or more of these, in such quantity as seasons the finished food.

The titratable acidity of the finished water ice, calculated as lactic acid, is not less than 0.35 percent. Coloring may be added. The mix may be seasoned with salt and may be homogenized. The finished water ice weighs not less than 6 pounds to the gallon.

(b) The optional fruit ingredients referred to in paragraph (a) of this section are any mature fruit or the juice of any mature fruit. The fruit or fruit juice used may be fresh, frozen, canned, or dried. The fruit juice may be concentrated. The fruit may be thickened with pectin or other of the optional ingredients named in paragraph (a) (1) of this section, subject to the restriction on the total quantity of such substances in water ices prescribed by that paragraph. The fruit is prepared by the removal of pits, seeds, skins, and cores where such removal is usual in preparing that kind of fruit for consumption as fresh fruit, except that in the case of citrus fruits the whole fruit, including the peel but excluding the seeds, may be used. The fruit may be screened, crushed, or otherwise comminuted. It may be acidulated with citric acid or ascorbic acid. In the case of concentrated fruit juices, the substances contributing flavor volatilized during concentration may be condensed and reincorporated in the concentrated fruit juice. The quantity of fruit ingredient used is such that, in relation to the weight of the finished water ice, the weight of fruit or fruit juice, as the case may be (including water necessary to reconstitute dried fruits or concentrated or dried fruit juices to their original moisture content), is not less than 2 percent in the case of citrus fruits, 6 percent in the case of berry fruits; and 10 percent in the case of other fruits.

(c) The name of each such water ice is "_____ ice," the blank being filled in with the common name of the fruit or fruits from which the fruit ingredient used is obtained. When two or more fruit names are filled in, such names shall appear in the order of predominance, if any, by weight of the respective fruit ingredients used.

(d) When any artificial coloring is used in water ice, directly or as a component of any other ingredient, the label shall state that fact as prescribed in § 20.1 (d) for the label declaration of artificial flavoring except that the words "color", "coloring", and "colored" shall be substituted for the words "flavor", "flavoring", and "flavored".

Any interested person whose appearance was filed at the hearing may, within 90 days from the date of publication of this tentative order in the FEDERAL REGISTER, file with the Hearing Clerk, Department of Health, Education, and Welfare, Room 5440, Health, Education, and Welfare Building, 330 Independence Avenue SW., Washington 25, D. C., written exceptions thereto. Exceptions shall point out with particularity the alleged errors in this tentative order and shall contain specific references to the pages of the transcript of the testimony or to the exhibits on which such experiments are based. Such exceptions may be accompanied by a memorandum or brief in support thereof. Exceptions and accompanying memoranda or briefs shall be submitted in quintuplicate.

Dated: March 17, 1958.

[SEAL] GEO. P. LARRICK,
Commissioner of Food and Drugs.

[F. R. Doc. 58-2094; Filed, Mar. 25, 1958; 8:45 a. m.]

FEDERAL TRADE COMMISSION

[16 CFR Part 193]

[File No. 21-425]

SLIDE FASTENER INDUSTRY

TRADE PRACTICE RULES; NOTICE OF HEARING AND OF OPPORTUNITY TO PRESENT VIEWS, SUGGESTIONS OR OBJECTIONS

In the matter of proposed trade practice rules for the Slide Fastener Industry to supersede trade practice rules promulgated for the Slide Fastener Industry on July 18, 1950 (16 CFR Part 193).

Opportunity is hereby extended by the Federal Trade Commission to any and all persons, firms, corporations, organizations, or other parties, affected by or having an interest in the proposed trade practice rules for the Slide Fastener Industry (to supersede the rules for the Slide Fastener Industry as promulgated July 18, 1950), to present to the Commission their views concerning said rules, including such pertinent information, suggestions, or objections as they may desire to submit, and to be heard in the premises. For this purpose they may obtain copies of the proposed rules upon request to the Commission. Such views, information, suggestions, or objections may be submitted by letter memorandum, brief, or other communication, to be filed with the Commission not later than April 17, 1958. Opportunity to be heard orally in the matter will be afforded at the hearing commencing at 6:30 p. m., e. s. t., Thursday, April 17, 1958, in the Roosevelt Hotel (Rooms 3, 4 and 5 of the Vanderbilt Suite), Madison Avenue and 45th Street, New York, New York, to any such persons, firms, corporations, organizations, or other parties, who desire to appear and be heard. After due consideration of all matters presented in writing or orally, the Commission will proceed to final action on the proposed rules.

The industry for which trade practice rules are sought to be established through this proceeding consists of persons, firms, corporations, and organizations engaged in the manufacture, sale or distribution of all types and kinds of slide fasteners (commonly called "zippers"), or any component parts thereof, including stringers, fastener chains, sliders, pulls, bottom and top stops, and separating end components.

These proceedings were instituted by the Commission pursuant to an application of the Committee on Trade Practices for this industry. The announced hearing constitutes the first step in pro-

ceedings to revise and extend existing trade practice rules for this industry.

Issued: March 21, 1958.

By direction of the Commission.

[SEAL] ROBERT M. PARRISH, *Secretary.*

[F. R. Doc. 58-2207; Filed, Mar. 25, 1958; 8:47 a. m.]

NOTICES

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[Classification No. 26]

COLORADO

SMALL TRACT CLASSIFICATION CANCELLATION

Pursuant to authority delegated to me by the Colorado State Supervisor of the Bureau of Land Management effective February 19, 1958 (23 F. R. 1098), Colorado Small Tract Classification No. 26, appearing as Federal Register Document 57-6252 on page 6066 of the issue of Thursday, August 1, 1957, is cancelled in its entirety.

J. ELLIOTT HALL, *Lands and Minerals Officer.*

MARCH 18, 1958.

[F. R. Doc. 58-2197; Filed, Mar. 25, 1958; 8:45 a. m.]

ALASKA

NOTICE OF PROPOSED WITHDRAWAL AND RESERVATION OF LANDS

The City of Palmer has filed an application, Serial No. Anchorage 040688, for the withdrawal of the lands described below, from all forms of appropriation under the public land laws, including mining and mineral leasing laws. The applicant desires the land for a municipal watershed reserve.

For a period of 60 days from the date of publication of this notice, persons having cause may present their objections in writing to the undersigned official of the Bureau of Land Management, Department of the Interior, Box 480, Anchorage, Alaska.

If circumstances warrant it, a public hearing will be held at a convenient time and place, which will be announced.

The determination of the Secretary on the application will be published in the FEDERAL REGISTER. A separate notice will be sent to each interested party of record.

The lands involved in the application are:

SEWARD MERIDIAN

T. 19 N., R. 2 E. (Unsurveyed),
Section 1: All.
T. 20 N., R. 2 E. (Unsurveyed),
Section 12: E½E½;
Section 13: E½NE¼, SE¼;
Section 24: E½, E½SW¼;
Section 25: E½, E½NW¼, SW¼;
Section 36: All.
T. 20 N., R. 3 E. (Unsurveyed),
Section 6: W½E½, W½;
Section 7: W½E½, W½,
Section 18: W½NE¼, W½;
Section 19: NW¼, W½SW¼;
Section 30: W½NW¼.
T. 21 N., R. 2 E. (Unsurveyed),
Section 25: NW¼SW¼, S½S½;
Section 26: NE¼SE¼;
Section 36: E½NE¼, NW¼NE¼.
T. 21 N., R. 3 E. (Unsurveyed),
Section 31: W½.

Containing approximately 5,000 acres.

L. T. MAIN, *Operations Supervisor, Anchorage.*

[F. R. Doc. 58-2198; Filed, Mar. 25, 1958; 8:45 a. m.]

FEDERAL COMMUNICATIONS COMMISSION

[Docket No. 12112; FCC 58-245]

PHILIP D. JACKSON

MEMORANDUM OPINION AND ORDER AMENDING ISSUES

In re applications of Philip D. Jackson, Weed, California, Docket No. 12112, File No. BP-11268; for construction permit.

1. The Commission has before it (1) a Petition to Delete Issue filed by Philip D. Jackson on February 10, 1958, in the subject proceeding; (2) comment of the Chief, Broadcast Bureau, filed February 11, 1958; (3) matters of record in the above-designated proceeding;

2. The Commission is satisfied that under the circumstances and inasmuch as all parties have agreed to the deletion of the issue, retention of the subject issue in the proceeding is not warranted;

3. *It is ordered,* This 19th day of March 1958, that the Petition to Delete Issue No. 3 in the Weed, California, AM proceeding (Docket No. 12112) is hereby granted.

Released: March 20, 1958.

FEDERAL COMMUNICATIONS COMMISSION,
[SEAL] MARY JANE MORRIS, *Secretary.*

[F. R. Doc. 58-2222; Filed, Mar. 25, 1958; 8:49 a. m.]

[Docket Nos. 12278, 12279; FCC 58M-260]

ALBANY BROADCASTING CORP. AND W. GORDON ALLEN

ORDER SCHEDULING HEARING

In re applications of Albany Broadcasting Corporation, Albany, Oregon, Docket No. 12278, File No. BP-10793; W. Gordon Allen, Eugene, Oregon, Docket No. 12279, File No. BP-11173; for construction permits.

Pursuant to agreement of counsel at the prehearing conference held on this date: *It is ordered,* This 19th day of March 1958, that the hearing in the above-entitled proceeding will be held at 10:00 a. m., on April 7, 1958, in Washington, D. C.

Released: March 20, 1958.

FEDERAL COMMUNICATIONS COMMISSION,
[SEAL] MARY JANE MORRIS, *Secretary.*

[F. R. Doc. 58-2223; Filed, Mar. 25, 1958; 8:50 a. m.]

[Docket No. 12285]

STUDY OF RADIO AND TELEVISION NETWORK BROADCASTING

NOTICE OF HEARING

The hearing session scheduled in the above-entitled proceeding for March 25, 1958, has been cancelled.

The hearing will reconvene at 10:00 a. m., Monday, March 31, 1958, for the presentation of testimony by Meredith Publishing Company, Storer Broadcasting Company, and Westinghouse Broadcasting Co., Inc. The hearing will then be continued to 10 a. m., Tuesday, April 8, 1958, at which time the Commission will hear testimony by ABC TV Affiliates Committee and other parties listed in the Order of Appearances issued in this proceeding.

The further hearings in this proceeding will be held in the Commission's Meeting Room (Room No. 7134) New Post Office Building, Washington, D. C.

The following parties listed in the Order of Appearance in this proceeding have indicated that they will not appear and present testimony:

Modern Broadcasting Company.
RKO Teleradio Pictures, Inc.
Southwestern Radio & TV Corp.
Utah Broadcasting & TV Corp.
WKY Television System, Inc.
KFRE-TV, Fresno, California.
WMBC-TV, Peoria, Illinois.
WWF-TV, Detroit, Michigan.

Dated: March 20, 1958.

Released: March 20, 1958.

FEDERAL COMMUNICATIONS COMMISSION,
[SEAL] MARY JANE MORRIS, *Secretary.*

[F. R. Doc. 58-2224; Filed, Mar. 25, 1958; 8:50 a. m.]

[Docket No. 12308; FCC 58M-258]

WISCONSIN TELEPHONE CO.

ORDER CONTINUING HEARING

In the matter of the application of Wisconsin Telephone Company, Docket No. 12308, File No. P-C-4096; for a certificate under section 221 (a) of the Communications Act of 1934, as amended, to acquire the telephone plant and properties of the Menomonee Falls Telephone Company and Lisbon Telephone Corporation, located in and around Menomonee Falls, Germantown and Sussex, Wisconsin.

The Hearing Examiner having under consideration a motion of the Commission's Common Carrier Bureau, filed March 18, 1958, that hearing in the above-entitled proceeding, which is presently scheduled to commence March 26, 1958, be continued to April 23, 1958;

It appearing, that counsel for the Bureau is presently engaged in two other hearings, and it is expected that at least one of them will conflict with the March 26th date aforementioned;

It appearing further, that all parties to the proceeding consent to the postponement herein requested and to a

waiver of the provisions of § 1.43 of the rules to permit immediate consideration of the instant pleading;

It is ordered, This 19th day of March 1958, that the motion is granted and that hearing in the above-entitled proceeding is continued from March 26, 1958 to April 23, 1958.

Released: March 20, 1958.

FEDERAL COMMUNICATIONS COMMISSION,
[SEAL] MARY JANE MORRIS,
Secretary.

[F. R. Doc. 58-2225; Filed, Mar. 25, 1958; 8:50 a. m.]

[Docket No. 12309; FCC 58-248]

VIDEO INDEPENDENT THEATRES, INC. (KVIT)

ORDER CONTINUING ORAL HEARING

In re application of Video Independent Theatres, Inc. (KVIT), Santa Fe, New Mexico, Docket No. 12309, File No. BMPCT-4586; for modification of construction permit.

At a session of the Federal Communications Commission held at its offices in Washington, D. C., on the 19th day of March 1958;

The Commission having under consideration a Petition to Defer Oral Argument in the above-entitled proceeding pending a decision of the United States Court of Appeals For The District of Columbia Circuit in the case of Carroll Broadcasting Company v. Federal Communications Commission (Case No. 14104) filed on February 24, 1958 by Alvarado Television Company, Inc.

It appearing that by Memorandum Opinion and Order released on February 19, 1958 the Commission granted protests of Petitioner and of New Mexico Broadcasting Company, Inc. filed pursuant to the provisions of section 309 (c) of the Communications Act of 1934, as amended and directed against the Commission's action granting without hearing the application of Video Independent Theatres, Inc. for modification of construction permit to change transmitter location and make other changes; postponed effective date of the said grant; ordered evidentiary hearing to commence on March 31, 1958 on certain specified issues; and ordered oral argument on one issue to be held on March 24, 1958; and

It appearing that a continuance as requested may occasion delay in the final determination of the proceeding and should not be granted under the mandate of said section 309 (c) that cases arising under this section shall be expedited; but that other matters have arisen precluding the Commission from hearing argument herein on the date scheduled;

It is ordered, That the said petition is granted insofar as it requests continuance of the date for oral argument and is denied in all other respects and the oral argument ordered herein is continued to 10:00 a. m., April 7, 1958.

Released: March 21, 1958.

FEDERAL COMMUNICATIONS COMMISSION,
[SEAL] MARY JANE MORRIS,
Secretary.

[F. R. Doc. 58-2226; Filed, Mar. 25, 1958; 8:50 a. m.]

[Docket No. 12309; FCC 58M-254]

VIDEO INDEPENDENT THEATRES, INC. (KVIT)

ORDER CONTINUING HEARING

In re application of Video Independent Theatres, Inc. (KVIT), Santa Fe, New Mexico, Docket No. 12309, File No. BMPCT-4586; for modification of construction permit.

In accordance with the ruling at the prehearing conference today: *It is ordered*, This 19th day of March 1958, that the hearing now scheduled for March 31, 1958 is continued to Monday, April 14, 1958, at 10 a. m., in the offices of the Commission, Washington, D. C.

Released: March 19, 1958.

FEDERAL COMMUNICATIONS COMMISSION,
[SEAL] MARY JANE MORRIS,
Secretary.

[F. R. Doc. 58-2227; Filed, Mar. 25, 1958; 8:50 a. m.]

[Docket Nos. 12344-12346; FCC 58M-250]

L. E. U. BROADCASTING CO. ET AL.

In re applications of L. E. U. Broadcasting Co., Erie, Pennsylvania, Docket No. 12344, File No. BPCT-2362; Jet Broadcasting Company, Inc., Erie, Pennsylvania, Docket No. 12345, File No. BPCT-2388; WERC Broadcasting Corporation, Erie, Pennsylvania, Docket No. 12346, File No. BPCT-2402; for construction permits for new television broadcast stations (Channel 66).

NOTICE OF CONFERENCE

Notice is hereby given that a prehearing conference will be held in the above-entitled proceeding at 10:00 a. m. on Tuesday, April 8, 1958, in Washington, D. C.

Dated: March 19, 1958.

Released: March 20, 1958.

FEDERAL COMMUNICATIONS COMMISSION,
[SEAL] MARY JANE MORRIS,
Secretary.

[F. R. Doc. 58-2228; Filed, Mar. 25, 1958; 8:50 a. m.]

[Docket No. 12348; FCC 58-253]

OTTAWAY STATIONS, INC. (WDOS)

ORDER DESIGNATING APPLICATION FOR HEARING ON STATED ISSUES

In re application of Ottaway Stations, Inc. (WDOS), Oneonta, New York, Docket No. 12348, File No. BP-11119; for construction permit.

At a session of the Federal Communications Commission held at its offices in Washington, D. C., on the 19th day of March 1958;

The Commission having under consideration the above-captioned application of Ottaway Stations, Inc., for a construction permit to increase the power of Station WDOS, Oneonta, New York, from 500 watts to one kilowatt and to continue operation on the presently assigned frequency of 730 kilocycles, daytime only; and

It appearing that, except as indicated by the issues specified below, the applicant is legally, technically, financially and otherwise qualified to operate Station WDOS as proposed but that the proposed operation would cause interference to Station WHWL, Nanticoke, Pennsylvania (730 kc, 1 kw, Day); that the interference which would be received from the present operation of Station CKAC, Montreal, Quebec, Canada (730 kc, 5 kw, 10 kw-LS, U) would cause a loss in population which would be excessive under the provisions of § 3.28 (c) of the Commission's rules; that the Commission has been advised that Station CKAC proposes a change in facilities and transmitter location which would reduce the population loss, but that the Canadian authorities have not notified the Commission of a change in operation of Station CKAC; and

It further appearing that, pursuant to section 309 (b) of the Communications Act of 1934, as amended, the subject applicant was advised of the aforementioned interference and that the Commission was unable to conclude that a grant of the application would be in the public interest; and

It further appearing, that by letter of October 21, 1957, Radio Anthracite, Inc., licensee of Station WHWL, expressed an intention of appearing at a hearing on the instant application; and

It further appearing, that, in a reply filed on February 26, 1958, to the Commission's letter, the applicant contended that the present operation of Station CKAC should not be considered in making any determination on the instant application; that adequate justification for a waiver of § 3.28 (c) of the Commission's rules is the anticipated early change in the operation of Station CKAC; and

It further appearing, that the Commission has not yet been notified that Station CKAC has completed construction on the proposed CKAC facilities and that, until such time as CKAC commences operation of its proposed facilities, the proposed operation of Station WDOS would not be in compliance with § 3.28 (c) of the rules; and

It further appearing, that the Commission, after consideration of the above, is of the opinion that a hearing on the application is necessary;

It is ordered, That, pursuant to section 309 (b) of the Communications Act of 1934, as amended, the said application is designated for hearing, at a time and place to be specified in a subsequent order, upon the following issues:

1. To determine the areas and populations which may be expected to gain or lose primary service from the operation of Station WDOS as proposed and the availability of other primary service to such areas and populations.

2. To determine whether the proposed operation of Station WDOS would cause interference to Station WHWL, Nanticoke, Pennsylvania, or any other existing standard broadcast stations, and, if so, the nature and extent thereof, the areas and populations affected thereby, and the availability of other primary service to such areas and populations.

3. To determine whether because of interference received, the proposed operation would comply with § 3.28 (c) of the Commission's rules; and if compliance with § 3.28 (c) is not achieved, whether circumstances exist which would warrant a waiver of said section of the rules.

4. To determine, in the light of the evidence adduced pursuant to the foregoing issues, whether a grant of the instant application would serve the public interest.

It is further ordered, That Radio Anthracite, Inc., licensee of Station WHWL, is made a party to the proceeding.

It is further ordered, That to avail themselves of the opportunity to be heard, the applicant and party respondent herein, pursuant to § 1.140 of the Commission's rules, in person or by attorney, shall, within 20 days of the mailing of this Order, file with the Commission in triplicate, written appearances stating an intention to appear on the date fixed for the hearing and present evidence on the issues specified in this Order.

Released: March 21, 1958.

FEDERAL COMMUNICATIONS COMMISSION,
[SEAL] MARY JANE MORRIS,
Secretary.

[F. R. Doc. 58-2229; Filed, Mar. 25, 1958; 8:51 a. m.]

FEDERAL POWER COMMISSION

[Docket No. G-14683]

LITTLE NICK OIL CO.

ORDER FOR HEARING AND SUSPENDING PROPOSED CHANGES IN RATES

MARCH 20, 1958.

Little Nick Oil Company (Little Nick) on February 24, 1958, tendered for filing proposed changes in its presently effective rate schedules for sales of natural gas subject to the jurisdiction of the Commission. The proposed changes, which constitute increased rates and charges, are contained in the following designated filings:

Description: Notices of change, dated February 21, 1958.

Purchaser: Consolidated Gas Utilities Corporation.

Rate schedule designation: Supplement No. 2 to Little Nick's FPC Gas Rate Schedule No. 1. Supplement No. 2 to Little Nick's FPC Gas Rate Schedule No. 2. Supplement No. 1 to Little Nick's FPC Gas Rate Schedule No. 3. Supplement No. 1 to Little Nick's FPC Gas Rate Schedule No. 4.

Effective date: March 27, 1958 (effective date is the first day after expiration of the required thirty days' notice).

In support of the proposed periodic rate increase, Little Nick states that the increase is provided for in the contract which was negotiated in good faith arm's-length bargaining; that it is fair, just and reasonable, and is necessary to compensate for increased capital and operating costs and to encourage further exploration.

The increased rates and charges so proposed have not been shown to be justified, and may be unjust, unreasonable, unduly discriminatory, or preferential, or otherwise unlawful.

The Commission finds: It is necessary and proper in the public interest and to aid in the enforcement of the provisions of the Natural Gas Act that the Commission enter upon a hearing concerning the lawfulness of the said proposed changes, and that Supplements No. 2 to Little Nick's FPC Gas Rate Schedules Nos. 1 and 2, and Supplements No. 1 to Little Nick's FPC Gas Rate Schedules Nos. 3 and 4, be suspended and the use thereof deferred as hereinafter ordered.

The Commission orders:

(A) Pursuant to the authority of the Natural Gas Act, particularly sections 4 and 15 thereof, the Commission's rules of practice and procedure, and the regulations under the Natural Gas Act (18 CFR Ch. I), a public hearing be held upon a date to be fixed by notice from the Secretary concerning the lawfulness of the proposed increased rates and charges contained in Supplements No. 2 to Little Nick's FPC Gas Rate Schedules Nos. 1 and 2, and Supplements No. 1 to Little Nick's FPC Gas Rate Schedules Nos. 3 and 4.

(B) Pending such hearing and decision thereon, said supplements be and they are each hereby suspended and the use thereof deferred until August 27, 1958, and until such further time as they are made effective in the manner prescribed by the Natural Gas Act.

(C) Neither the supplements hereby suspended, nor the rate schedules sought to be altered thereby, shall be changed until this proceeding has been disposed of or until the periods of suspension have expired, unless otherwise ordered by the Commission.

(D) Interested State commissions may participate as provided by §§ 1.8 and 1.37 (f) of the Commission's rules of practice and procedure (18 CFR 1.8 and 1.37 (f)).

By the Commission (Commissioners Digby and Kline dissenting).

[SEAL] JOSEPH H. GUTRIDE,
Secretary.

[F. R. Doc. 58-2199; Filed, Mar. 25, 1958; 8:45 a. m.]

[Docket No. G-14684]

GASOLINE PRODUCTION CORP. ET AL.

ORDER FOR HEARING AND SUSPENDING PROPOSED CHANGE IN RATES

MARCH 20, 1958.

Gasoline Production Corporation (Operator) et al. (Gasoline Production), on February 20, 1958, tendered for filing a proposed change in its presently effective rate schedule for sales of natural gas subject to the jurisdiction of the Commission. The proposed change, which constitutes an increased rate and charge, is contained in the following designated filing:

Description: Notice of change, dated February 19, 1958.

Purchaser: Texas Eastern Transmission Corporation.

Rate schedule designation: Supplement No. 11 to Gasoline Production's FPC Gas Rate Schedule No. 2.

Effective date: March 23, 1958 (effective date is the first day after expiration of the required thirty day's notice).

In support of the proposed redetermined rate increase, Gasoline Production states, among other things, that the contract was arrived at by arm's-length bargaining and the pricing provision is an integral part of the consideration which was established for the entire volume of gas to be sold during the full contract term.

The increased rate and charge so proposed has not been shown to be justified, and may be unjust, unreasonable, unduly discriminatory, or preferential, or otherwise unlawful.

The Commission finds: It is necessary and proper in the public interest and to aid in the enforcement of the provisions of the Natural Gas Act that the Commission enter upon a hearing concerning the lawfulness of the said proposed change, and that Supplement No. 11 to Gasoline Production's FPC Gas Rate Schedule No. 2 be suspended and the use thereof deferred as hereinafter ordered.

The Commission orders:

(A) Pursuant to the authority of the Natural Gas Act, particularly sections 4 and 15 thereof, the Commission's rules of practice and procedure, and the regulations under the Natural Gas Act (18 CFR Ch. I), a public hearing be held upon a date to be fixed by notice from the Secretary concerning the lawfulness of the proposed increased rate and charge contained in Supplement No. 11 to Gasoline Production's FPC Gas Rate Schedule No. 2.

(B) Pending such hearing and decision thereon, said supplement be and it is hereby suspended and the use thereof deferred until August 23, 1958, and until such further time as it is made effective in the manner prescribed by the Natural Gas Act.

(C) Neither the supplement hereby suspended, nor the rate schedule sought to be altered thereby, shall be changed until this proceeding has been disposed of or until the period of suspension has expired, unless otherwise ordered by the Commission.

(D) Interested State commissions may participate as provided by §§ 1.8 and 1.37 (f) of the Commission's rules of practice and procedure (18 CFR 1.8 and 1.37 (f)).

By the Commission.

[SEAL] JOSEPH H. GUTRIDE,
Secretary.

[F. R. Doc. 58-2200; Filed, Mar. 25, 1958; 8:45 a. m.]

[Docket No. G-14685]

L. R. FRENCH, JR., ET AL.

ORDER FOR HEARING AND SUSPENDING PROPOSED CHANGES IN RATES

MARCH 20, 1958.

L. R. French, Jr. (Operator) et al. (French), on February 24, 1958, tendered for filing proposed changes in his presently effective rate schedules for sales of natural gas subject to the jurisdiction of the Commission. The proposed changes, which constitute increased rates and charges, are contained in the following designated filings:

Description: Notices of change, undated.
Purchaser: El Paso Natural Gas Company.
Rate schedule designation: Supplement No. 1 to French's FPC Gas Rate Schedule No. 1, Supplement No. 1 to French's FPC Gas Rate Schedule No. 2.
Effective date: March 27, 1958 (effective date is the first day after expiration of the required thirty days' notice).

In support of the proposed periodic rate increases, French states that the stipulated price was established by arm's-length bargaining and is an integral part of the consideration.

The increased rates and charges so proposed have not been shown to be justified, and may be unjust, unreasonable, unduly discriminatory, or preferential, or otherwise unlawful.

The Commission finds: It is necessary and proper in the public interest and to aid in the enforcement of the provisions of the Natural Gas Act that the Commission enter upon a hearing concerning the lawfulness of the said proposed changes, and that Supplement No. 1 to French's FPC Gas Rate Schedules Nos. 1 and 2, respectively, be suspended and the use thereof deferred as hereinafter ordered.

The Commission orders:

(A) Pursuant to the authority of the Natural Gas Act, particularly sections 4 and 15 thereof, the Commission's rules of practice and procedure, and the regulations under the Natural Gas Act (18 CFR Ch. I), a public hearing be held upon a date to be fixed by notice from the Secretary concerning the lawfulness of the proposed increased rates and charges contained in Supplement No. 1 to French's FPC Gas Rate Schedules Nos. 1 and 2, respectively.

(B) Pending such hearing and decision thereon, said supplements be and they are each hereby suspended and the use thereof deferred until August 27, 1958, and until such further time as they are made effective in the manner prescribed by the Natural Gas Act.

(C) Neither the supplements hereby suspended, nor the rate schedules sought to be altered thereby, shall be changed until this proceeding has been disposed of or until the periods of suspension have expired, unless otherwise ordered by the Commission.

(D) Interested State commissions may participate as provided by §§ 1.8 and 1.37 (f) of the Commission's rules of practice and procedure (18 CFR 1.8 and 1.37 (f)).

By the Commission (Commissioners Digby and Kline dissenting).

[SEAL] JOSEPH H. GUTRIDE, *Secretary.*

[F. R. Doc. 58-2201; Filed, Mar. 25, 1958; 8:45 a. m.]

[Docket No. G-14686]

PHILLIPS PETROLEUM CO. ET AL.

ORDER FOR HEARING AND SUSPENDING PROPOSED CHANGE IN RATES

MARCH 20, 1958.

Phillips Petroleum Company (Operator) et al. (Phillips) on February 24, 1958, tendered for filing a proposed change in its presently effective rate schedule for sales of natural gas subject to the jurisdiction of the Commission. The proposed change, which constitutes an increased rate and charge, is contained in the following designated filing:

Description: Notice of change, dated February 21, 1958.
Purchaser: Consolidated Gas Utilities Corporation.
Rate schedule designation: Supplement No. 3 to Phillips' FPC Gas Rate Schedule No. 150.
Effective date: March 27, 1958 (effective date is the first day after expiration of the required thirty days' notice).

In support of the proposed periodic rate increase, Phillips states that the increase is provided for in the contract which was negotiated in good faith arm's-length bargaining; that it is fair, just and reasonable, and is necessary to compensate for increased capital and operating costs and to encourage further exploration. Phillips further states that the increase will do no more than reduce the deficiency in its jurisdictional revenues since the indicated price for this gas on the basis of exhibits submitted by Phillips in Docket No. G-1148 is 18.5¢ per Mcf.

The increased rate and charge so proposed has not been shown to be justified, and may be unjust, unreasonable, unduly discriminatory, or preferential, or otherwise unlawful.

The Commission finds: It is necessary and proper in the public interest and to aid in the enforcement of the provisions of the Natural Gas Act that the Commission enter upon a hearing concerning the lawfulness of the said proposed change, and that Supplement No. 3 to Phillips' FPC Gas Rate Schedule No. 150 be suspended and the use thereof deferred as hereinafter ordered.

The Commission orders:

(A) Pursuant to the authority of the Natural Gas Act, particularly sections 4 and 15 thereof, the Commission's rules of practice and procedure, and the regulations under the Natural Gas Act (18 CFR Ch. I), a public hearing be held upon a date to be fixed by notice from the Secretary concerning the lawfulness of the proposed increased rate and charge contained in Supplement No. 3 to Phillips' FPC Gas Rate Schedule No. 150.

(B) Pending such hearing and decision thereon, said supplement be and it is hereby suspended and the use thereof deferred until August 27, 1958, and until such further time as it is made effective in the manner prescribed by the Natural Gas Act.

(C) Neither the supplement hereby suspended, nor the rate schedule sought to be altered thereby, shall be changed until this proceeding has been disposed of or until the period of suspension has expired, unless otherwise ordered by the Commission.

(D) Interested State commissions may participate as provided by §§ 1.8 and 1.37 (f) of the Commission's rules of practice and procedure (18 CFR 1.8 and 1.37 (f)).

By the Commission (Commissioners Digby and Kline dissenting).

[SEAL] JOSEPH H. GUTRIDE, *Secretary.*

[F. R. Doc. 58-2202; Filed, Mar. 25, 1958; 8:46 a. m.]

[Docket No. G-14687]

TIDEWATER OIL CO. ET AL.

ORDER FOR HEARING AND SUSPENDING PROPOSED CHANGE IN RATES

MARCH 20, 1958.

Tidewater Oil Company (Operator) et al. (Tidewater), on February 24, 1958, tendered for filing a proposed change in its presently effective rate schedule for sales of natural gas subject to the jurisdiction of the Commission. The proposed change, which constitutes an increased rate and charge, is contained in the following designated filing:

Description: Notice of change, dated February 21, 1958.
Purchaser: Texas Eastern Transmission Corporation.
Rate schedule designation: Supplement No. 18 to Tidewater's FPC Gas Rate Schedule No. 7.
Effective date: March 27, 1958 (effective date is the first day after expiration of the required thirty days' notice).

In support of the proposed redetermined rate increase, Tidewater states among other things, that the contract was arrived at by arm's-length bargaining and the pricing provision is an integral part of the consideration which was established for the entire volume of gas to be sold during the full contract term.

The increased rate and charge so proposed has not been shown to be justified, and may be unjust, unreasonable, unduly discriminatory, or preferential, or otherwise unlawful.

The Commission finds: It is necessary and proper in the public interest and to aid in the enforcement of the provisions of the Natural Gas Act that the Commission enter upon a hearing concerning the lawfulness of the said proposed change, and that Supplement No. 18 to Tidewater's FPC Gas Rate Schedule No. 7 be suspended and the use thereof deferred as hereinafter ordered.

The Commission orders:

(A) Pursuant to the authority of the Natural Gas Act, particularly sections 4 and 15 thereof, the Commission's rules of practice and procedure, and the regulations under the Natural Gas Act (18 CFR Ch. I), a public hearing be held upon a date to be fixed by notice from the Secretary concerning the lawfulness of the proposed increased rate and charge contained in Supplement No. 18 to Tidewater's FPC Gas Rate Schedule No. 7.

(B) Pending such hearing and decision thereon, said supplement be and it is hereby suspended and the use thereof deferred until August 27, 1958, and until such further time as it is made effective in the manner prescribed by the Natural Gas Act.

(C) Neither the supplement hereby suspended, nor the rate schedule sought to be altered thereby, shall be changed until this proceeding has been disposed of or until the period of suspension has expired, unless otherwise ordered by the Commission.

(D) Interested State commissions may participate as provided by §§ 1.8 and 1.37 (f) of the Commission's rules of practice and procedure (18 CFR 1.8 and 1.37 (f)).

By the Commission.

[SEAL] JOSEPH H. GUTRIDE, *Secretary.*

[F. R. Doc. 58-2203; Filed, Mar. 25, 1958; 8:46 a. m.]

[Docket No. G-14688]

MAGNOLIA PETROLEUM CO.

ORDER FOR HEARING AND SUSPENDING PROPOSED CHANGE IN RATES

MARCH 20, 1958.

Magnolia Petroleum Company (Magnolia) on February 19, 1958, tendered for filing a proposed change in its presently effective rate schedule for sales of natural gas subject to the jurisdiction of the Commission. The proposed change, which constitutes an increased rate and charge, is contained in the following designated filing:

Description: Notice of change, undated.
Purchaser: El Paso Natural Gas Company.
Rate schedule designation: Supplement No. 4 to Magnolia's FPC Gas Rate Schedule No. 90.
Effective date: March 22, 1958 (effective date is the first day after expiration of the required thirty days' notice).

In support of the proposed favored-nation rate increase, Magnolia submits a copy of a letter from El Paso Natural Gas Company notifying of the 10.5¢ price due under the favored-nation provision of the contract. In addition, Magnolia states, among other things, that the proposed price accurately reflects the commodity value of the gas where produced and any attempt by the Commission to freeze the price below the contract price is confiscatory.

The increased rate and charge so proposed has not been shown to be justified, and may be unjust, unreasonable, unduly discriminatory, or preferential, or otherwise unlawful.

The Commission finds: It is necessary and proper in the public interest and to aid in the enforcement of the provisions of the Natural Gas Act that the Commission enter upon a hearing concerning the lawfulness of the said proposed change, and that Supplement No. 4 to Magnolia's FPC Gas Rate Schedule No. 90 be suspended and the use thereof deferred as hereinafter ordered.

The Commission orders:

(A) Pursuant to the authority of the Natural Gas Act, particularly sections 4 and 15 thereof, the Commission's rules of practice and procedure, and the regulations under the Natural Gas Act (18 CFR Ch. I), a public hearing be held upon a date to be fixed by notice from the Secretary concerning the lawfulness of the proposed increased rate and charge contained in Supplement No. 4 to Magnolia's FPC Gas Rate Schedule No. 90.

(B) Pending such hearing and decision thereon, said supplement be and it is hereby suspended and the use thereof deferred until August 22, 1958, and until such further time as it is made effective in the manner prescribed by the Natural Gas Act.

(C) Neither the supplement hereby suspended, nor the rate schedule sought to be altered thereby, shall be changed until this proceeding has been disposed of or until the period of suspension has expired, unless otherwise ordered by the Commission.

(D) Interested State commissions may participate as provided by §§ 1.8 and 1.37 (f) of the Commission's rules of practice and procedure (18 CFR 1.8 and 1.37 (f)).

By the Commission (Commissioner Kline dissenting).

[SEAL] JOSEPH H. GUTRIDE, *Secretary.*

[F. R. Doc. 58-2204; Filed, Mar. 25, 1958; 8:46 a. m.]

[Docket No. G-14689]

CARTER OIL CO.

ORDER FOR HEARING AND SUSPENDING PROPOSED CHANGE IN RATES

MARCH 20, 1958.

The Carter Oil Company (Carter) on February 24, 1958, tendered for filing a proposed change in its presently effective rate schedule for sales of natural gas subject to the jurisdiction of the Commission. The proposed change, which constitutes an increased rate and charge, is contained in the following designated filing:

Description: Notice of Change, dated January 15, 1958.
Purchaser: Lone Star Gas Company.
Rate schedule designation: Supplement No. 2 to Carter's FPC Gas Rate Schedule No. 56.
Effective date: March 27, 1958 (effective date is the first day after expiration of the required thirty days' notice).

In support of the proposed periodic rate increase, Carter states that the increase is provided for in the contract which was negotiated in good faith arm's-length bargaining; that it is fair, just and reasonable, and is necessary to compensate for increased capital and operating costs and to encourage further exploration. Carter further states that similar gas is being sold in intrastate commerce in the area for 11.0¢ per Mcf.

The increased rate and charge so proposed has not been shown to be justified, and may be unjust, unreasonable, unduly discriminatory, or preferential, or otherwise unlawful.

The Commission finds: It is necessary and proper in the public interest and to aid in the enforcement of the provisions of the Natural Gas Act that the Commission enter upon a hearing concerning the lawfulness of the said proposed change, and that Supplement No. 2 to Carter's FPC Gas Rate Schedule No. 56 be suspended and the use thereof deferred as hereinafter ordered.

The Commission orders:

(A) Pursuant to the authority of the Natural Gas Act, particularly sections 4 and 15 thereof, the Commission's rules of practice and procedure, and the regulations under the Natural Gas Act (18 CFR Ch. I), a public hearing be held upon a date to be fixed by notice from the Secretary concerning the lawfulness of the proposed increased rate and charge contained in Supplement No. 2 to Carter's FPC Gas Rate Schedule No. 56.

(B) Pending such hearing and decision thereon, said supplement be and it is hereby suspended and the use thereof deferred until August 27, 1958, and until such further time as it is made effective in the manner prescribed by the Natural Gas Act.

(C) Neither the supplement hereby suspended, nor the rate schedule sought to be altered thereby, shall be changed until this proceeding has been disposed of or until the period of suspension has expired, unless otherwise ordered by the Commission.

(D) Interested State commissions may participate as provided by §§ 1.8 and 1.37 (f) of the Commission's rules of practice and procedure (18 CFR 1.8 and 1.37 (f)).

By the Commission (Commissioners Digby and Kline dissenting).

[SEAL] JOSEPH H. GUTRIDE, *Secretary.*

[F. R. Doc. 58-2205; Filed, Mar. 25, 1958; 8:46 a. m.]

[Docket No. G-12453, etc.]

DAN J. HARRISON, JR., ET AL.

NOTICE OF APPLICATIONS AND DATE OF HEARING

MARCH 20, 1958.

In the matters of* Dan J. Harrison, Jr., Operator, et al.,[1] Docket No. G-12453; The Texas Company, Docket No. G-12455; R. R. Greenbaum, d. b. a. Time Petroleum Co., Operator, et al.,[2] Docket No. G-12456; Sinclair Oil and Gas Company,[3] Docket No. G-12464; Sinclair Oil and Gas Company,[4] Docket No. G-12465;

*See footnotes at end of document.

Gulf Oil Corporation, Operator,[8] Docket No. G–12475; Katz Oil Company, Operator, et al.,[4] Docket No. G–12476; Kewanee Oil Company, Docket No. G–12478; Graham-Michaelis Drilling Company, Operator, et al.,[7] Docket No. G–12490; Graham-Michaelis Drilling Company, Operator, et al.,[8] Docket No. G–12491; Skelly Oil Company, Docket No. G–12492; J. C. Trahan Drilling Contractor, Inc., Operator, et al.,[9] Docket No. G–12501; Gulf Oil Corporation, Docket No. G–12504.

Take notice that each of the above-designated parties, hereinafter referred to as Applicants, has filed an application for a certificate of public convenience and necessity, pursuant to section 7 of the Natural Gas Act, authorizing the sale of natural gas as hereinafter described, subject to the jurisdiction of the Commission, all as more fully represented in the respective applications which are on file with the Commission and open to public inspection.

Applicants produce and propose to sell natural gas for transportation in interstate commerce for resale as indicated below.

Docket No. G–; Location of Field; and Buyer

12453; Robinson Lake Field, Chambers County, Texas; Texas Gas Corporation.

12455; Singley and Sanders N. E. Greenough Fields, Meade County, Kansas, and Beaver County, Oklahoma; Panhandle Eastern Pipe Line Company.

12456; Acreage in Barber County, Kansas; Cities Service Gas Company.

12464; Grand Valley Field, Texas County, Oklahoma; Natural Gas Pipeline Company of America.

12465; Grand Valley Field, Beaver County, Oklahoma; Natural Gas Pipeline Company of America.

12475; Camrick Pool, Beaver County, Oklahoma; Natural Gas Pipeline Company of America.

12476; Dunn Field, Sandia Area, Jim Wells County, Texas; Trunkline Gas Company.

12478; Nichols Field, Kiowa County, Kansas; Panhandle Eastern Pipe Line Company.

12490; Hugoton Field, Kearny and Hamilton Counties, Kansas; Kansas-Nebraska Natural Gas Company, Inc.

12491; McKinney Field, Clark County, Kansas; Northern Natural Gas Company.

12492; San Juan Basin Field, Rio Arriba County, New Mexico; El Paso Natural Gas Company.

12501; Longstreet Area, De Soto Parish, Louisiana; Texas Eastern Transmission Corporation.

12504; Rhodes Pool, Barber County, Kansas; Cities Service Gas Company.

These matters should be heard on a consolidated record and disposed of as promptly as possible under the applicable rules and regulations and to that end:

Take further notice that, pursuant to the authority contained in and subject to the jurisdiction conferred upon the Federal Power Commission by sections 7 and 15 of the Natural Gas Act, and the Commission's rules of practice and procedure, a hearing will be held on April 23, 1958, at 9:30 a. m., e. s. t., in a hearing room of the Federal Power Commission, 441 G Street NW., Washington, D. C., concerning the matters involved in and the issues presented by such applications: *Provided, however,* That the Commission may, after a non-contested hearing, dispose of the proceedings pursuant to the provisions of § 1.30 (c) (1) or (2) of the Commission's rules of practice and procedure. Under the procedure herein provided for, unless otherwise advised it will be unnecessary for Applicants to appear or be represented at the hearing.

Protests or petitions to intervene may be filed with the Federal Power Commission, Washington 25, D. C., in accordance with the rules of practice and procedure (18 CFR 1.8 or 1.10) on or before April 18, 1958. Failure of any party to appear at and participate in the hearing shall be construed as waiver of and concurrence in omission herein of the intermediate decision procedure in cases where a request therefor is made.

[SEAL] JOSEPH H. GUTRIDE,
Secretary.

[1] Dan J. Harrison, Jr., Operator, is filing for himself and on behalf of the following nonoperators: A. J. Tamborello, Frank Tamborello, Russell Thorstenberg and Harry K. Smith and A. K. Smith, d. b. a. Smith Mining and Exploration Company. All are signatory seller parties to the gas sales contract dated February 25, 1957.

[2] R. R. Greenbaum, d. b. a. Time Petroleum Company, Operator, is filing for himself and on behalf of the following nonoperators: E. C. Stewart, O. H. Stewart, K. S. Stewart and E. M. Curry, partners, d. b. a. Globe Construction Company; C. E. Witherspoon and Richard Laux, d. b. a. Witlo Oil Company; Henry L. Moses; Lucy G. Moses; W. L. Hernstadt; W. W. McClure and R. J. Schreiner. All are signatory seller parties to the gas sales contract dated April 11, 1597.

[3] Sinclair Oil and Gas Company, nonoperator, is filing for its 15.625 percent interest in production from the Gilliland Unit No. 1 which is to be sold pursuant to a ratification agreement dated February 11, 1957, of a basic contract dated February 21, 1955, as amended, between The Texas Company, Seller, and Natural Gas Pipeline Company of America, Buyer. The Texas Company was authorized in Docket No. G–8820 covering the sale under the basic contract. Applicant and Purchaser are both signatory parties to the subject ratification agreement. Production is limited to horizons down to base of Morrow Sands.

[4] Sinclair Oil and Gas Company, nonoperator, is filing for its 12.50 percent interest in production from the Gulf Coast Western "B" Unit which is to be sold pursuant to a ratification agreement dated February 11, 1957, of a basic contract dated January 6, 1956, between The Atlantic Refining Company, Seller, and Natural Gas Pipeline Company of America, Buyer. Atlantic was authorized in Docket No. G–9980 to sell gas under the basic contract. Applicant and Purchaser are both signatory parties to the subject ratification agreement. Supplement filed June 13, 1957, covers proposed sale of natural gas under an amendatory agreement dated April 22, 1957, which adds additional acreage to Applicant's above-mentioned ratification agreement.

[5] Gulf Oil Corporation, Operator, is filing for itself and lists the following owners of working interests in production from a 640-acre gas unit: Gulf Oil Corporation, Operator; Edwin L. Cox; and The Texas Company. Nonoperators have each negotiated separate contracts with Purchaser to dispose of their proportionate shares of the gas produced. Applicant proposes to sell its share of the gas pursuant to a ratification agreement dated February 20, 1957, of a basic contract dated February 21, 1955, as amended, between The Texas Company, Seller, and Natural Gas Pipeline Company of America, Buyer. The Texas Company was authorized in Docket No. G–8820 to sell gas under the basic contract. Applicant and Purchaser are both signatory parties to the subject ratification agreement.

[6] Katz Oil Company, Operator, is filing for itself and on behalf of the following nonoperators: Conroe Drilling Company, B. M. Easley, G. R. Swantner and Milton B. Clapp. All are signatory seller parties to the gas sales contract dated April 12, 1957.

[7] Graham-Michaelis Drilling Company, Operator, is a partnership composed of William L. Graham, Marjorie Lois Graham and W. A. Michaelis, Jr., which is filing for its 21.9 percent interest in production from the subject unit and on behalf of the following nonoperators: W. E. Eafeld and A. Unrein, 3.1 percent each; and William Graham Oil Company, a copartnership composed of William L. Graham and Marjorie Lois Graham, 21.9 percent. All of the above-named individuals are signatory seller parties to the gas sales contract dated January 22, 1957. Kansas-Nebraska Natural Gas Company, Inc., Purchaser, owns the remaining 50 percent working interest in the subject unit.

[8] Graham-Michaelis Drilling Company, Operator, is a partnership composed of William L. Graham, Marjorie Lois Graham and W. A. Michaelis, Jr., which is filing for itself and on behalf of nonoperating owners of working interests as follows: Udo Reinach, Leonard Yassen, G. Everett Gaillard and Minnie and Flo Duncan; William Graham Oil Company and Graham-Michaelis Drilling Company. The above-named individuals comprising Graham-Michaelis Drilling Company are the only signatory seller parties to the gas sales contract dated October 5, 1956.

[9] J. C. Trahan Drilling Contractor, Inc., Operator; Hudson Gas & Oil Corporation; Columbian Carbon Company; M. R. Rosen Estate, Sam Siegel; Schuler Estate and Jonnie S. Rodger are filing jointly for their interest in production from the Adams Unit No. 1 to be sold pursuant to a ratification agreement dated April 11, 1957, of a basic contract dated August 15, 1955, between Ralph R. Gilster, et al., Sellers, and Texas Eastern Transmission Corporation, Buyer. Ralph R. Gilster, et al., received authorization in Docket No. G–9418 to sell gas under the basic contract. All of the above-named Applicants are signatory parties to the subject ratification agreement which has also been signed by purchaser.

[F. R. Doc. 58–2206; Filed, Mar. 25, 1958; 8:47 a. m.]

INTERSTATE COMMERCE COMMISSION

FOURTH SECTION APPLICATIONS FOR RELIEF

MARCH 21, 1958.

Protests to the granting of an application must be prepared in accordance with Rule 40 of the general rules of practice (49 CFR 1.40) and filed within 15 days from the date of publication of this notice in the FEDERAL REGISTER.

LONG-AND-SHORT HAUL

FSA No. 34556: *Superphosphate—South Florida points to Chicago Heights, Ill.* Filed by O. W. South, Jr., Agent (SFA No. A3612), for interested rail carriers. Rates on superphosphate (acid phosphate), other than defluorinated, in bulk, carloads from specified south Florida points to Chicago Heights, Ill.

Grounds for relief: Rail-barge-truck competition.

Tariff: Supplement 28 to Agent Spaninger's tariff I. C. C. 1568.

FSA No. 34557: *Superphosphate—South Florida to Dubuque, Iowa.* Filed

by O. W. South, Jr., Agent (SFA No. A3613), for interested rail carriers. Rates on superphosphate (acid phosphate), other than defluorinated, in bulk, carloads from specified south Florida points to Dubuque, Iowa.

Grounds for relief: Rail-barge-rail competition.

Tariff: Supplement 28 to Agent Spaninger's tariff I. C. C. 1568.

FSA No. 34558: *Superphosphate—South Florida points to Memphis, Tenn.* Filed by O. W. South, Jr., Agent (SFA No. A3614), for interested rail carriers. Rates on superphosphate (acid phosphate), other than defluorinated, in bulk, carloads from Bartow, Fla., and other specified points in south Florida to Memphis, Tenn.

Grounds for relief: Rail-barge-rail competition.

Tariff: Supplement 113 to Agent Spaninger's tariff I. C. C. 1510.

FSA No. 34559: *Superphosphate—South Florida points to Ohio River Crossings.* Filed by O. W. South, Jr., Agent (SFA No. A3615), for interested rail carriers. Rates on superphosphate (acid phosphate), other than defluorinated, in bulk, carloads from specified south Florida points to Louisville, Ky., Jeffersonville and New Albany, Ind.

Grounds for relief: Rail-barge-truck competition.

Tariff: Supplement 113 to Agent Spaninger's tariff I. C. C. 1510.

FSA No. 34560: *Superphosphate—South Florida points to East Clinton, Iowa.* Filed by O. W. South, Jr., Agent (SFA No. A3616), for interested rail carriers. Rates on superphosphate (acid phosphate), other than defluorinated, in bulk, carloads from specified points in Florida to East Clinton, Iowa.

Grounds for relief: Rail-barge-rail competition.

Tariff: Supplement 28 to Agent Spanninger's tariff I. C. C. 1568.

By the Commission.

[SEAL] HAROLD D. McCOY, *Secretary.*

[F. R. Doc. 58-2208; Filed, Mar. 25, 1958; 8:47 a. m.]

[Notice 29]

MOTOR CARRIER ALTERNATE ROUTE DEVIATION NOTICES

MARCH 21, 1958.

The following letter-notices of proposals to operate over deviation routes for operating convenience only with no service at intermediate points have been filed with the Interstate Commerce Commission, under the Commission's Deviation Rules Revised, 1957 (49 CFR 211.1 (c) (8)) and notice thereof to all interested persons is hereby given as provided in such rules (49 CFR 211.1 (d) (4)).

Protests against the use of any proposed deviation route herein described may be filed with the Interstate Commerce Commission in the manner and form provided in such rules (49 CFR 211.1 (e)) at any time but will not operate to stay commencement of the proposed operation unless filed within 30 days from the date of publication.

Successively filed letter-notices of the same carrier under the Commission's Deviation Rules Revised, 1957, will be numbered consecutively for convenience in identification and protests if any should refer to such letter-notices by number.

MOTOR CARRIERS OF PROPERTY

No. MC-5908 (Deviation No. 2), TRUCK TRANSPORT COMPANY, 3601 Wyoming, Dearborn, Mich., filed March 13, 1958. Carrier proposes to operate as a *common carrier* by motor vehicle of *general commodities*, with certain exceptions, over a deviation route between Buffalo, N. Y., and Ripley, N. Y., as follows: from Buffalo over the New York Thruway and access routes to Ripley, and return over the same route, for operating convenience only, serving no intermediate points. The notice indicates that the carrier is presently authorized to transport the same commodities over the following pertinent route: from Ripley over U. S. Highway 20 via Westfield, N. Y., to junction U. S. Highway 62, and thence over U. S. Highway 62, via Martinsville, N. Y., to Niagara Falls (also from Westfield, N. Y., over New York Highway 17 to junction New York Highway 5, thence over New York Highway 5 to Buffalo, N. Y., and thence over New York Highway 384 to Niagara Falls), and return over the same route.

No. MC-5908 (Deviation No. 3), TRUCK TRANSPORT COMPANY, 3601 Wyoming, Dearborn, Mich., filed March 13, 1958. Carrier proposes to operate as a *common carrier* by motor vehicle of *general commodities*, with certain exceptions, over a deviation route, between Interchange No. 1 of the Indiana Toll Road and Interchange No. 11 of such toll road, over the Indiana Toll Road, for operating convenience only, serving no intermediate points. The notice indicates that the carrier is presently authorized to transport the same commodities over the following pertinent routes: between Detroit, Mich., and Waukegan, Ill., as follows: from Detroit over U. S. Highway 112 via Cambridge Junction, Mich., to Somerset Center, Mich. (also from Cambridge Junction, Mich., over Michigan Highway 50 to Jackson, Mich., thence over unnumbered highway (formerly U. S. Highway 127) to Somerset Center, Mich.) thence over U. S. Highway 112 to Mottville, Mich., thence over U. S. Highway 131 to junction Indiana Highway 15, thence over Indiana Highway 15 to junction Indiana Highway 120, thence over Indiana Highway 120 to Elkhart, Ind., thence over U. S. Highway 20 via Springville, Ind., to Chicago, Ill. (also from Mottville, Mich., over U. S. Highway 112 to junction Michigan Highway 205, thence over Michigan Highway 205 to the Michigan-Indiana State line, thence over Indiana Highway 19 to Nappanee, Ind., thence over U. S. Highway 6 to junction U. S. Highway 41, thence over U. S. Highway 41 to Chicago, Ill.) (also from Springville, Ind., over U. S. Highway 20 to junction U. S. Highway 35, thence over U. S. Highway 35 to Michigan City, Ind., thence over U. S. Highway 12 to Chicago, Ill.), thence over U. S. Highway 41 to junction Illinois Highway 120 (formerly Illinois Highway 20), and thence over Illinois Highway 120 to Waukegan (also from Chicago, Ill., over Illinois Highway 42 to Waukegan); between Elkhart, Ind., and Toledo, Ohio, as follows: from Elkhart over U. S. Highway 20 to junction Ohio Highway 120 (formerly Business Route U. S. Highway 20), thence over Ohio Highway 120 to Toledo; between Nappanee, Ind., and Sandusky, Ohio, as follows: from Nappanee over U. S. Highway 6 to junction unnumbered highway (formerly U. S. Highway 6), thence over unnumbered highway via Melborn, Ohio, to junction U. S. Highway 6, near Bryan, Ohio, and thence over U. S. Highway 6 to Sandusky; between Detroit, Mich., and Michigan City, Ind., as follows: from Detroit over Michigan Highway 17, to junction U. S. Highway 12, thence over U. S. Highway 12 to junction Michigan Highway 60, thence over Michigan Highway 60 to junction U. S. Highway 12, at New Buffalo, Mich., and thence over U. S. Highway 12 to Michigan City; and between junction U. S. Highway 112 and Michigan Highway 205, and Michigan City, Ind., as follows: from junction U. S. Highway 112 and Michigan Highway 205 over U. S. Highway 112 to junction U. S. Highway 12, and thence over U. S. Highway 12 to Michigan City.

No. MC-66562 (Deviation No. 1), RAILWAY EXPRESS AGENCY, 219 East 42d Street, New York, N. Y., filed March 10, 1958. Carrier proposes to operate as a *common carrier* by motor vehicle of *general commodities*, with certain exceptions, over a deviation route, between Morgantown, W. Va., and Fairmont, W. Va., as follows: from Morgantown over West Virginia Highway 73 to Fairmont, and return over the same route, for operating convenience only, serving no intermediate points. The notice indicates that the carrier is presently authorized to transport the same commodities between Morgantown, W. Va., and Fairmont, W. Va., over U. S. Highway 19.

No. MC-70151 (Deviation No. 1), UNITED TRUCKING SERVICE, INCORPORATED, 3047 Lonyo Road, Detroit, Mich., filed March 13, 1958. Carrier proposes to operate as a *common carrier*, by motor vehicle of *general commodities*, with certain exceptions, over a deviation route, between Charlotte, Mich., and Huntington, Ind., as follows: from Charlotte over Michigan Highway 78 to the Michigan-Indiana State Line, and thence over Indiana Highway 9 to Huntington, and return over the same route, for operating convenience only, serving no intermediate points. The notice indicates that the carrier is presently authorized to transport the same commodities between Charlotte, Mich., and Huntington, Ind., as follows: from Charlotte over U. S. Highway 27 to Fort Wayne, Ind., and thence over U. S. Highway 24 to Huntington, Ind.

No. MC-105923 (Deviation No. 1), GULF COAST EXPRESS, INC., 2400 Capitol, Houston, Tex., filed March 17, 1958. Carrier proposes to operate as a *common carrier* by motor vehicle of

general commodities, with certain exceptions, over a deviation route, between Houston, Tex., and Virginia Point, Tex., as follows: from Houston over the Gulf Freeway to Virginia Point, and return over the same route, for operating convenience only, serving no intermediate points. The notice indicates that the carrier is presently authorized to transport the same commodities between Houston, Tex., and Virginia Point, Tex., as follows: from Houston over Texas Highway 35 to Alvin, Tex., and thence over Texas Highway 6 to Virginia Point.

By the Commission.

[SEAL] HAROLD D. McCOY, *Secretary.*

[F. R. Doc. 58-2210; Filed, Mar. 25, 1958; 8:47 a. m.]

TARIFF COMMISSION

[List No. S-7-4]

STEREOSCOPIC PHOTOGRAMMETRIC PROJECTION INSTRUMENTS

ACTION ON COMPLAINT SUSPENDED

MARCH 20, 1958.

On March 20, 1958, the Tariff Commission suspended action, pending the outcome of certain patent litigation, on a complaint under section 337 of the Tariff Act of 1930 filed by Kelsh Instrument Company, 1031 East Baltimore Street, Baltimore, Maryland, alleging unfair methods of competition and unfair acts in the importation and sale in the United States of certain stereoscopic photogrammetric projection instruments (map-making instruments). Notice of receipt of the complaint was issued by the Commission on October 17, 1957, and published in 22 F. R. 8298.

The action of the Commission was based in part on the fact that certain patents involved in the complaint are the subject of a pending patent suit in the Federal Courts.

Issued: March 21, 1958.

By order of the Commission.

[SEAL] DONN N. BENT, *Secretary.*

[F. R. Doc. 58-2216; Filed, Mar. 25, 1958; 8:48 a. m.]

[Investigation 33]

TUNGSTEN ORE AND CONCENTRATES

INVESTIGATION INSTITUTED

Pursuant to a resolution adopted March 19, 1958 by the Committee on Finance, United States Senate, the United States Tariff Commission, on the 20th day of March 1958, instituted an investigation under the provisions of section 332 of the Tariff Act of 1930, as amended, of the conditions of competition in the United States between tungsten ore and concentrates produced in the United States and in foreign countries.

The Committee resolution provides that in its report to the Committee of the results of the investigation the Commission shall set forth a summary of the facts obtained in the investigation, including a description of the domestic industry, domestic production, foreign production, comparative costs of domestic and foreign production including labor costs, imports, consumption, channels and methods of distribution, prices including comparative London and New York prices quoted by foreign producers, United States exports, United States customs treatment since 1930, the impact of the government purchase program authorized under Title III of the Defense Production Act of 1950 on domestic production and the possible effect of the termination of that program on world prices and domestic production, and other factors affecting the competition between domestic and imported tungsten ore and concentrates.

The Committee resolution requires the Tariff Commission to hold hearings in connection with the investigation and to give adequate opportunity to interested parties to appear and to be heard. Announcement regarding hearings in connection with this investigation will be made at a future date.

Issued: March 20, 1958.

By order of the Commission.

[SEAL] DONN N. BENT, *Secretary.*

[F. R. Doc. 58-2217; Filed, Mar. 25, 1958; 8:48 a. m.]