



U. S. DEPARTMENT OF AGRICULTURE
Agricultural Marketing Service
Dairy Programs
Dairy Grading Branch

DA INSTRUCTION 918-PS

Instructions for
DAIRY PLANT SURVEYS

U.S. DEPARTMENT OF AGRICULTURE
Agricultural Marketing Service
Dairy Programs
Dairy Grading Branch
1400 Independence Ave., S. W.
Washington, DC 20250-0230

DA INSTRUCTION NO. 918-PS

**INSTRUCTIONS FOR
DAIRY PLANT SURVEYS**

This document has been prepared using all available, pertinent information. It has been reviewed by appropriate Washington, D.C. and field employees for accuracy and usefulness. All persuasive review comments have been incorporated.

ISSUANCE HISTORY

Initially Issued	June 18, 1998
Revision of pages G-5 and G-6	October 24, 1998
Pages 4, 8, 18-28; Page A 19-22, 29-34, 44-49, 77-80	September 1, 1999
Page B 28, 34-35; Page C 5-8, 11, 17, 22-23	September 1, 1999
Page D 19, 31-42; Page K 11; Page W 20	September 1, 1999
Page Z entire section updated, Exhibits 4 & 5 added	September 1, 1999
Pages B, C, D, K, W	September 1, 1999
Page A	December 2, 1999
Pages 1-40, Page Z	January 13, 2000
Page D	February 2, 2002
Page A	December 26, 2002
Page M	January 29, 2003
Page A	January 5, 2004
Page B	January 10, 2004
Page C	January 13, 2004
Page G and Page K	January 30, 2004
Page N-18, and N-25	January 31, 2004
Page W, Table of Contents, Index	February 18, 2004
Page 13, Page B-1, Page C-38, Page Z-3	August 3, 2004

/s/ Duane R. Spomer

Duane R. Spomer, Chief
Dairy Grading Branch

August 4, 2004

Date

Table of Contents

NOTICE TO INSPECTORS

General Instructions for Performing Dairy Plant Surveys	1
I. Performance of Plant Surveys	
A. Prerequisites to Performing Inspection.	3
B. Inspector's Apparel and Appearance	4
C. Survey to Be Unannounced	4
D. Arrangements with Management for the Inspection	6
E. Extent of Survey Coverage	6
F. Inspection requirements	6
G. Requirements for Listing in The <i>Approved Plant Book</i>	6
H. Survey Frequency	7
I. Cursory Surveys	8
J. Procedure to Follow When a Multi-product Plant Has a Different Status for One or More Codes	9
K. Short Term Follow-up Surveys (30 Days or Less)	9
1. Caused by Category A or B Deficiencies	10
2. Caused by Category C and D Deficiencies.	10
L. Long Term Follow-up Surveys (More than 30 Days)	11
M. Survey Frequency for Drying Operations and Dry Products Packaging Operations Which Are Under the USDA Salmonella Surveillance Program	11
N. Inspection Emphasis	11
O. Grandfather Exemption for Plant Equipment	12
Application I	13
Application II	13
1. The New Facility Is an Expansion or Remodeling of an Existing Building, or a New Building at the Same Site	14
2. The New Facility Is at a New Site Separate from the Original Facility .	14
P. Safety Precautions in Plant Inspection Activities	14
II. Preparation of the Survey Report	
A. Show All Required Information on the Cover Page	17
1. Applicant and Plant Surveyed	17
2. Type of Plant	17
3. Manager	17
4. Purpose of Survey	17
5. DP-	17
6. Date	18

DA INSTRUCTION NO. 918-PS

- 7. Fee, Expense, and Lab 18
- 8. USDA Inspector 18
- B. Determine the Pages Required to Assign Status to the Requested Codes ... 18
- C. Use a Pencil to Prepare the Report 19
- D. For Each Item on the Survey Report, Show a Dash, NA, or a Check Mark
in the Satisfactory Column, or the Letter Corresponding to the
Deficiency Category in the Unsatisfactory Column 19
 - 1. Satisfactory Items 19
 - 2. Unsatisfactory Items 19
 - 3. Items That are Not Applicable to the Plant Being Surveyed 20
 - 4. Items not Checked this Survey 20
 - 5. Items That Affect More Than One Code on Different Pages 21
 - 6. Items That do not Affect All the Codes on a Page 21
- E. Classification of Deficiencies Noted During the Survey 21
 - 1. Category - A (Classification - Critical) 22
 - 2. Category - B (Classification - Probable Contamination) 22
 - 3. Category - C (Classification - Potential Contamination) 23
 - 4. Category - D (Classification - Product Quality) 24
 - 5. Category - E (Classification - Environmental) 24
 - 6. Differentiation of classification levels 25
- F. Prepare Recommendations for Deficiencies Noted During the Survey 25
- G. During the Course of the Survey, Note What Corrective Action Has Been
Taken on Previous Survey Recommendations 27
- H. Submit Reports Promptly to the National Field Office 27

III. Assignment of Plant Status

- A. Determination of Plant Status Is the Responsibility of the National Field
Director or a Delegated Assistant 29
- B. A Surveyed Plant or Processing Operation Shall Be Assigned One of the
Following Status Designations 29
 - 1. FULL STATUS 29
 - 2. APPROVED 6-MONTHS 29
 - 3. APPROVED 3-MONTHS 29
 - 4. PROBATIONARY 10-DAYS 30
 - 5. INELIGIBLE 31
 - 6. NO STATUS ASSIGNED 31
- C. Plant with Previous Serious Deficiencies 32
- D. Plant Status Assignment Factors and Considerations 32
 - Equipment Sanitation 33
 - 1. Category A 33
 - 2. Category B 33
 - 3. Category C 33
 - 4. Category D 34
 - 5. Category E 34

Product or Product Contact Surface Contamination	34
1. Category A	34
2. Category B	35
3. Other Categories	35
Processing Unwholesome Products	35
Other Concerns Affecting Plant Status	36
E. Supervisory Review and Distribution of Report	36

IV. Discussion of the Survey with Plant Management

A. Exit Interview	37
B. Plant Status Recommendation	38

V. Guidelines for Performing Plant Inspections

Page A. Inspection of Raw Product Receiving, Storage, and Quality Program

Receiving—Cans

Item A1—Room Construction	A-1
A. Floors	A-1
B. Floor Drains	A-2
C. Walls, Partitions, Posts, & Ceilings	A-4
D. Doors & Windows	A-4
E. Category Assignments	A-5
Item A2—Lighting & Ventilation	A-6
A. Lighting	A-6
B. Ventilation	A-7
C. Condensation	A-8
D. Category Assignments	A-8
Item A3—Pump, Pipelines, & Valves	A-9
A. Weigh & Drop Tanks	A-9
B. Pumps	A-10
C. Pipelines & Fittings	A-11
D. Valves & Special Fittings	A-14
E. Prefilters	A-15
F. Equipment Sanitation	A-15
G. Compliance with the 3-A Sanitary Standards	A-16
Item A4—Can Washer	A-17
Item A5—Condition of Producer Cans	A-18
Item A6—Milk Route Trucks	A-20
Item A7—Housekeeping	A-20

Receiving—Bulk

Item A10—Room Construction	A-23
Item A11—Lighting & Ventilation	A-24
Item A12—Pumps, Pipelines, & Valves	A-24
Item A13—Truck Tanks, Pumps, & Fittings	A-25
Item A14—Cleaning Facilities	A-26
Item A15—Housekeeping	A-26

DA INSTRUCTION NO. 918-PS

Quality Program	
Item A18—Sight - Smell Grading	A-27
Item A19—Raw Products Testing	A-27
A. Abnormal Milk Program (Mastitis Control)	A-27
B. Drug Residue Testing	A-28
C. Sediment Testing Requirements	A-28
D. Bacteria Testing Requirements	A-30
E. Quality Records, Farm Follow-up	A-30
F. ADV Testing	A-32
G. Receiving Tests for Raw Cream	A-32
Item A20—Milk Pickup Frequency	A-33
Item A21—DMC - Commingled Milk	A-33
A. Frequency of Sampling for DMC Tests	A-33
B. Sampling Procedures	A-34
C. Preparing the Slide	A-35
D. Preparation of Form DA-144	A-36
Raw Product Storage	
Item A24—Room Construction	A-37
Item A25—Lighting & Ventilation	A-37
Item A26—Pumps, Pipelines, & Valves	A-37
Item A27—Product Cooler	A-37
A. Plate type	A-37
B. Tubular type	A-38
C. Cabinet surface cooler type	A-39
D. Scraped Surface	A-39
Item A28—Storage Tanks - Silo	A-39
Item A29—Storage Tanks - Horizontal	A-42
Item A30—Housekeeping	A-45
General Items	
Item A31—Source Ingredients	A-46
Item A32—CIP System(s)	A-48
Item A33—Storage of Supplies	A-51
A. Salt, Color, Starter, Rennet, etc.	A-51
B. Containers, Liners, Wrappers, etc.	A-51
C. Housekeeping	A-52
D. Pesticides and Other Chemicals	A-52
Item A34—Sanitary Practices	A-52
A. Employee Sanitary Practices	A-52
B. Equipment Sanitizing Practices	A-52
C. Product Handling Practices	A-53
D. Sanitary Facilities	A-54
Item A35—Product Rinsings	A-55
Item A36—Culinary Steam	A-58
A. Uses That Require Culinary Steam	A-59
B. Incidental Uses That Do Not Require Culinary Steam	A-60
Item A37—Pest Control	A-61

Insect Control in Dairy Manufacturing Plants	A-61
A. Use of Insecticides	A-61
B. Use of Electric Fly Killers	A-63
C. Use of Vacuum-Type Fly Catchers	A-63
D. Fumigation	A-63
E. Special Considerations for Cheese Mites	A-64
F. Special Considerations for Dermestid Insects	A-65
Rodent Control in Dairy Manufacturing Plants	A-66
A. Use of Rodenticide Baits	A-66
B. Use of Mechanical Traps	A-67
C. Use of Windup Type Repeater Mechanical Traps	A-67
Category Assignments	A-67
A. Rodents	A-67
B. Flies	A-68
C. Roaches	A-68
D. Cheese mites	A-68
E. Dermestid insects	A-68
F. Other insects	A-69
Item A38—Water Supplies & Handling	A-69
Sanitary Water Supply	A-69
“Cow Water”	A-70
“Process Water”	A-74
Nonpotable Heat Exchange Media	A-75
A. Inspection of Systems Which Use Nonpotable Heat Exchange Media	A-75
B. Testing Requirements for Nonpotable Heat Exchange Media	A-76
C. Acceptable Results for Coliform Bacteria Tests	A-76
Item A39—Alternate Fats	A-77
Item A40—Plant Exterior & Premises	A-77
A. Plant Surroundings	A-77
B. Solid Waste Storage & Disposal	A-78
Exhibits	

Page B. Inspection of Butter Operations

Cream Processing	
Item B1—Room Construction	B-1
Item B2—Lighting & Ventilation	B-1
Item B3—Pumps, Pipelines, & Valves	B-1
Item B4—Separator	B-1
A. Enclosed type separators	B-1
B. Clean-in-place enclosed type separators	B-1
Item B5—HTST Sealed _____ at _____ sec. _____ ° F	B-2
A. Report is Dated More Than 6 Months Old, All Seals are Present and Intact	B-3
B. A Regulatory Seal on The HTST System is Broken	B-3
C. Circumvention of HTST System Controls or Components	B-4
Item B6—HTST or Vat Pasteurizer	B-4

DA INSTRUCTION NO. 918-PS

High-Temperature Short-Time Pasteurization (HTST)	B-5
A. "Metro-Flo" unit manufactured by Mojonnier Bros. Company	B-8
B. Magnetic Flow Meter Controller (Mag Flow)	B-8
Higher-Heat Shorter-Time Pasteurization (HHST)	B-9
Ultra-pasteurization	B-9
Vat Pasteurizer	B-10
Coil Vat Pasteurizer	B-11
Item B7—Vacuumizer	B-11
Item B8—Cream Cooler	B-12
Item B9—Butter Remelt Equipment	B-12
Item B10—Storage Tanks	B-13
Item B11—Housekeeping	B-13
Item B12—Operations for Cream, Frozen Cream, Plastic Cream, Anhydrous Milkfat, Butteroil, and similar high fat products	B-14
Cream	B-14
Frozen Cream	B-14
Plastic Cream	B-14
Anhydrous Milkfat	B-15
Butteroil	B-15
A. Raw Material Requirements	B-15
B. Storage of Butter for Melting	B-16
C. Melting Operations	B-16
D. Separating Operations	B-16
E. Heating & Vacuum Treatment	B-16
F. Butteroil Cooling & Filling Operations	B-17
G. Butteroil Storage	B-17
Churning Operation	
Item B14—Room Construction	B-18
Item B15—Lighting & Ventilation	B-18
Item B16—Pumps, Pipelines, & Valves	B-18
Item B17—Churn(s)	B-19
Conventional Churns	B-19
Cream-to-oil-to-Butter	B-19
Continuous Churns	B-19
A. "Small" churns that can be easily dismantled	B-20
B. "Large" churns	B-20
C. Salting Equipment	B-21
Item B18—Water (Wash & Composition)	B-21
Item B19—Salt Storage & Handling	B-22
Item B20—Miscellaneous Utensils, Carts, Etc.	B-22
Item B21—Hand Washing Facilities	B-22
Item B22—Quality Tests	B-23
A. Keeping Quality (KQ) Tests	B-23
B. Acid Degree Value (ADV) or Free Fatty Acid (FFA) Tests	B-23
Item B23—Composition Control Facilities	B-24
Item B24—Housekeeping	B-24

Buttermilk Handling	
Item B27—Buttermilk Tanks	B-25
Item B28—Buttermilk Cooler	B-25
Item B29—Pumps, Pipelines, & Valves	B-26
Item B30—Miscellaneous Equipment	B-26
Item B31—Load-out Facilities	B-26
Butter Packaging	
Item B33—Room Construction	B-27
Item B34—Lighting & Ventilation	B-27
Item B35—Pumps, Pipelines, & Valves	B-27
Item B36—Butter Boat/Silo	B-27
Item B37—Miscellaneous Utensils, Carts, Etc.	B-28
Item B38—Bulk Butter Packaging Machine	B-28
Item B39—Boxes & Liners	B-28
A. Boxes	B-28
B. Parchment liners	B-28
C. Polyethylene Liners	B-29
D. Package finish	B-30
E. Markings	B-30
Item B40—Butter Handling Procedures	B-31
A. Area Where Boxes are Removed	B-31
B. Stripping Procedures	B-31
Item B41—Precutters, Chutes, & Conveyors	B-32
Item B42—Micro Fix	B-32
Item B43—Packaging Machine(s)	B-32
A. Print Machines	B-32
B. Continental Machines	B-34
C. Patty or Reddi Machines	B-34
D. Butter Cup Machines	B-35
E. Canning Operations	B-35
Item B44—Butter Whipping Equipment	B-36
Item B45—Whipped Butter Packaging	B-36
Item B46—Scales	B-36
Item B47—Handling of Rework & Scrap	B-37
A. Rework Butter	B-37
B. Disposition of Waste Butter	B-38
Item B48—Housekeeping	B-38
Product Storage	
Item B50—Room Construction - Tempering	B-39
Item B51—Room Construction - Cooler(s)	B-39
Item B52—Room Construction - Freezer(s)	B-40
Item B53—Room Construction - Warehouse	B-40
Item B54—Lighting & Ventilation	B-41
Item B55—Temperature Control	B-41

DA INSTRUCTION NO. 918-PS

Item B56—Housekeeping B-42
General Items

Page C. Inspection of Cheese Making Operations

Milk Processing

Item C1—Room Construction C-1
Item C2—Lighting & Ventilation C-1
Item C3—Pumps, Pipelines, & Valves C-1
Item C4—Clarifier or Separator C-1
Item C5—HTST sealed _____ at _____ sec. _____ ° F C-2
 A. Cheeses Defined as Made From Pasteurized Milk by an
 FDA Standard of Identity C-2
 B. Uncured Soft Cheeses Which are Usually Consumed Fresh
 and for Which There is no FDA Standard of Identity C-2
 C. American Type Cheese C-3
 D. Other cheeses C-4
 E. Condensed Milk for Cheese Making C-4
 F. Reconstituting NDM for Fortifying Milk for Cheese Making C-5
 G. Standardizing Cheese Milk With Whey Cream C-6
Item C6—Heat-Treating or HTST Equipment C-6
Item C7—Heat-Treating at _____ seconds _____ ° F C-6
Item C8—Vacuumizer C-7
Item C9—Storage Tanks C-7
Item C10—Housekeeping C-7

Starter Facilities

Item C12—Room Construction C-8
Item C13—Lighting & Ventilation C-8
Item C14—Media Storage & Reconstitution C-8
Item C15—Media Heat-Treating Equipment C-9
Item C16—Processing Vats C-10
Item C17—Starter Cans or Pipelines C-10
Item C18—Housekeeping C-11

Cheese Room

Item C20—Room Construction C-12
Item C21—Lighting & Ventilation C-12
Item C22—Pumps, Pipelines & Valves C-12
Item C23—Make Vats & Agitators C-12
 A. Conventional Open Cheese Vats and Tables C-12
 B. Enclosed Cheese Vats and Tables C-13
 C. Miscellaneous C-14
Item C24—Drain Tables C-15
Item C25—Curd Knives, Forks, Rakes, Misc. C-15
Item C26—Mech. Draining, Matting Equipment C-16
Item C27—Curd Mill C-16
Item C28—Mixing & Molding Equipment C-17
 A. Mixing Equipment C-17

B. Molding Equipment	C-19
C. Cheese Forms, for Cooling (if used)	C-19
D. Cheese Cooling	C-19
Item C29—Salt Storage & Handling	C-20
A. Manual Salting	C-20
B. Automatic Salting	C-20
Item C30—Fines Return & Fines Saver	C-20
Item C31—Hand Washing Facilities	C-21
Item C32—Housekeeping	C-21
Cheese Brine Facilities	
Item C35—Room Construction	C-23
Item C36—Lighting & Ventilation	C-23
Item C37—Brine Tanks	C-23
Item C38—Control of Brine Quality	C-24
Item C39—Miscellaneous Utensils	C-24
Item C40—Cheese Drying After Brining	C-25
Item C41—Housekeeping	C-25
Cheese Packaging	
Item C43—Room Construction	C-26
Item C44—Lighting & Ventilation	C-26
Item C45—Barrels, Carts & Conveyors	C-26
Item C46—Hoops, Forms & Press Cloths	C-27
Item C47—Hooping Equipment	C-28
A. Manual Hooping	C-28
B. Automatic Curd Conveyors	C-28
C. Automatic Curd Filling or Hooping	C-29
Item C48—Whey Probes	C-29
Item C49—Cheese Press	C-30
A. Conventional Presses	C-30
B. Tower Block Formers	C-30
Item C50—Cheese Vacuumizer	C-34
Item C51—Wrapping Table & Scale	C-34
Item C52—Rindless Sealing Equipment	C-35
Item C53—Housekeeping	C-36
Item C54—Bulk Cheese Markings	C-36
A. Bulk Cheese Markings	C-36
B. Use of Antimycotics	C-37
Product Storage	
Item C56—Room Construction - Coolers	C-39
Item C57—Room Construction - Warehouse	C-39
Item C58—Lighting & Ventilation	C-39
A. Cheese Rooms Where Mold Growth is a Step of the Cheese Making Process	C-39
B. Curing Rooms for Surface Ripening Cheese	C-39
C. Long hold cheese curing rooms	C-39
Item C59—Temperature Control	C-40

Item C60—Housekeeping	C-40
General Items	

Page D. Inspection of Dry Products—Spray Process

Processing and Condensing	
Item D1—Room Construction	D-1
Item D2—Lighting & Ventilation	D-1
Item D3—Pumps, Pipelines, & Valves	D-1
Item D4—Separator	D-2
Item D5—HTST Sealed _____ at _____ sec. _____ ° F	D-2
Summary of pasteurization requirements for various dry products	D-2
A. Dry Whole Milk, Nonfat Dry Milk	D-2
B. Dry Buttermilk	D-3
C. Condensed Milk for Cheese Making	D-3
D. Dry Sweet Whey, Dry Acid Whey, Dry Whey Products, & Lactose	D-3
E. Blended Products	D-4
Item D6—HTST or Vat Pasteurizer	D-4
Item D7—Hotwell	D-5
Item D8—Evaporator(s)	D-6
A. Product Preheaters	D-6
B. Tube Chests (Calandria)	D-6
Item D9—Evaporator Vapor Condenser	D-7
Item D10—Cooler for Condensed Product	D-8
A. Vertical crystallizer tanks	D-8
B. Coil type crystallizer vats	D-8
Item D12—Storage Tanks	D-8
Item D13—Housekeeping	D-9
Drying	
Item D15—Room Construction	D-10
Item D16—Lighting & Ventilation	D-10
Item D17—Pumps, Pipelines, & Valves	D-10
Item D18—Product Preheaters	D-11
Item D19—High Pressure Pump	D-11
Item D20—Dryer Air Supply	D-12
A. Air Supply and Air Intake Location	D-12
B. Air Intake Hood, Screen, etc.	D-12
C. Air Inlet Plenums	D-12
D. Filtering of Process Air.	D-13
E. Filters—Construction and Filtering Efficiency	D-14
F. “Absolute” Filters—General Information	D-14
Item D21—Dryer Air Heating System	D-15
A. Direct Gas Firing	D-15
B. Finned Radiators, Steam Heated	D-15
C. Finned Radiators—Liquid Heating	D-15
D. Direct Oil Firing	D-16
E. Indirect Heating-any Fuel	D-16

F. Regeneration (Air-to-Air or Air-Liquid-Air)	D-16
Item D22—Drying Chamber	D-16
Special Considerations for Lactose Equipment	D-18
Item D23—Second Stage Drying Equipment	D-18
A. Fluid Bed	D-19
B. Rotary Drum Dryers	D-19
Item D24—Product Removal & Conveying Equip.	D-19
A. Pneumatic Conveying Systems	D-20
B. Mechanical Conveyors	D-21
C. Vacuum Conveyors	D-22
Item D25—Dryer Collectors	D-22
A. Cyclone Collectors	D-22
B. Bag Houses	D-22
C. Wet Collectors	D-23
Item D26—Dryer Exhaust System	D-24
Item D27—Powder Cooling System	D-24
Item D28—Storage Bins & Conveyors	D-25
Item D29—Dryer Dry Cleaning Methods	D-26
Item D30—Vacuum Cleaner	D-27
Item D31—Housekeeping	D-27
Packaging	
Item D34—Room Construction	D-28
Item D35—Lighting & Ventilation	D-28
Item D36—Dust Control	D-28
Item D37—Sifter	D-29
Item D38—Bag Filler & Scale	D-31
Item D39—Portable Bin Filling Equipment	D-32
Item D40—Portable Bulk Bins	D-32
Item D41—Product Packaging Temp. _____ ° F	D-34
A. Packaging into 25 kg, 50 lb. or 100 lb. Bags, 240 lb. Fibre Drums, etc.	D-34
B. Product Storage in Totes, Super Sacks, and Other Bulk Bins	D-34
C. Factors Affecting Powder Cooling	D-35
Item D42—Packaging Workmanship	D-36
Item D43—Waste Products Handling	D-36
A. Animal Feed (dry products)	D-36
B. Animal Feed (fluid products)	D-37
C. Pet Food	D-37
Item D44—Housekeeping	D-38
Item D45—Tote to Bag Packaging	D-38
Product Storage	
Item D46—Room Construction - Warehouse	D-39
Item D47—Lighting & Ventilation	D-39
Item D48—Housekeeping	D-39
General Items	

Page D. Inspection of Dry Products—Roller Process

Processing & Condensing	
Items D1 to D13	D-41
Drying	
Items D15 to D31	D-42
Packaging	
Item D34 to D44	D-45
A. Flaker	D-45
B. Mill or Pulveriser	D-45
Product Storage	
Items D46 to D48	D-47
General Items	

Page E. Inspection of Evaporated Milk or Sweetened Condensed Milk Operations

Processing	
Item E1—Room Construction	E-1
Item E2—Lighting & Ventilation	E-1
Item E3—Pumps, Pipelines, & Valves	E-1
Item E4—Preheaters	E-1
Item E5—Hotwell	E-2
Item E6—Carrageenan Equipment	E-2
Item E7—Evaporator(s)	E-2
Item E8—Evaporator Vapor Condenser	E-2
Item E9—Filters	E-3
Item E10—Homogenizer	E-3
Item E11—Product Cooler	E-3
Item E12—Standardizing Ingredient Handling	E-3
Item E13—Standardizing Tanks	E-4
Item E14—Sugar Handling & Equipment	E-4
Item E15—Cut-Back Equipment	E-4
Item E16—Storage Tanks	E-4
Item E17—Housekeeping	E-5
Thermal Processing & Packaging	
Item E19—Room Construction	E-6
Item E20—Lighting & Ventilation	E-6
Item E21—Pumps, Pipelines, & Valves	E-6
Item E22—Surge Tank to Filler(s)	E-6
Item E23—Filler(s)	E-6
Item E24—Filler Parts Storage	E-7
Item E25—Thermal Processing Equipment	E-7
Item E26—Control of Thermal Processing	E-8
Item E27—Product Cooler	E-8
Item E28—Pellet Detector	E-9
Item E29—Can Leak Detection	E-9
Item E30—Can Drying	E-10
Item E31—Can Bin Storage	E-10

Item E32—Housekeeping	E-10
Labeling & Coding	
Item E38—Room Construction	E-11
Item E39—Lighting & Ventilation	E-11
Item E40—Labeling Equipment	E-11
Item E41—Coding - Cans & Boxes	E-11
Item E42—Boxing Equipment	E-11
Item E43—Label - Storage	E-11
Item E44—Housekeeping	E-12
Product Storage	
Item E46—Room Construction - Warehouse	E-13
Item E47—Lighting & Ventilation	E-13
Item E48—Housekeeping	E-13
General Items	

Page G. Inspection of Dry Products Blending and Packaging Operations

Product Dumping	
Item G1—Room Construction	G-1
Item G2—Lighting & Ventilation	G-2
Item G3—Dump Hopper & Screen	G-2
Item G4—Bulk Dumping Equipment	G-3
Item G5—Conveyor(s) to Blender	G-3
Item G6—Dust Control	G-3
Item G7—Housekeeping	G-3
Dry Blending Operation	
Item G9—Room Construction	G-5
Item G10—Lighting & Ventilation	G-5
Item G11—Blender Loading Equipment	G-5
Item G12—Feeding Equipment – Vitamins, etc.	G-6
Item G13—Blending Equipment	G-6
Item G14—Fluidizers or Other Conveyors	G-8
Item G15—Stationary Bulk Bins	G-8
Item G16—Portable Bulk Bins	G-8
Item G17—Dust Control	G-9
Item G18—Housekeeping	G-9
Packaging	
Item G20—Room Construction	G-10
Item G21—Lighting & Ventilation	G-10
Item G22—Product Conveyors	G-10
Item G23—Sifter	G-10
Item G24—Packaging Machine	G-11
Item G25—Conveyors, Scales, Vibrators	G-11
Item G26—Sealing Equipment	G-11
Item G27—Packaging Workmanship	G-12
Item G28—Facilities to Clean Equipment	G-12
Item G29—Vacuum Cleaner	G-13

DA INSTRUCTION NO. 918-PS

Item G30—Other Products Processed	G-13
Item G31—Waste Products Handling	G-13
Item G32—Dust Control	G-13
Item G33—Housekeeping	G-14
Product Storage	
Item G35—Tanker Unloading & Equipment	G-15
A. Room Construction	G-15
B. Unloading Equipment, Lines and Valves	G-15
C. Unloading Procedure	G-15
D. Inspection procedure	G-16
Item G36—Room Construction - Raw Ingredients	G-16
Item G37—Lighting & Ventilation	G-17
Item G38—Housekeeping	G-17
Item G39—Room Construction - Finished Products	G-17
Item G40—Lighting & Ventilation	G-17
Item G41—Housekeeping	G-17
General Items	

Page H. Inspection of Instant Products Operations

Product Dumping	
Item H1—Room Construction	H-1
Item H2—Lighting & Ventilation	H-1
Item H3—Dump Hopper & Screen	H-1
Item H4—Bulk Dumping Equipment	H-1
Item H5—Conveyors	H-1
Item H6 —Sifter	H-1
Item H7—Dust Control	H-2
Item H8—Housekeeping	H-2
Agglomerating & Redrying	
Item H10—Room Construction	H-3
Item H11—Lighting & Ventilation	H-3
Item H12—Conveyors & Metering Equipment	H-3
Item H13—Feeding Equipment - Vitamins, etc.	H-3
Item H14—Moistening Equipment	H-4
Item H15—Moistening Medium	H-5
Item H16—Redryer Air Filters & Heaters	H-5
Item H17—Product Redrying Equipment	H-6
Item H18—Star Valves, Connectors, Fittings	H-7
Item H19—Product Fans & Ducts	H-7
Item H20—Dust Control	H-7
Item H21—Housekeeping	H-7
Product Cooling	
Item H23—Room Construction	H-8
Item H24—Lighting & Ventilation	H-8
Item H25—Cooling Air Filters & Ducts	H-8
Item H26—Product Cooling Equipment	H-8

Item H27—Fines Collectors & Handling	H-9
Item H28—Product Sizing Equipment	H-9
Item H29—Sifter	H-10
Item H30—Handling of Oversized Product	H-10
Item H31—Housekeeping	H-10
Packaging	
Item H33—Room Construction	H-11
Item H34—Lighting & Ventilation	H-11
Item H35—Dust Control	H-11
Item H36—Product Hoppers & Fillers	H-11
Item H37—Conveyors, Scales, Vibrators	H-11
Item H38—Product Packaging Temp. _____ ° F	H-11
Item H39—Container Make-up	H-11
Item H40—Sealing Equipment	H-12
Item H41—Packaging Workmanship	H-12
Item H42—Vacuum Cleaner	H-12
Item H43—Facilities to Clean Equipment	H-12
Item H44—Reclaim Product Handling	H-12
Item H45—Waste Product Handling	H-12
Item H46—Housekeeping	H-12
Product Storage	
Item H48—Room Construction - Warehouse	H-13
Item H49—Lighting & Ventilation	H-13
Item H50—Housekeeping	H-13
General Items	

Page K. Inspection of Process Cheese Operations

Storage & Tempering	
Item K1—Room Construction	K-1
Item K2—Lighting & Ventilation	K-1
Item K3—Storage Temperature	K-1
Item K4—Pallets & Floor Racks	K-2
Item K5—Housekeeping	K-2
Optional Ingredient Handling	
Item K7—Room Construction	K-3
Item K8—Lighting & Ventilation	K-3
Item K9—Pumps, Pipelines, & Valves	K-3
Item K10—Dairy products tanks	K-3
Item K11—Reconstituting Equipment	K-3
Item K12—Storage of Other Ingredients	K-4
Item K13—Operating Procedures	K-4
Cleaning & Grinding	
Item K15—Room Construction	K-5
Item K16—Lighting & Ventilation	K-5
Item K17—Cheese Dumping	K-5
Item K18—Tables & Conveyors	K-6

DA INSTRUCTION NO. 918-PS

Item K19—Adequacy of Cheese Cleaning	K-6
Item K20—Disposition of Scrap	K-6
Item K21—Grinder Feeding Equipment	K-6
Item K22—Grinders or Extruders	K-7
Item K23—Conveyor for Ground Cheese	K-7
Item K24—Housekeeping	K-7
Blending & Cooking	
Item K26—Room Construction	K-9
Item K27—Lighting & Ventilation	K-9
Item K28—Ground Cheese Blenders	K-9
Item K29—Conveyor - Blender to Cooker	K-10
Item K30—Positive Cut-off to Cooker	K-10
Item K31—Cheese Cookers	K-10
Item K32—Vapor Exhaust at Cookers	K-11
Item K33—Control of Cheese Cooking	K-11
Item K34—Cheese Hoppers	K-11
Item K35—Cheese Pumps, Pipes, Strainer	K-11
Item K36—Misc. Equipment & Utensils	K-12
Item K37—Hand Washing Facilities	K-12
Item K38—Housekeeping	K-12
Filling & Packaging	
Item K42—Room Construction	K-13
Item K43—Lighting & Ventilation	K-13
Item K44—Fillers & Hoppers	K-13
Item K45—Wrapper Sealing & Package Coding	K-13
Item K46—Slice Line Operations	K-13
Item K47—Handling of Damaged Packages	K-14
Item K48—Hand Washing Facilities	K-14
Item K49—Housekeeping	K-14
Misc. Items	
Item K51—Handling of Trim & Rework	K-15
Item K52—Barrel Washing & Storage	K-15
Item K53—Condition of Barrels	K-15
Item K54—Carton Make-up Equipment	K-15
Product Storage	
Item K56—Room Construction - Coolers	K-16
Item K57—Lighting & Ventilation	K-16
Item K58—Temperature Control	K-16
Item K59—Housekeeping	K-16
General Items	

Page L. Miscellaneous

Page M. Inspection of Membrane Processing Operations
Processing

Item M1—Room Construction	M-1
Item M2—Lighting & Ventilation	M-1
Item M3—Pumps, Pipelines, & Valves	M-1
Item M4—Separator	M-1
Item M5—HTST Sealed _____ at _____ sec, _____ ° F	M-1
Item M6—HTST Equipment	M-2
Item M7—Product Cooler	M-2
Item M8—Storage Tank(s)	M-2
Item M9—Housekeeping	M-3
Membrane Processing	
Item M11—Room Construction	M-4
Item M12—Lighting & Ventilation	M-4
Item M13—Pumps, Pipelines, & Valves	M-4
Item M14—Surge Tank	M-5
Item M15—Prefilter(s)	M-6
Item M16—High Pressure Pump	M-6
Item M17—Product Processing Temperature	M-7
Item M18—Membrane Modules	M-7
General Instructions for Selecting a Membrane for Inspection	M-8
A. Plants with a Single Membrane System	M-8
B. Plants With Multiple Membrane Systems	M-8
General Guidelines for all Membrane Systems Concerning Cleaning Deficiencies	M-9
Inspection of Membrane Systems	M-11
A. Tubular	M-11
B. Spiral Wound	M-12
C. Plate and Frame	M-14
D. Parallel Leaf	M-14
E. Hollow Fiber	M-14
F. Ceramic	M-15
Item M19—Diafiltration Water	M-15
Item M20—Permeate Piping	M-15
Item M21—Storage Tanks	M-16
Item M22—Housekeeping	M-16
Records	
Item M25—Recording Charts	M-17
Item M26—Processing Log	M-17
Item M27—Flux Test Reports	M-17
Item M28—Membrane Module Log	M-18
Retentate and Permeate Handling	
Item M31—Room Construction	M-19
Item M32—Lighting & Ventilation	M-19
Item M33—Pumps, Pipelines, & Valves	M-19
Item M34—Retentate Storage	M-19
Item M35—Permeate Storage	M-19
Item M36—Permeate Use	M-19
Item M37—Housekeeping	M-20

General Items

Page N. Inspection of Natural Cheese Cutting and Shredding Operations

Storage & Tempering of Bulk Cheese	
Item N1—Room Construction	N-1
Item N2—Lighting & Ventilation	N-1
Item N3—Storage Temperature	N-1
Item N4—Pallets & Floor Racks	N-1
Item N5—Housekeeping	N-1
Cheese Dumping & Stripping	
Item N7—Room Construction	N-2
Item N8—Lighting & Ventilation	N-2
Item N9—Tables & Conveyors	N-2
Item N10—Hand Washing Facilities	N-2
Item N11—Housekeeping	N-2
Cheese Cutting & Shredding	
Item N15—Room Construction	N-3
Item N16—Lighting & Ventilation	N-3
Item N17—Tables & Conveyors	N-3
Item N18—Equipment for Cutting	N-3
Item N19—Equipment for Shredding	N-3
Item N20—Equipment Sanitizing	N-4
Item N21—Conveyor to Packaging	N-4
Item N22—Disposition of Scrap	N-4
Cheese Packaging	
Item N24—Wrapping Machine	N-5
Item N25—Shredded Cheese Packaging	N-5
Item N26—Miscellaneous Equipment & Utensils	N-5
Item N27—Scales and Coders	N-6
Item N28—Handling of Trim	N-6
A. Collection Equipment	N-6
B. Packaging	N-6
C. Storage	N-7
Item N29—Disposition of Trim	N-7
A. Approved Supply Plant	N-7
B. Returned Cheese	N-7
C. Labeling	N-7
Item N30—Trim Press Room	N-8
Item N31—Storage of Film	N-8
Item N32—Hand Washing Facilities	N-8
Item N33—Housekeeping	N-9
Casing Area	
Item N35—Room Construction	N-10
Item N36—Lighting & Ventilation	N-10
Item N37—Housekeeping	N-10
Product Storage	

Item N39—Room Construction - Coolers	N-11
Item N40—Lighting & Ventilation	N-11
Item N41—Temperature Control	N-11
Item N42—Housekeeping	N-11
General Items	

Page W. Inspection of Whey Collection and Processing

Collection, Handling, and Processing of Sweet Whey	
Item W1—Room Construction	W-1
Item W2—Lighting & Ventilation	W-1
Item W3—Pumps, Pipelines, & Valves	W-2
Item W4—Fines Saver(s)	W-2
Item W5—Collection of Sweet Whey	W-2
Item W6—Miscellaneous Equipment	W-2
Item W7—Unseparated Whey Tank(s)	W-2
Item W8—Whey Heating or Cooling	W-3
Item W9—Clarifier or Separator	W-5
Item W10—Separated Whey Tank(s)	W-5
Item W11—HTST Sealed _____ at _____ sec. _____ ° F	W-5
Item W12—Heat-Treating or HTST Equipment	W-5
Item W13—Heat-Treating at _____ sec. _____ ° F	W-6
Item W14—Utilization of Sweet Whey	W-6
A. Neutralizing of whey	W-6
B. Bleaching of whey	W-7
C. Defoamers	W-8
Item W15—Sweet Whey Storage Tank(s)	W-8
Item W16—Animal Feed Handling	W-8
Item W17—Load-out Facilities	W-8
Item W18—Housekeeping	W-8
Collection, Handling, and Processing of Salty Whey	
Item W20—Room Construction	W-9
Item W21—Lighting & Ventilation	W-9
Item W22—Pumps, Pipelines, & Valves	W-9
Item W23—Collection of Salty Whey During Hooping	W-9
A. Manual filling of Hoops	W-10
B. Stainless Steel 40 lb. Block Hoops	W-10
C. Perforated Hard Plastic 40 lb. Block Hoops or Moulds	W-10
D. Miscellaneous Hoops (daisies, longhorns, etc.)	W-10
E. Barrels	W-10
F. 640 Containers	W-11
Item W24—Collection of Salty Whey During Pressing	W-12
A. 40 lb. Blockforming Towers (Wincanton, etc.)	W-12
B. Conventional Open Horizontal or Vertical Cheese Presses	W-12
C. Enclosed Tunnel Presses and Vacuum Chambers	W-13
D. Miscellaneous Draining and Pressing Systems	W-13
Item W25—Miscellaneous Equipment	W-13

DA INSTRUCTION NO. 918-PS

Item W26—Salty Whey Tank(s)	W-14
Item W27—Salty Whey Heating or Cooling	W-14
Item W28—Separator	W-14
Item W29—Salty Whey Utilization	W-15
Item W30—Salty Whey Storage Tank(s)	W-15
Item W31—Animal Feed Handling	W-15
Item W32—Housekeeping	W-15
Handling and Processing of Whey Cream	
Item W34—Room Construction	W-16
Item W35—Lighting & Ventilation	W-16
Item W36—Pumps, Pipelines, & Valves	W-16
Item W37—Separator	W-16
Item W38—HTST Sealed _____ at _____ sec. _____ ° F	W-16
Item W39—Heat-Treating or HTST Equipment	W-16
Item W40—Heat-Treating at _____ sec. _____ ° F	W-16
Item W41—Whey Cream Tank(s)	W-17
Item W42—Load-out Facilities	W-18
Item W43—Housekeeping	W-18
General Items	

Page Z. Determination of Plant Status

Show All Required Information in the Heading

A. DMCC Log Averages	Z-1
B. Plant Status History	Z-1
C. Laboratory Results	Z-1
D. Status Recommendation Worksheet	Z-1
1. List All the Codes on the Status Recommendation Worksheet	Z-1
2. Determine the Number of Deficiencies for Each Code	Z-2
E. Reference Table	Z-2
F. Deciding on a Status Recommendation	Z-2
1. Status for the Raw Receiving Area and Sweet Cream Codes	Z-3
2. Status for Other Codes	Z-3
3. Special Considerations for Plants With Multiple Systems	Z-3

Exhibits

Appendix A

Index

U.S. Department of Agriculture
Agricultural Marketing Service
Dairy Programs
Dairy Grading Branch
Washington, DC 20250

DA INSTRUCTION NO. 918-PS
June 18, 1997
SUPERSEDING
DA INSTRUCTION NO. 918-70
October 1, 1991 and Supplements
and Amendments Thereto

NOTICE TO INSPECTORS

General Instructions for Performing Dairy Plant Surveys

USDA inspection and grading activities are performed under authority contained in the Agricultural Marketing Act of 1946. Inspection and grading services are provided on a voluntary basis and costs are borne by the applicant. Only dairy or dairy related products manufactured, processed, and packaged in a USDA approved plant may be graded or inspected and identified with official grade identification. A plant survey is the basis of determining eligibility for grading and inspection service.

Plant inspections shall be performed in accordance with this Instruction to determine the extent to which facilities, raw material, equipment, and methods of operation are in accordance with 7 CFR 58 subpart B, *General Specifications for Dairy Plants approved for USDA Inspection and Grading Service*, hereafter referred to as the *General Specifications*. The survey information shall be used to establish plant status for eligibility for official inspection or grading service and to assist management, where applicable, in the improvement of product quality or plant operations as provided for in §58.122 through §58.124 of the *General Specifications*.

DA INSTRUCTION NO. 918-PS

I. Performance of Plant Surveys

A. Prerequisites to Performing Inspection.

In addition to this instruction, the inspector shall have the following documents and equipment:

1. *General Specifications.*
2. A clipboard, applicable plant survey forms DA-151, and supply of paper for recommendations.
3. A flashlight, preferably three cell or equivalent, for inspection of equipment.
4. A portable type spotlight. To be furnished by National Field Office, State Agency, or Resident Plant, as applicable, for inspecting silo tanks, batch churns, evaporators, dryers, etc.
5. A salimeter. (To be furnished to inspectors who survey butter operations to check salinity of brine for treating parchment liners for butter boxes).
6. A magnifying flashlight for detecting cheese mites. (Needed by cheese factory inspectors.)
7. A light meter (G. E. type 213 or equivalent).
8. The previous survey report, if any (this may not be practical in all instances).
9. A current schedule of fees to determine applicable charges.
10. A complete set of 3-A Sanitary Standards and Accepted Practices.
11. Slides, micro pipettes, slide drying kit, etc. for preparation of DMCC slides.
12. *Guidelines for the control of Abnormal Milk and Screening Tests for Its Detection.*
13. DA Instruction 918-I, Section P Salmonella Surveillance Program (needed by inspectors of drying operations).
14. DA Instruction 918-S, Section H (for Inspectors doing cursory surveys).

DA INSTRUCTION NO. 918-PS

15. The most recent edition of *Dairy Plants Surveyed and Approved for USDA Grading Service*, hereafter referred to as the *Approved Plant Book*.
16. The most recent edition of *USDA -Dairy Accepted Equipment List*, hereafter referred to as the *Accepted Equipment List*.
17. The most recent edition of *USDA Guidelines for the Sanitary Design and Fabrication of Dairy Processing Equipment*, hereafter referred to as the *USDA Equipment Guidelines*.
18. Any applicable supplementary instruction or memos.

B. Inspector's Apparel and Appearance.

During the survey, clean white clothing should be worn, together with a white hat or cap. When applicable, protective headgear should be worn for safety considerations. Although wearing a white laboratory coat over regular street clothes is satisfactory, inspectors are encouraged to wear white shirts and trousers. The USDA emblem should be displayed on the outer clothing or hat. If hair is long, a hair net is required. Inspectors shall be well groomed, clean, and maintain a high level of personal hygiene (see 918-I, Section D).

C. Survey to Be Unannounced.

Insofar as practical, plant surveys shall be unannounced. To be meaningful, a survey should be an impartial evaluation of day-to-day operating conditions as they are normally conducted. Advance information about an impending inspection may lead to special short-lived precautions not typical of usual performance. Surveys made under such conditions cannot deliver the full potential and value of the service to the applicant. With the exception of initial inspection of plants not previously covered by the USDA plant inspection program and follow-up surveys, the concept of unannounced inspections has been a foundation of the integrity of our plant survey program from its inception. It is a concept, therefore, that is not to be altered without sufficient restrictions to safeguard the purpose and integrity of the program.

Modernization of the manufactured dairy products industry is resulting in an increasing number of extremely large, automated, multi-product processing plants which are designed to be operated on a virtually continuous basis. It can be assumed that this trend will continue as plants strive for the most economical production methods. It is not reasonable to expect that a large plant designed to operate around the clock is capable of discontinuing production for an extended period of time upon the arrival of the inspector at the plant. It would be necessary for the plant to plan for the diversion of milk, reschedule shipping, and plan for employees to accommodate our inspection needs.

Therefore, advance scheduling of surveys with plant managers will be permitted in accordance with the following guidelines:

1. Advance scheduling is not to be universally applied to all dairy plants utilizing USDA inspections. For such consideration, plants must be large, high volume plants operating

on an essentially continuous schedule. Advance scheduling can only be applied with the approval of the National Field Director.

2. Prior to arranging a plant survey, request the plant's operating schedule. If the plant incorporates "low production" or "down" days during the week or routinely schedules various plant departments for rotating "down" schedules which would allow for a progressive survey, then the USDA survey can retain much of its unannounced feature utilizing this knowledge for arriving at the plant without prior scheduling.
3. It is the USDA position that if special scheduling of an inspection is required, it is the plant's responsibility to provide downtime during the normal Monday through Friday work week for the inspection. Weekend or holiday scheduling of USDA surveys is to be discouraged. However, at the discretion of the National Field Director, weekend or holiday work may be approved.
4. When plant inspections have been scheduled with plant management, all areas of the plant and equipment utilized in the production of products covered by the USDA inspection are to be available for review. Arrange for plant employees to be available to disassemble equipment for inspection as needed.
5. An unannounced cursory survey of the plant shall be conducted in conjunction with the scheduled plant inspection in order to evaluate plant conditions during processing periods. The unannounced walk-through should include inspection of any equipment which may be available. It may be conducted either before or after the scheduled inspection, provided it is within two weeks of the scheduled inspection. All conditions observed during the unannounced walk-through are to be included in the official survey report and will be considered in the assignment of the plant status.

If serious unsatisfactory conditions are observed during the cursory survey, the National Field Director may make an appropriate plant status change (for instance INELIGIBLE or PROBATIONARY 10-DAYS) without making a scheduled complete survey.

6. Plant survey guidelines and plant status assignment guidelines are to be adhered to closely. Plants which are unable to satisfy the basic minimum requirements for approval during a scheduled inspection shall be assigned the INELIGIBLE status.
7. Whenever extended run plants are encountered, regardless of whether or not advance scheduling is provided, give special attention to the suitability of the equipment and process for the long runs with infrequent cleanup. The process and equipment must be evaluated in light of potential quality or public health problems which might arise from the extended production periods. The National Field Director should consider the plant complexity and the decision making required for the survey and, when appropriate, arrange for assistance by a supervisor.

Scheduled plant surveys should be kept to the barest minimum. The unannounced aspect of our inspection programs should be retained wherever possible.

D. Arrangements with Management for the Inspection.

Upon arrival at the plant and prior to starting an inspection, contact the manager or employee in charge and state the purpose of the inspection (an exception to this procedure might be when different arrangements have been made with the manager at a prior survey). It is, of course, a manager's option to authorize you to contact subordinates directly or to start nighttime inspections without special notification to management. In addition, ask that someone be assigned to accompany you during the inspection to take note of any deficiencies which might be observed, and when applicable, to dismantle equipment and reassemble it after inspection. Avoid hammering, prying or otherwise forcing equipment components, which could cause breakage or other damage. It is satisfactory to discuss survey findings with the assigned company representative, department foreman, etc., but do not give instructions to company employees.

In the event that a survey is declined when you arrive at the plant, respect management wishes, but advise that charges will apply for the time and expenses involved for the unnecessary trip. Also advise the manager that dairy products made at the plant will be INELIGIBLE for USDA inspection and grading service. Handle the situation similarly if you are asked to discontinue a survey in progress. Only the Cover Page and Page Z need to be submitted to cover a refused survey. Show applicable charges on the Cover Page, together with a brief description about the management request. Use Page Z to show the previous plant status and the current INELIGIBLE status.

E. Extent of Survey Coverage.

Ask management which operations and products should be covered by the inspection and handle accordingly. The report should clearly state the operations included in the survey. No status shall be assigned for uninspected operations.

F. Inspection requirements.

Make the inspection in accordance with requirements outlined in the *General Specifications* and the detailed guidance outlined in Section V of this instruction for each item shown on applicable Pages of the survey report.

G. Requirements for Listing in The *Approved Plant Book*.

Dairy manufacturing operations with an approved status are listed in the *Approved Plant Book* using the following code prefixes to denote products which may be officially graded upon request:

- B — Butter products
- C — Cheese and cheese products
- D — Dry milk products
- F — Frozen dessert products
- M — Milk and fluid dairy products
- S — Specialty products
- W — Whey and whey products

Dairy Grading Branch will also inspect and approve packaging and processing operations that utilize dairy ingredients not made by a USDA approved plant. In these operations the survey will include inspection of the facilities, equipment, sanitation, and operating procedures only. Such operations are not eligible to be listed in Section I and are instead listed in Section II in the *Approved Plant Book*, and are designated by “P” codes (denoting “packaging and processing”). “P” code plants are denied from having the same code in Section I.

Products packaged or processed in “P” code plants are normally not eligible for USDA grading service. Such grading service can be provided for short periods or for special orders, only when USDA is satisfied that the dairy ingredients were made by a USDA approved plant, as for instance, when the processing and packaging are performed under continuous USDA inspection.

In order for a product listing to be shown in the *Approved Plant Book*, all plant manufacturing and storage facilities for the product shall be inspected and approved.

Example:

XYZ Dairy is a cheese operation (approved) and has two separate dryers in the same plant. Their No. 2 dryer operation has an approved status, while the No. 1 operation is rated INELIGIBLE. The survey report should show status of plant as follows:

APPROVED 6-MONTHS — Cheese
INELIGIBLE —Dry Whey

In the event that the No. 1 dryer is later reconditioned to meet the 3-A Accepted Practices or is decommissioned permanently, the *Approved Plant Book* could show status for the dry whey.

H. Survey Frequency.

Survey frequency will depend on the previously assigned plant status. Following are “standard” plant status designations and the resultant survey frequency:

Previous Status	Next Survey Due
FULL	in 5 to 9 months*
APPROVED 6-MONTHS	in 5 to 9 months*
APPROVED 3-MONTHS	in 2 to 5 months
PROBATIONARY 10-DAYS	in approximately 10 days
NO STATUS ASSIGNED	Upon request
INELIGIBLE	Upon request

*General Specifications §58.123 requires that USDA approved plants be surveyed at least twice yearly.

When surveys are requested for plant approval, management should be advised that subsequent surveys will be automatically performed at the frequency necessary to maintain approved status for the products involved. Management may, of course, cancel the arrangement at any time.

I. Cursory Surveys.

A cursory survey shall be made in conjunction with all partial surveys. Partial surveys may include follow-up surveys after the assignment of the NO STATUS ASSIGNED or the INELIGIBLE status or surveys of one or more codes in multi-product plants.

A cursory survey consists of checking HTST seals, building construction, operating procedures, housekeeping and pest control, and a cursory check of any equipment that is not currently in use (see DA Instruction 918-S Section H).

Serious deficiencies noted during a cursory survey cannot be ignored. If these deficiencies cause the INELIGIBLE status to be assigned, telephone the National Field Director and report your observations. Depending on the observations, you may be asked to show the condition and applicable recommendation on the current survey report, or arrange for a complete survey.

Example:

A butter/powder plant is assigned the following status on the previous survey:

APPROVED 6-MONTHS — Butter
 APPROVED 3-MONTHS — NDM and Dry buttermilk

During the survey of the drying operation, the required cursory survey of the butter operation reveals a category A deficiency. The deficiency shall be listed Page B of on the survey report and the INELIGIBLE status shall be assigned to the B codes on Page Z.

J. Procedure to Follow When a Multi-product Plant Has a Different Status for One or More Codes.

In such instances, survey each operation at the frequency indicated by its previous status. Multi-product plants are entitled to the same in-plant utilization of all approved products that they produce as they have when they receive approved products from other plants. In these instances the survey shall concentrate on the equipment and procedures affecting the code(s) presently due for a survey. Other areas of the plant shall receive a cursory survey.

Example:

A butter/powder plant is assigned the following status ratings:

APPROVED 6-MONTHS —Butter
 APPROVED 3-MONTHS —NDM and Dry buttermilk

In approximately 3 months, another plant survey of the dryer operations will be scheduled. The butter making operation will not be scheduled. The survey of the dryer can start at the raw skim storage tanks and the buttermilk balance tank at the churn.

In the course of making the required survey for the dry products, a cursory survey of the butter making operation is also required. However, the codes for the butter making operation should not be listed on Page Z of the report unless there is a change in status.

There may be instances where management will prefer that all operations be surveyed at each survey visit, feeling that the additional time and cost are justified by the finding of small deficiencies before they become serious. Follow management requests in this regard. In any event, only the codes included in the survey or for which status has changed should be listed in the **Status of Plant - This Survey** table on the bottom of Page Z.

K. Short Term Follow-up Surveys (30 Days or Less).

After the NO STATUS or INELIGIBLE status has been assigned, management may make corrections and request a resurvey. Such requests should be honored as promptly as workforce and workload allows. Short term follow-up surveys are usually of two types:

DA INSTRUCTION NO. 918-PS

1. Caused by Category A or B Deficiencies.

When only category A or B deficiencies are responsible for the NO STATUS or the INELIGIBLE status being assigned, the follow-up survey should consist of detailed inspection of those corrective measures, the survey shall also include cursory checks on the entire operation, and summary discussion with management.

Examples:

- a. A cheese plant is rated INELIGIBLE on a routine periodic survey due to grease on the agitator dripping into the cheese. Other operations and procedures were satisfactory. One week later, a follow-up survey is requested. It reveals that the agitator has been repaired. This check, and a cursory survey of the facilities and other processing operations, would serve as a satisfactory inspection of the plant for assigning the APPROVED 3-MONTHS status.
- b. A creamery is rated INELIGIBLE due to two category B deficiencies in room construction and housekeeping in the make room. Three weeks later, a follow-up survey is requested. It reveals that the make room has been repaired and housekeeping is satisfactory. This check, and a cursory survey of the facilities and other processing operations, would serve as a satisfactory inspection of the plant for assigning the APPROVED 3-MONTHS status.

The Cover page and Page Z should be used to note the improvements and assign the APPROVED 3-MONTHS status. The remaining recommendations should not be re-itemized on the latest survey report. Only the codes for which status has changed should be listed in the **Status of Plant - This Survey** table on the bottom of Page Z. Also, because the survey consisted of a detailed inspection of a very limited number of deficiencies there is no need to fill out the **Status Recommendation Worksheet on Page Z**.

2. Caused by Category C and D Deficiencies.

When numerous category C and D deficiencies, are responsible for the INELIGIBLE status being assigned, the follow-up survey shall consist of detailed inspection of all areas of the plant, premises, equipment, and operating procedures utilized in the production of the products covered by the code(s), followed by summary discussion with management.

Example:

A butter/powder plant is assigned the following status ratings:

INELIGIBLE—Butter
APPROVED 3-MONTHS —NDM and Dry buttermilk

A creamery is rated INELIGIBLE due to numerous sanitation deficiencies and poor operating procedures. Three weeks later, a follow-up survey is requested. A

complete survey of all areas of the plant involved with the production of the Butter and a cursory survey of all other operations is required to assign the APPROVED 3-MONTHS status to the Butter codes.

In general, remaining recommendations for the butter operation should be re-itemized on the current survey report so that management will not need to cross-reference the previous report. The recommendations for the dry products should not be re-itemized on the report. Likewise, the dry product codes should not be listed on Page Z.

L. Long Term Follow-up Surveys (More than 30 Days).

All plants that have been INELIGIBLE for more than 30 days before requesting a follow-up survey shall have a complete survey. Follow the guidelines in Section V of these guidelines. The highest status that can be assigned shall be APPROVED 3-MONTHS.

M. Survey Frequency for Drying Operations and Dry Products Packaging Operations Which Are Under the USDA Salmonella Surveillance Program.

Quarterly sampling of product and environmental samples are required, as outlined in DA Instruction No. 918-I. However, plant surveys will be made at the frequency indicated by the previously assigned plant status. In other words, drying operations rated FULL STATUS, APPROVED 6-MONTHS, or APPROVED 3-MONTHS will be surveyed at the appropriate intervals and salmonella samples will be collected during the survey. The intervening quarterly visit, if required, will be for the purpose of taking samples for Salmonella testing. The intent of this policy is to minimize survey costs to the plants.

During the course of a quarterly sampling, it will ordinarily be necessary to work around the dryer filters, product sifter, and the vacuum cleaner, as well as the warehouse. If serious deficiencies are noted while taking the samples, they cannot be ignored: report the deficiencies by telephone to the National Field Director, who will provide guidance on handling the situation.

Follow DA Instruction 918-I, Section P with respect to sampling procedures and preparation of DMS forms.

N. Inspection Emphasis.

Inspection guidelines are on the applicable survey Pages and Section V of this Instruction. It is recognized that it may not be possible or necessary to check each item of equipment at each survey.

Critical points in the operation should receive the most emphasis during the survey — items such as raw product quality, pasteurization, sanitation, equipment condition, processing procedures, etc. However, to establish management's control of equipment sanitation, for instance, it is not necessary to dismantle and inspect each piece of processing equipment. The inspector may be guided to some extent by survey observations and by the plant history of performance.

DA INSTRUCTION NO. 918-PS

Examples:

- a. When a plant has an excellent milk can maintenance program as evidenced by previous survey history, inspection of a smaller number of cans would suffice to indicate continued satisfactory control of this item.
- b. When the dismantling and inspection of some processing equipment in a plant department shows excellent sanitation, only spot checks need be made of remaining equipment in the department.
- c. When pipelines are cleaned by a well engineered, programmed CIP system, satisfactory inspection of pipelines may consist of spot-checking a few lines in each department.

Areas of an operation which have been demonstrated to be under satisfactory control should receive proportionately less attention. It should be the inspector's goal to use time wisely and efficiently by discerning and concentrating on the weakest areas of the plant operation.

O. Grandfather Exemption for Plant Equipment.

A grandfather exemption, as it pertains to equipment and plant inspection activities, is the procedure by which an inspection agency, such as the Dairy Grading Branch, can accomplish the orderly, phased removal or replacement of equipment that has become obsolete due to advances in equipment design or processing techniques. This procedure allows the processor to continue using a piece of equipment or a process which, when it was installed, complied with all then existing requirements, but, which through advances in design or technology, or modification of regulations no longer complies with current standards or requirements.

A grandfather exemption does not sanction improper sanitation or poor maintenance of equipment. All grandfather exempted equipment will eventually wear out or may reach a stage of disrepair such that it can no longer be accepted. At that time, the equipment is to be treated as any other piece of equipment in similar condition and appropriate recommendations for repair or replacement are to be made.

A change in ownership of a processing facility which does not interrupt the cycle of unannounced plant surveys would not alter the grandfather exemption status of items at that facility.

A grandfather exemption, as it is used by the Dairy Grading Branch, is specific to the equipment or plant location and may assume two slightly different applications depending upon the circumstances encountered.

Application I

The policy is specific to a class or model of equipment which may be located at a number of different locations. The grandfather exemption status may be assigned to a particular model because of the lack of available alternatives or long-standing use. An example of this approach would be the use of separators which are commonly used throughout the industry even though all new machines are required to meet the *3-A Sanitary Standards for Centrifugal Separators and Clarifiers, Number 21-*, which became effective November 24, 2002.

Under this application, the grandfather exempted items may move freely between locations until such time as the particular unit is no longer acceptable due to disrepair. Processing facilities utilizing equipment exempted by this application would not be limited from any plant status assignment solely based on the grandfather exemption. Plant status assignment shall be assigned consistent with plant conditions and sanitation. Should an acceptable alternative be developed and become readily available, the Dairy Grading Branch will determine when all of the remaining items would revert to an Application II status.

Application II

The policy is specific to an identified machine located at an identified processing facility. For example, a rotary airlock which does not meet current design criteria could be granted a grandfather exemption as a part of a drying system at an identified drying plant.

Since the grandfather exemption is intended to accomplish the phased withdrawal or replacement of the equipment, movement of the items exempted is limited. However, the time frame during which a grandfather exemption remains in effect can be quite long. There is no mandatory maximum time period restriction.

Under this application, the grandfather exempted equipment is a specific model located at a specific processing facility. The item is not free to move between locations. Status assignments may be made consistent with plant conditions and sanitation. If the item is moved from the identified processing facility to another approved facility, the item shall be upgraded to meet all current standards, requirements and regulations.

In addition, under this application, if the processing facility withdraws from the Dairy Grading Branch plant survey program for an extended period of time equal to or exceeding one year, all grandfather exempted equipment shall be upgraded to current standards, requirements, or regulations in order for the facility to be reinstated as an approved facility. Withdrawal from the plant survey program is not interpreted to include temporary losses of approved status during which the processing facility is actively working to regain approval.

When an approved processing facility that includes some equipment accepted by grandfather exemptions constructs new facilities, the following criteria will apply:

DA INSTRUCTION NO. 918-PS

1. The New Facility Is an Expansion or Remodeling of an Existing Building, or a New Building at the Same Site.

All grandfather exemptions granted under Application I and II are permitted to be used in the new facility.

2. The New Facility Is at a New Site Separate from the Original Facility.

Equipment granted a grandfather exemption under Application I is permitted to be used in the new facility. Equipment granted a grandfather exemption under Application II is not permitted to be moved to the new facility without upgrading to current standards, requirements and regulations.

P. Safety Precautions in Plant Inspection Activities.

Dairy Grading Branch inspectors have developed a very good safety record and we want to keep it that way. Here are some pointers to remember in your work:

1. Do not enter a confined space without taking the proper precautions. Deaths have been attributed to carbon monoxide gas apparently formed in dairy equipment by the interaction of alkaline cleaning compounds with milk residues. Look for thorough rinsing after cleaning and airing out afterward. Some equipment can be adequately inspected through doors, sight glasses, inspection ports, and partial entry. Refer to the following chart to decide if full entry is required:

Entry Required	Entry not Required
Evaporator	Bulk trucks
Double O cheese vats	Storage tanks
Box dryer	Cone dryer
Wet collectors	Horizontal cheese vats
Enclosed finishing vats	Cheese conveyors
	Mechanical draining, matting equipment

The plant should have a confined space entry safety program that meets Occupational Safety and Health Administration (OSHA) requirements (which may include entry permits, employee training, atmospheric monitoring equipment, and lockout/tagout procedures). Inform the management before you enter any equipment and follow the procedures required by the plants safety program. If the plant lacks a program that meets OSHA requirements (contained in 29 CFR parts 1900-1999) do not enter any equipment. Note

on the survey report what pieces of equipment were not entered, also note any deficiencies in the plants confined space entry program and recommend correction.

2. Lockout electrical switches before dismantling or entering equipment with moving parts such as pumps, Double-O vats, grinders, ribbon blenders, etc. If proper lockout is not available do not inspect the equipment in a manor that will put you near the moving parts.
3. Be careful around electrical equipment. Don't poke around inside live switch boxes. (All switch boxes should be considered live). If you need to obtain insect specimens from electrical equipment, obtain plant assistance.
4. When working around moving gears, belts, shafts, etc., beware of loose clothing getting caught in the works. The tails of long lab coats are particularly dangerous in this respect.
5. Use only good condition ladders for climbing. Install them at a safe angle and make sure the ends are firmly grounded.
6. Be careful on slippery floors and stairways. Footwear with "non-skid" soles will help.
7. Avoid burns from hot pipes or from steam lines.
8. Avoid skin contact with caustics, acids, and other strong chemicals.
9. Ear protection should be worn when appropriate.
10. Eye protection should always be worn around equipment.
11. When working around overhead pipes a plastic bump cap should be worn.
12. Drive carefully! This is probably the most hazardous part of your job. Federal regulations require you to use your seat belt. Don't drive over the posted speed limit. Drive prudently as if your life depends on it. It does.

DA INSTRUCTION NO. 918-PS

II. Preparation of the Survey Report

A. Show All Required Information on the Cover Page.

1. Applicant and Plant Surveyed.

Record the plant name and address in the applicant box unless management requests the bill be sent to another location. In that case, list the address where the bill should be sent in the applicant box and the plant address in the plant surveyed box. Use the full names and addresses (including Zip Code). Include the state assigned plant number, preferably after the plant name if there is sufficient room or in the plant surveyed box if the plant is the applicant.

2. Type of Plant.

Show only a general description, listing all the products made is not necessary.

Examples:

- a. Show "Cheese" although four cheese varieties are made, and whey cream.
- b. Show "Butter/Powder" for a plant that makes and packages butter, and makes NDM plus three special dry blend products.

3. Manager.

Show Mr. or Ms. and the managers full name.

4. Purpose of Survey.

Use "Periodic Survey" when this term is applicable. Use other statements when appropriate, such as "Requested survey," "Follow-up after PROBATIONARY 10-DAY status," etc.

5. DP- .

Assign one of your certificate numbers to each of the survey reports you do. Place this number on all lab sheets that are associated with that survey (alternative fat, salmonella samples, or DMCC). This is required to track laboratory tests in the system.

DA INSTRUCTION NO. 918-PS

6. Date.

List the date of the survey. If the survey requires more than one day show all the dates on the report (include part days and travel days) as 8/4,5/97 or 8/1—3/97.

7. Fee, Expense, and Lab.

Charge your hours according to the current rate. Also, add your expenses to the report. Under Lab, list the current fee for the DMCC test, if applicable. If you Send Salmonella samples to the lab leave the area for lab fees blank. The National Field Office will enter the amount (which depends on the number of tests that require verification).

8. USDA Inspector.

Fill in your name and the name of any other USDA inspector or observer. Each inspector has been assigned an identification number. Please include this number immediately after your name.

B. Determine the Pages Required to Assign Status to the Requested Codes.

All the deficiencies that affect a code will be on a single Page. Therefore, only the deficiencies on Page C affect the cheese codes. Likewise, only the deficiencies on Page D affect the dry whey codes (see the guidelines for D.5 and D.6. in this section for more information).

Approved sources can be purchased or produced within the plant, but if produced within the plant the appropriate Pages are required to determine suitability of the source ingredients. Therefore, to assign the dry whey code Pages A, C, D, and W are required. Assigning status to the intermediate products is not required (i.e., a plant is not required to have the milk, cheese, or fluid whey codes to receive the dry whey code).

When surveying plants with multiple systems (for example two dryers or several process cheese lines) the first step is to decide whether to put the deficiencies from all the systems on a single Page or to use a separate Page for each system. To determine when each system will be on a separate Page, the plants will be assigned to one of the following groups.

1. Plants with multiple dryers and evaporators, or a butter plant that also has a light butter line. In this case a separate survey page for each system shall be used.
2. Plants where the systems can be moved or can direct product throughout the systems downstream. Examples: process cheese lines where the grinders feed several cookers or packaging lines; shredded cheese lines where the equipment is on wheels and moved to a cleaning room after production; two churns feeding the same butter boat or silo. In this case a single survey page shall be used.
3. Systems that are segregated by the plant, if such systems are operated and cleaned separately. Example: process cheese operations divided into loaf and slice departments,

each with their own grinders and cookers. In this case a separate survey page for each system shall be used.

In the space provided at the top of each Page, list the product codes affected by the deficiencies on that Page.

Example:

Codes (This Page) <i>D1, D6, M14</i>			Page D ● Dry Products		
ITEM NO.	CODE: S - SATISFACTORY ITEMS U - UNSATISFACTORY ITEMS	CHECK ONE		DRYING	
		S	U		
D1	Room Construction				D29 Dryer Dry Cleaning Methods
D2	Lighting & Ventilation				D30 Vacuum Cleaner
					D31 Housekeeping
					D32
					D33
					D34 Room Construction

C. Use a Pencil to Prepare the Report.

Write legibly to allow accurate supervisory review. Do not crowd the information excessively in the "Recommendations" section: use lined insert pages when necessary. Separate Pages can be used if the plant has more than one self contained processing line such as multiple dryers or process cheese lines.

D. For Each Item on the Survey Report, Show a Dash, NA, or a Check Mark in the Satisfactory Column, or the Letter Corresponding to the Deficiency Category in the Unsatisfactory Column.

1. Satisfactory Items.

Show a check (✓) or slash (/) mark in the S (satisfactory) column for each applicable item that you were able to check and that you found satisfactory. It is not necessary to show informational comments to substantiate that the item was checked and found satisfactory. Limit such informational type comments to helpful description of the process flow, mention of unique procedures, occasional compliments, etc.

2. Unsatisfactory Items.

Rank the seriousness of each deficiency noted during the survey by inserting the deficiency category letter (A, B, C, D, or E) under the U (unsatisfactory) column for each item number as appropriate (see Item E. Classification of Deficiencies Noted During the Survey below).

3. Items That are Not Applicable to the Plant Being Surveyed.

Show NA in the satisfactory column when an item is not applicable to the plant operation. Additional explanatory comment may or may not be required.

DA INSTRUCTION NO. 918-PS

Sometimes, entire sections of the survey report page may not be applicable. In such instances, write "Not Applicable" or "NA" in the box with the heading for the section or show a brief explanatory comment in the "Remarks section."

4. Items not Checked this Survey.

Inspecting all items on each survey is usually impossible. However, any item from the last survey report classified as a category A or B deficiency shall be included in the current survey. If an item has not been inspected, do not show a check mark. Show a dash in the S column. If a category C, D, or E deficiency was noted for the item on the previous report repeat the recommendation with a notation such as: "In use this survey," "Not looked at this survey," or words to that effect. Also repeat the deficiency classification letter under the U column of the item on the current report. If a large area of the plant was not included in the current survey but was included in the previous survey (e.g., a plant with two or more dryers) you should make a photocopy of that section and include it with the current report.

Examples:

	D14			
	D15	Room Construction		<i>D</i>
	D16	Lighting & Ventilation	✓	
	D17	Pumps, Pipelines, & Valves	--	<i>D</i>
	D18	Product Preheaters	NA	
	D19	High Pressure Pump		<i>C</i>
	D20	Dryer Air Supply	✓	
DRYING	D21	Dryer Air Heating System	/	

RECOMMENDATIONS: (List by Item No.)

- D15. — Continue to scrape the peeling paint from the walls (one small area near the south entrance to the room)(D).
- D17. — In use this survey: Dismantle the pump next to the balance tank for daily hand cleaning (slight product present on the pump back plate)(D).
- D18. — Product is pumped to the dryer directly from the evaporator.
- D19. — Improve cleaning of the High Pressure pump (definite product noted around valve seats)(C).

5. Items That Affect More Than One Code on Different Pages.

Some deficiencies may affect more than one code. This is especially true of the general items (Items A33-A40). In this case, record the category of the deficiency and write out the recommendation. On other Pages where codes are affected, record the deficiency category in the U column, then reference the recommendation on the original Page. If there are codes on the Page not affected by the deficiency, these shall be clearly identified.

Example:

A butter plant also has codes for condensed and dry buttermilk. Therefore, an unapproved source of cream affects all three codes. Show the following recommendations in addition to listing a category A deficiency in the U column for Items B58 and D50.

(on Page B)

B58. — Discontinue receiving cream from unapproved sources (A).

(on Page D)

D50. — See Item B58 (A).

or to the right of Item D50—Source Ingredients on Page D write “See Item B58” and record the category in the U column.

6. Items That do not Affect All the Codes on a Page.

If in the above example, the plant had other condensed or dry product codes that are not affected by the unapproved source of cream, list them in the recommendations section. Using the same example as above, except that the plant also has the codes for condensed and dry milk. The recommendation on Page D should be as follows:

Example:

D50. — See Item B58 (A). Unapproved source does not affect the M8 or D1 codes.

E. Classification of Deficiencies Noted During the Survey.

The classification system relies on the Inspector's technical and professional expertise to assign each deficiency to a category that accurately describes and documents its seriousness. This will point out the deficiencies that lead to the status recommendation and help the National Field Office, the Washington Office, the plant, and other interested parties to more easily understand the conditions that existed in the plant.

Each deficiency noted on the survey report shall be classified according to one of the five categories. The most serious deficiencies will be classified as category A, less serious deficiencies as category B, and on through C, D, and E. The seriousness of deficiencies will

DA INSTRUCTION NO. 918-PS

vary according to their location within the plant or process and will be unique to each observation. Each deficiency is to be classified as independently as possible from the other deficiencies noted. The inspector shall use good judgment when applying the guidelines and examples presented below.

First consider what, if any, affects on public health the deficiency will have. Then determine the likelihood that product has or will become contaminated or unwholesome during the time that will be required to correct the deficiency. Next, decide the extent of the deficiency. Deficiencies that by themselves are not serious may be part of a larger problem that would move them into the next higher category. For example, a very slight film on the interior of the unseparated whey tank may indicate a plugged spray ball, or it may represent a problem with the CIP system. In the first case the deficiency is relatively minor, easily corrected, and has negligible effect on plant status. In the latter it is likely that other equipment may be affected and the deficiency requires immediate and effective corrective action to maintain product quality and plant status. Lastly, assign the deficiency to a category using the guidelines below.

1. Category - A (Classification - Critical).

This category includes pest control and product contamination. Contamination is of two types: Public health concerns (mold, toxins, viral, fecal, and bacteria), and unwholesomeness due to extraneous material (paint, plaster, metal, cleaning compounds, etc.). Category B deficiencies from the preceding report that have not been corrected or which have recurred shall be classified as Category A for the present report.

Examples:

- a. Infestation of insects, rodents, and other vermin.
- b. Adulteration of products with chemicals or other foreign material.
- c. Unsanitary conditions or practices observed or confirmed that is of such serious degree that wholesomeness or safety of the final product is immediately threatened.
- d. Critical deficiencies in the facilities or housekeeping.

2. Category - B (Classification - Probable Contamination).

Contamination has not been observed but will happen without immediate corrective measures. Also, contamination, when it occurs, will be equivalent to the conditions considered as critical (category A). Category C deficiencies from the preceding report that have not been corrected or which have recurred can be classified as Category B for the present report. Inspectors will need to consider if the response of the plant was appropriate and adequate, if the chance of contamination has increased, and what the effect would be if the same response occurred after the present survey.

Examples:

- a. Unsanitary conditions or practices observed or confirmed that are of such serious degree that the wholesomeness or safety of the final product is threatened unless changes are made immediately.
- b. Contamination of the product will happen with high probability.
- c. Prompt corrective actions will be required to prevent the contamination from occurring.
- d. Definite deficiencies in the facilities or housekeeping.

Category A and B deficiencies concerning sanitation will usually be reserved for post pasteurization contamination. Exceptions should be made if the deficiency will likely result in a public health hazard or contamination with extraneous material (such as gross negligence of cleanup).

3. Category - C (Classification - Potential Contamination).

This category is applicable to sanitation, equipment, and facility deficiencies that will contaminate finished products if left uncorrected. These deficiencies may require some time to correct but contamination of product will not likely occur during this period. Category D deficiencies from the preceding report that have not been corrected or which have recurred can be classified as Category C for the present report. Inspectors will need to consider if the response of the plant was appropriate and adequate, if the chance of contamination has increased, and what the effect would be if the same response occurred after the present survey.

Examples:

- a. Unsanitary conditions or practices noted at a level such that product wholesomeness is not immediately threatened but will eventually occur.
- b. Contamination of the finished product will eventually occur if the deficiencies remain uncorrected.
- c. Corrective actions should be made in a timely manner but are not required immediately to prevent the contamination from occurring.
- d. Moderate deficiencies in the facilities or housekeeping.

4. Category - D (Classification - Product Quality).

These deficiencies are of minor significance and each by itself has very little effect on plant status, however, an excessive number could cause status to be reduced. Most Category D

DA INSTRUCTION NO. 918-PS

deficiencies will become Category C if neglected. This category should also be used for environmental deficiencies (category E) that have advanced to the point that the product can become threatened.

Examples:

- a. Unsatisfactory conditions or practices noted at a level such that product wholesomeness is not threatened.
- b. Contamination, if it occurs, is not a public health concern but will affect quality factors such as shelf life and grade.
- c. Corrective measures can be verified during the next survey without threatening product safety or wholesomeness.
- d. Includes handling, storage, and testing of raw and finished products.
- e. Slight deficiencies in the facilities or housekeeping.

5. Category - E (Classification - Environmental).

Category E deficiencies are offered for the benefit of the plant so they can correct these small areas before they become problems. They are of such minor importance that they will not affect plant status.

Examples:

- a. Unsatisfactory conditions or practices noted at a level that do not affect product quality, wholesomeness, or safety unless corrective measures are delayed for a long period and the deterioration increases.
- b. Conditions inside and outside the plant that do not directly affect product quality or endanger product wholesomeness.
- c. Physical condition of equipment items that does not directly affect product quality or endanger product wholesomeness.
- d. Very slight deficiencies in the facilities or housekeeping.

6. Differentiation of classification levels.

Some deficiencies are similar in wording, but are distinguishable in classification. The inspector will need to use good judgment that is based on these guidelines and instructions to assign each deficiency to the appropriate category.

Examples:

Bristles, gasket parts, etc., but no product residue, in a raw milk cooling press—D
vs.

Bristles, gasket parts, etc., but no product residue, in a cheese milk cooling press—C

Slight film present on the exterior of equipment—E

vs.

Slight film present on the interior of equipment after CIP—D

Product and CIP lines separated by an improper block and bleed system
(block-block-bleed, one valve seat not present, etc.)—C

vs.

A CIP line connected directly into a product line or storage tank during operation with no
intervening valves—B

vs.

CIP solution entering product during production—A

F. Prepare Recommendations for Deficiencies Noted During the Survey.

Very minor items can be handled verbally. Preferably, the recommendations should be written during or immediately after the survey and one copy left with management after your discussion. Written documentation of deficiencies is required when the survey results in the INELIGIBLE status assignment so management is clearly informed about needed corrective measures (see Section IV).

Use the Item number to identify each recommendation. Write recommendations in a concise, positive manner, using complete sentence structure. Use wording that will indicate the nature of the deficiency as well as the needed corrective measure. Be specific when making recommendations. Make sure the exact equipment or area is identified in each recommendation. In some instances, it may be necessary to show the nature of the deficiency separately. If so, insert a brief explanation in parentheses directly after the applicable recommendation. Also, record the category of each deficiency in parentheses directly after the recommendation. When the recommendations will not easily fit on a single page, show the balance on a lined insert page (tablet paper). Number each page or show on the bottom "Continued on next page." Recommendations carried forward should be fully identified, such as B41, C54, etc.

Example:

A1. — Repair the two rusted out floor drains near the can washer (D).

DA INSTRUCTION NO. 918-PS

A28. Silo 1
Improve CIP of the lower half of the silo (slight blue film noted) (D).

Silo 2
Polish the slightly pitted sample spigot (D).

Silo 3 and 5
In use.

Silo 4
Satisfactory.

B10. — Remove agitators from cream tanks 2 and 3 for manual cleaning each time the tanks are washed (slight product present) (C).

C46. — Discontinue the practice of reusing single service type cheese press cloths (C).

If more than one deficiency is noted for an item, list each recommendation separately.

Example:

A12. — Polish the pitted impeller, back plate, and housing of the west receiving pump (D).

— Remove the receiving hose end stubs for daily hand cleaning (slight product residue present) (D).

Some items or pieces of equipment may have multiple deficiencies, each belonging in a different category. If this is the case, list each of these deficiencies in the “Recommendations” section. Then determine the overall category for the item. Special emphasis should be placed on the deficiency that falls into the most serious category when making this decision.

Example: (Category D)

C24. — Improve cleaning of the tables (slight film on exterior of vats 1 and 5) (E).

— Continue to polish the rough welds in the drain grates of all the vats (D).

Example: (Category C)

- C24. — Improve cleaning of the tables (slight film on interior of vats 1 and 5) (D).
- Continue to polish the rough welds in the drain grates of all the vats (D).
- Improve cleaning of the outlet valves of tables 1, 2, and 5 (slight product noted on valve seats) (C).

G. During the Course of the Survey, Note What Corrective Action Has Been Taken on Previous Survey Recommendations.

List such items under a new heading, "Improvements" to be shown on the last page of the survey report. Number the improvements serially (cross referencing to the previous survey recommendation number is not necessary). This list should include major improvements accomplished by the plant even though they were not recommended, such as expansion of the bulk milk receiving facilities, construction of a new warehouse, installation of new separators, etc.

Do not show future company plans or projections as improvements. It is well to acknowledge management intent, but this should be done under an appropriate subheading or preferably in a parenthetical sentence located after the applicable recommendation.

H. Submit Reports Promptly to the National Field Office.

This will facilitate prompt distribution to management from the office.

Whenever possible, a longhand copy of the report should be left with the plant manager following the summary discussion. When a copy of the report cannot be left due to time constraints, a list of the most serious deficiencies and your recommended status assignment should be left. Advise management that your status recommendation is subject to change through supervisory review at the National Field Office. Therefore, the official report should be carefully reviewed when it arrives at the plant.

DA INSTRUCTION NO. 918-PS

III. Assignment of Plant Status

A. Determination of Plant Status Is the Responsibility of the National Field Director or a Delegated Assistant.

A USDA approved plant is one that satisfactorily meets the requirements of the *General Specifications*. The plant status is determined by careful review of the inspector's report and evaluation of the extent and category classification of reported deficiencies. The inspector's status recommendation will receive primary consideration. This recommendation will be altered only to correct misinterpretation of inspection requirements or policy and to maintain program uniformity. Of lesser importance, but still factors in status assignment, is the plant survey history of operating conditions, past response on recommendations, and management expressions of intent to correct current deficiencies.

B. A Surveyed Plant or Processing Operation Shall Be Assigned One of the Following Status Designations.

1. FULL STATUS.

The plant satisfactorily meets requirements of the *General Specifications*. If deficiencies exist, they are of relatively minor significance. None of these deficiencies are classified as category A, B or C.

2. APPROVED 6-MONTHS.

The plant has deficiencies which disqualify it for FULL STATUS. The nature of these deficiencies is such that they do not directly affect the wholesomeness or quality of the finished product. None of these deficiencies are classified as category A or B.

3. APPROVED 3-MONTHS.

The plant has deficiencies which disqualify it for FULL STATUS or APPROVED 6-MONTHS status and that could have an adverse effect on product quality, however, the plant has no category A deficiencies.

The APPROVED 3-MONTHS status should be assigned on the first survey after PROBATIONARY 10-DAYS or INELIGIBLE status assignments (see Section III, Item C). It shall also be the highest status assigned after an initial survey, provided the plant meets the requirements of the *General Specifications*.

DA INSTRUCTION NO. 918-PS

USDA is particularly concerned with instances where conditions observed during a plant inspection following the assignment of the APPROVED 3-MONTHS status would warrant consideration of another APPROVED 3-MONTHS status. Consecutive APPROVED 3-MONTHS status assignments can be made only when all the following criteria are met:

- a. Significant progress has been made in correcting deficiencies noted on the previous survey.
- b. Plant sanitation, when considered separately, would be equal to that found in an APPROVED 6-MONTHS plant.
- c. Equipment construction deficiencies are such that product quality is not materially affected.
- d. Facility deficiencies are such that product quality is not materially affected.
- e. Plant management supplies a written commitment which is confirmed in the survey report, that the relevant facility or equipment deficiencies will be corrected within a period of time acceptable to the USDA.
- f. The arrangement is approved by the National Field Director.

In the event that all of the above conditions are not satisfied, the PROBATIONARY 10-DAYS or the INELIGIBLE status shall be assigned.

4. PROBATIONARY 10-DAYS.

When very serious deficiencies are observed that, if not corrected immediately, would result in the INELIGIBLE status being assigned, but management assures prompt attention to the primary deficiencies, consideration may be given to an alternative status of PROBATIONARY 10-DAYS under the following circumstances:

- a. The main deficiencies are of such character and extent that correction can be made essentially immediately.
- b. Plant management intends to make corrections immediately.
- c. The arrangement is approved by the National Field Director.

To obtain approval for the PROBATIONARY 10-DAYS status, inform the National Field Director by telephone about the main deficiencies noted during the survey. After familiarization with the situation, the National Field Director may ask to speak with the plant management and learn of their corrective plans. The National Field Director may or may not approve the request. If approved, inform the plant manager that a resurvey will be performed in approximately 10 days. In the event you are unable to contact the National Field Office when a question comes up

about the PROBATIONARY 10-DAYS status, assign the INELIGIBLE status and tell the plant manager you will contact the National Field Director the next business day.

5. INELIGIBLE.

The plant has serious deficiencies (any category A deficiency) which may affect product wholesomeness, safety, or quality. This status assignment is also applicable when raw material source plants are not approved or when no significant improvement has been made in plant operations since the previous survey at which time an APPROVED 3-MONTHS or PROBATIONARY 10-DAYS had been assigned.

When the plant conditions are such that you recommend the INELIGIBLE status, advise the plant manager and leave written notification of the INELIGIBLE status, codes affected, date of action, and recommendations for needed corrective measures. The National Field Office shall also be notified promptly by telephone.

Assign the INELIGIBLE status if a plant decides to drop a product code and the equipment will not be included in future surveys.

Products made by plants with the INELIGIBLE status shall not be officially graded or inspected. Assistance with plant upgrading or resurvey for reinstatement is available upon request. When a plant is either rated INELIGIBLE or reinstated for grading service eligibility, the National Field Director will also notify the field personnel about the status action if it involves products likely to be presented for grading (product in a warehouse but not yet offered for grading when a plant is assigned the INELIGIBLE status is not eligible for official grading or inspection).

6. NO STATUS ASSIGNED.

There are instances of inspection activity where assignment of a plant status is not applicable. In the following instances the NO STATUS ASSIGNED designation should be used:

- a. After an initial survey in which the plant did not meet the requirements of the *General Specifications*.
- b. Management requests a survey of a portion of the plant that was not included in previous surveys and that does not meet the requirements of the *General Specifications*.
- c. A plant decides to change or eliminate one or more product codes and all the equipment remains included in the survey. For example; a plant producing NDM and Dry Whey on the same dryer decides to stop drying the whey and ship it as condensed whey. They retain the NDM code, add the Condensed Whey code and receive NO STATUS ASSIGNED for Dry Whey. Note: If the plant had dropped all dry codes the INELIGIBLE status would apply because the dryer would no longer be included in the survey.

DA INSTRUCTION NO. 918-PS

- d. Management requests a review of operations under construction in order to learn what changes are needed to meet the requirements.

C. Plant with Previous Serious Deficiencies.

In general, when a plant has deficiencies serious enough to warrant the INELIGIBLE or PROBATIONARY 10-DAYS rating, the status assigned on the subsequent survey should not be higher than the APPROVED 3-MONTHS designation. Such a plant has had a serious problem and closer surveillance is necessary for assurance that corrections were adequate and operations are satisfactory on a continuing basis.

There may be exceptions to this general policy when the reinstating survey clearly reveals not only correction of the deficiency, but also correction of the underlying causes. In such instances, status higher than APPROVED 3-MONTHS may be assigned as applicable.

Examples:

- a. A cheese factory was rated INELIGIBLE because of mold growth on walls and ceiling of the make room. Previous survey reports show a history of mold trouble in this room during winter months. The reinspection reveals mold free plant conditions, repainting of the make room, insulation of the walls and ceiling, and installation of additional space heaters for improved air circulation in the room. The insulation and ventilation improvements should preclude further mold problems so status on the reinstatement survey may be higher than APPROVED 3-MONTHS if warranted by other plant conditions.
- b. High DMCC results have caused INELIGIBLE plant status. When a subsequent survey or special sampling for DMC tests shows satisfactory results, the appropriate plant status may be directly assigned.

D. Plant Status Assignment Factors and Considerations.

The plant status assignment may be based on one major item, many minor items, or a combination of both. Reported deficiencies are evaluated in terms of their relationship to public health, product wholesomeness, product quality, and sanitary conditions of production. In accordance with the provisions listed in Section 58.124 of the *General Specifications*, notwithstanding other requirements for plant approval, the following policies apply for the specific items listed below to promote uniformity in assigning plant status:

Equipment Sanitation.

Unsatisfactory sanitation of equipment, depending on the seriousness and extent of the deficiency, may be categorized as A, B, C, D, or E according to Section III, Item E and the following guidelines.

1. Category A.

Widespread, definite product buildup on multiple product contact surfaces of a major piece of equipment or system resulting from neglected or inadequate cleaning.

Examples:

- a. Plugged evaporator tubes (unless cleaned during the survey).
- b. Unclean equipment caused by a CIP line that was plugged for more than one cleaning cycle.

2. Category B.

Incomplete cleanup leaving definite product residue on a product contact surface of a piece of equipment, or a deficiency that would be classified as category A except it is on the raw product side.

Examples:

- a. A plugged sprayball that has left a definite product residue on a product contact surface.
- b. A raw milk silo that was sucked in and does not clean properly.

3. Category C.

Slight product on product contact surfaces of equipment, or a deficiency that would be classified as category B except it is on the raw product side.

Examples:

- a. Slight product residue on an outlet valve.
- b. A plugged sprayball that has left a slight product residue on a product contact surface.

4. Category D.

Definite film on product contact surfaces, slight product residue outside the product zone, or a deficiency that would be classified as category C except it is on the raw product side.

DA INSTRUCTION NO. 918-PS

Examples:

- a. A slight product residue on a pump seal.
- b. Blue or white film on tank interiors.
- c. Slight curd remnants on a knife in an enclosed cheese vat.

5. Category E.

Films or very slight product on the exterior of equipment.

Examples:

- a. A slight product residue on the exterior of a product storage tank.
- b. Blue or white film on the exterior of a cheese vat.

Product or Product Contact Surface Contamination.

1. Category A.

It shall be considered a category A deficiency when the survey reveals conditions whereby the product has been contaminated by foreign materials. Such conditions could be related to building deficiencies, unsatisfactory equipment, or operation practices.

Examples:

- a. A serious condensation problem on the ceiling or overhead pipelines that drips onto cheese in a vat.
- b. A leaky roof in a processing area, or dust, dirt, or paint chips on the ceiling that are observed falling on exposed product.
- c. Equipment leaks, which allow nonpotable water or other nonfood fluids to mix with the product.
- d. Unsanitary handling or production practices that contaminates the product.

2. Category B.

It shall be considered a category B deficiency when the survey reveals conditions whereby product contact surfaces (but not product) have been or may become contaminated by foreign materials. Such conditions could be related to building deficiencies, unsatisfactory equipment, or operation practices.

Examples:

- a. A serious condensation problem on the ceiling or overhead pipelines that drips into an empty cheese vat.
- b. A leaky roof outside the processing area, or dust, dirt, or paint chips on the ceiling that can fall on exposed product.

3. Other Categories.

Observed contamination of product or product contact surfaces shall be either a category A or a category B deficiency. Other categories are not applicable to these deficiencies.

Processing Unwholesome Products.

It shall be considered a category A deficiency when the survey reveals conditions whereby unwholesome raw products are processed, or added to products, processed for human consumption. When the plant desires only "P" code approval, source plants for dairy ingredients need not be USDA approved. However, in any instance where products that have been rendered unwholesome are utilized for human food, regardless of the source of the products, the "P" code approval shall be denied and the INELIGIBLE status assigned.

Examples:

- a. Floor scrapings from either butter packaging or cheese cutting operations being utilized for butter, butteroil, or process cheese production.
- b. Reprocessing for human food of contaminated product containing grease, dirt, filth, or insects.
- c. Use of moldy butter or bulk cheese for further processing without prior cleaning.
- d. Use of salt contaminated with foreign material.

Manufacturing and packaging operations of butter and cheese often result in a certain amount of "scrap" such as butter or cheese that has seeped from forming heads or adheres to cutting frames, which has not been contaminated with unwholesome substances. This product can be reclaimed for human food and shall be clearly identified as (butter or cheese) for Reprocessing for Human Consumption (or words to that effect). Scrap that has been contaminated, comes in contact with floors, or has been removed during bulk product cleaning operations cannot be reclaimed for human consumption and shall be labeled "Fish bait," "Waste," or "Inedible Scrap" (or words to that effect) and "Not for Human Consumption" (see DA Instruction 918-I Section F).

Other Concerns Affecting Plant Status.

There are numerous other deficiencies which also affect status when considered singly or in combination. These items can be found in the guidelines of in Section V.

E. Supervisory Review and Distribution of Report.

In connection with the supervisory review of the survey report to determine status, it is also the reviewers' responsibility to check the report comments and recommendations for clarity and conformity to USDA policy. When necessary, changes should be made. Major changes should also be brought to the attention of the inspector and the inspectors immediate supervisor to promote proper preparation of future reports.

Each survey report should be transmitted with a letter that present status information and outlines DMC, Salmonella, and Alternate Fats test results, when applicable.

Distribute the official report and accompanying transmittal letter as follows:

- Original to the National Field Office.
- One copy to plant manager.
- One copy to another interested party designated by the manager or to the applicant in those instances when the plant is not the applicant.
- One copy to the cooperating state agency.
- One copy to the Branch Chief in Washington.
- One copy to the inspector.

IV. Discussion of the Survey with Plant Management

A. Exit Interview.

Upon completion, discuss the survey with the plant management and any plant personnel the manager wishes to have present. Go into the meeting properly prepared to clearly present your observations and recommendations, and the reasons for them. To facilitate this review the preliminary copy of the report should be completed before beginning the exit interview. Allow the plant management to make as many copies of the report as they wish. This discussion with management is an important part of the plant survey.

Take the time to discuss each of your recommendations and the plant conditions which caused you to make them. During the discussion, stress any "repeat" recommendations and those which concern sanitation, wholesomeness, product quality, etc. These recommendations can be "flagged" with asterisks (*) or an up arrow (↑) up on the report. "Flags" can also be used for recommendations that, in your opinion, should move up a category on next survey if corrections have not been made. If "flags" are used stress the fact that the USDA considers all the recommendations in category D and above to be important and expects that progress will be made in addressing them all.

Management intentions or commitments for correction of serious deficiencies in the facilities or equipment should be presented in writing and reported to the National Field Office for consideration when assigning these deficiencies to a category. Attach the letter to the report if it is available, otherwise have the plant manager mail it to the National Field Office.

Review the plant's product codes with management to determine if updating is required or any changes are requested. Product codes can be added if the appropriate equipment was included in the survey. Product codes that are deleted shall be listed on the survey report as INELIGIBLE or NO STATUS ASSIGNED (see Section III, item B).

Review recent improvements and inquire if your listing is complete. Report follow-up on previous survey recommendations and acknowledge any other major upgrading, such as new construction, new equipment, etc.

A copy of the preliminary report should be left with the plant manager following the exit interview. On the occasional instance where scheduling requires you to leave, notify the National Field Office so the mailing of the completed report can be facilitated. Written notification shall be left with the plants management when recommending assignment of the INELIGIBLE status. If this status assignment is the result of a cursory inspection (in conjunction

DA INSTRUCTION NO. 918-PS

with salmonella sampling, processing lines, etc.) the Cover page and Page Z should be left detailing the conditions at the plant and the status assignment. If the survey Pages are not available, a memo shall be left. This memo shall include:

1. The date.
2. The name of the plant.
3. The plant number.
4. A description of the deficiencies that resulted in the INELIGIBLE status.
5. The grader's signature.

Following this procedure should eliminate any confusion or misunderstanding between USDA and the plant.

Advise management that your recommendations are subject to change through supervisory review at the National Field Office. Therefore, the official report should be carefully reviewed when it arrives at the plant.

B. Plant Status Recommendation.

Every survey report shall have the inspector's recommendation for status as determined by the number of deficiencies listed in the status recommendation worksheet. Advise the manager about your recommendation, but emphasize that the determination may be altered by the National Field Director or a delegated assistant. The Director's decision will be reflected in the transmittal letter for the reviewed, official report.

V. Guidelines for Performing Plant Inspections

DA INSTRUCTION NO. 918-PS

Index

3-A Sanitary Standards	3, A-16
Aluminum	A-4, B-19, B-22, B-27, B-28, B-33, C-13, C-29, D-19, D-25, D-33, D-42, D-43, D-46
Antimycotics	C-37
Bearings	C-13, C-33, D-15, D-21, D-43
Blender	G-7
DMC	C-16, C-17
Mill	D-46
Black iron	A-5, A-8, A-70, A-71, B-29, C-13, C-27, C-28, D-12, D-19-21, D-42-44, E-3, E-7, H-5, M-6
Block-and-bleed systems	A-12, A-57
Brass	A-70, B-33, B-34, D-12, E-3, E-6, E-7
Bulk Cheese Markings	C-36
Butter Packaging Machine	
Benhil	B-34
Morpac	B-33
Butteroil	
Storage	B-17
Cadmium	D-43
Cast iron	K-7
Cheese mites	3, A-63, A-64, A-68
Churn	
Cream filter	B-18
Churn Number	B-30
CIP System(s)	A-44
Block-and-bleed	A-49
Covers for solution tanks	A-51
Recording thermometer	A-50
Strainer or filter	A-51
Cleaning Facilities	
CIP	A-26
COP tank	A-26
Condensate	A-8, A-9, B-41, C-1, D-5, D-42, D-43, E-8, H-5, H-8-9, K-13
Condensation	34, 35, A-7, A-17, A-53, B-41, C-26, D-10, D-25, E-13, H-3, K-9
Constant Level Tank	B-5, B-7, M-5
Copper	A-70, C-19, C-24, C-29, E-3, E-4, E-7, M-6
Cross Connections	A-49
Culinary steam	A-71, A-73, B-9, B-11, B-16, B-29, C-17, C-20, D-5, E-2, H-5, K-3, K-10, M-6, W-14
Butter remelt	B-13
Not required	A-60, E-7
Cursory Surveys	8
Defoamers	C-21

DA INSTRUCTION NO. 918-PS

Dermestid insects	A-68
Direct Set Starter	C-8
Dry Products Changeover	D-17
Enzyme Modified Cheese	C-14
Fiberglass	A-45, A-71, C-23, E-4
Filtered air	C-8, C-12, C-26, C-28, D-29, G-5, N-2, N-3
Flies	A-68
Grade A	A-47
Grandfathered Equipment	A-17
Hand Washing Facilities	A-22, A-54, B-22, C-21, G-15, N-9
Hoop Washer	C-27
Housekeeping	A-20, A-52, A-61
Clear space around the perimeter	B-42, D-39, E-13, K-2, K-4
HTST	
Broken Seal	B-4
Charts	B-7
Dual controller-recorder	B-5
Holding tube	B-7
Regenerator	B-7
Sealed	B-3
Taylor flow diversion valve	B-6
Timing pump	B-8
Vacuum breaker	B-7
Hydraulic cylinders	K-7
Indicating Thermometers	A-39, A-42, B-7, B-10, B-13, C-10, C-36, E-1, K-11, M-2-5, W-14
In-out storage	M-3, M-5, W-3-5
Lighting & Ventilation	
Category A deficiency	A-8
Category B deficiency	A-8
Category C deficiency	A-9
Category D deficiency	A-9
Fluorescent tubes	A-7
Incandescent bulbs	A-7
Mercury or sodium vapor	A-7
Mold	A-7
Maximum age of milk	A-41
Membranes	
Pasteurization requirements	M-1
Recirculation line	M-4
Mold	35, A-7, A-17, B-18, B-27, B-41, C-26, C-39, C-40, D-10, E-13, H-3, K-2, K-4, K-6, K-13, N-6
Natamycin	C-37
Nondairy Equipment	C-13, C-38, G-6, K-13, N-5
Nondairy Products	A-11, C-13, C-14, D-4, G-6, G-13, H-4, H-5, K-4, K-13, N-5, W-6
Pasteurization	B-2
Added sugar or solids	C-2
Anhydrous milkfat	B-15
Blended products	D-4
Butter milk	D-3
Cheese cooker	D-5
Cheese milk	C-2
Cheeses	C-2

DA INSTRUCTION NO. 918-PS

Condensed milk	D-2
Condensed milk for cheese	C-4, D-3
Condensed whey	D-4
Condensed whey 40% solids	D-4
Cream	B-2, B-10
Cream for butter making	B-10
Dual controller-recorder	C-3
Evaporated milk	E-2
Fluid milk	B-2
Frozen cream	B-14
Grade A dry whey	C-7
HHST	B-9
Plastic cream	B-14
Process cheese	K-11
Reconstituted NDM	C-5
Skim milk	D-2
Sugar for sweetened condensed milk	E-4
Ultra-pasteurization	B-9
Vat method	B-2
Whey 40% solids	W-5
Whey cream	C-6, W-16
Peroxide	C-14, D-5, M-7, W-6, W-7
Pest Control	A-51, A-52
Category Assignments	A-67
Cheese mites	A-63, C-36
Dermestid Insects	D-27, D-29, D-38
Flies	A-1
Fly control	A-63
Knockdown type spraying	A-62
Residual type insecticides	A-62
Roach control	A-63
Rodents	A-1
Use of baits	A-63
Plugged evaporator tubes	33
Pneumatic cylinders	B-34, K-7, W-13
Potable Water	A-22, A-55, A-69, C-5, C-13, C-18, H-5, K-3, M-6, M-15, W-9
Backflow preventer	A-57
Two pipe diameters	A-57
Process Water	A-55
Backflow preventer	A-57
Two pipe diameters	A-57
Product Rinsings	
Chlorine	A-58
Potable water rinse	A-57
Sanitizer	A-58
Pumps, Pipelines, & Valves	
Air operated valve	A-15
Ball valves	A-14
Block-and-bleed	A-12
Butterfly valves	A-14
Bypass piping	A-13

DA INSTRUCTION NO. 918-PS

Compression valves	A-14
Dairy metal	A-11
Dead ends	A-13, D-1
Disc-type filter	E-3
Flexible connectors	D-20
Flexible hose	A-13
High pressure pump	D-11
Insulation	A-13
Koltek Shutter style valve	A-15
Plug valves	A-14
Sand blasted surface	B-27
Shot peened surfaces	B-33, C-19
Standpipes	A-13
Star valves	D-20, G-15
Vacuum breaker	D-4
water seal	A-10
Wedge wire	A-15
Woven wire	A-15
PVC	A-9, C-24, C-27, C-29
Rancid Flavor	A-32
Raw Products Testing	
Grade A quality program	A-27
Sediment and other standards	A-29
Recording Thermometers	A-26, A-39, A-40, A-43, A-44, A-49, A-50, B-26, C-10, D-8, D-9, E-2, K-11, M-2-5, W-14
Regeneration	B-5
Rework	A-54, K-14
Butter	B-37
Roaches	A-68
Rodent	A-51, A-66, A-67
Room Construction	
Bulk milk receiving	A-23
Category A deficiencies	A-5
Category B deficiencies	A-5
Category C deficiencies	A-6
Category D deficiencies	A-6
Doors	A-55
Drains	B-39, B-40, D-28, G-1, G-5, G-10, H-3
Electrical panels	A-65
Enclosed stair wells	A-65
False ceilings	A-65
Floating floors	A-5, A-6
Handrails	A-65
Pipe service openings	A-65
Receiving stations	A-21
Strip curtains	A-4
Toilet rooms	A-1, A-55
Ventilation ducts	A-65
Windows	A-55
Sanitary Practices	
Dry cleaned	A-53

DA INSTRUCTION NO. 918-PS

Unhygienic practices	A-52
Sanitizers	A-26, A-52, A-53, E-1, E-6
Scrap	35, A-54, B-13, B-15, D-36, N-6, N-8
Markings	36, A-54, B-38, D-30
Secondary Starter	C-8, C-9
Separator	
Sludge	B-2, C-1, C-19, W-2
Shrink wrap	D-33
Signs	A-55
Sintered material	D-31
Source Ingredients	
Casein	A-46
Grade A dairy products	A-47
Steel	B-1, C-33
Barrels	C-26, K-15, N-6
Wires	B-32, K-7
Steel wool	A-26, K-12
Storage Tanks	
Fiberglass lining	A-45
Plastic lining	A-45
Storage Tanks - Horizontal	
Air agitation	A-40
Direct reading gauges	A-44
Glass-lined	A-45
Indicating thermometer	A-42
Mechanical agitator	A-41
Vertical agitators	A-43
Storage Tanks - Silo	A-39
Air agitation	A-40
Buckling	A-41
Control area (alcove)	A-42
Indicating thermometer	A-39
Recording chart	A-40
Recording thermometer	A-39, A-40, A-43
Storage temperature	
acid whey	W-4
Batch tanks	E-4
Bulk cheese coolers	K-1, N-1
Canned milk	E-8
Condensed Product	D-8, D-9
Condensed whey	D-8
Cooker/stretcher water	C-18
Cow water	A-72
Cream for butter making	B-13
Evaporated or sweetened condensed milk	E-13
Freezers	B-41
Paraffin	C-36
Raw milk	A-39, A-42
Rinsings	A-56
Salty whey	W-14
Sweet whey	D-9

DA INSTRUCTION NO. 918-PS

Whey rinsings	A-56
Super saks	D-32, D-33, D-38, G-10, H-1
Surge Tank	
Condensed milk	D-11
Cream	B-18
Evaporated milk	E-6
Membrane systems	M-5
Sweetened condensed milk	E-6
Survey Report	
Up arrow	37
Unwholesome Products	A-53
Vacuumizer	B-7
Vat Pasteurizer	B-4
Air space heater	B-11
Air space thermometer	B-10
Chart	B-10
Covers	B-11
Indicating thermometer	B-10
Outlet valve	B-11
Recording thermometer	B-10
Water (Wash & Composition)	
Butter milk	B-21
Chlorination	B-21
Filter	B-22
Water	B-21
Whey Cream	
Cooker/stretching water	C-17
Pasteurization requirements	W-16
Standardizing cheese milk	C-6, W-16
Wood	A-5, B-22, C-35