

Processing Plant Superintendent 2015 Regulatory Update

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DMC 1505 – Application to Install / Modify Dairy Processing Equipment

Every equipment installer shall submit plans for the construction, reconstruction or extensive renovation of a milkhouse, milking barn, stable or parlor in a dairy farm or **for the construction, reconstruction or extensive renovation of a transfer station, receiving station, or milk plant, or for the installation or modification of milk handling equipment** on dairy farms or **in milk plants**, transfer stations or receiving stations in a form approved by the Commissioner and shall set forth and **describe the equipment to be installed and the manner of installation**. No work shall be done unless the plans therefor are submitted to the commissioner and the commissioner determines that the work to be done will not cause the dairy farm, milk plant, transfer station or receiving station, as the case may be, to be in noncompliance with the provisions of this Part. If the commissioner approves plans, all work shall substantially conform to the approved plans.

From NYS Part 2 - §2.64

DMC 1505 – Application to Install / Modify Dairy Processing Equipment

When do you need to submit an application?

Modifications to a process that requires fabrication work on sanitary lines

Examples - Adding new process piping, CIP piping and equipment

Installation of new process equipment

Examples – New (or used) filling equipment, blenders, storage tanks

Installation of Equipment or Processes that Affect the Product

Examples – Pasteurized water systems for product flushes, air blow systems or pipeline pigging systems, fruit addition / mixing systems

Process plant expansions / Expansion of Ingredient or Product Storage

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When do you NOT need to submit an application?

Processing product from Tank A to filler B through series of piping and valves using Pump C. You want to change out Pump C with Pump D, which is the same make & model except maybe a slightly larger (or smaller) motor. There is no change to the overall process, no modification of piping – no need to submit an application.

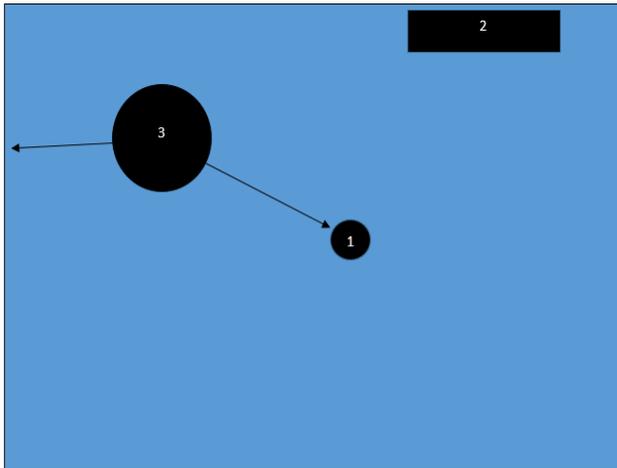
You're debited on an inspection for not having proper back flow prevention on a water line – we do not need an application.

DMC 1505 – Application to Install / Modify Dairy Processing Equipment

- Process Narrative / Process Description
 - Description of your process to accompany the schematic that you submit with your plans and application
 - Process and Instrumentation Drawings (P&ID) do not tell the whole story
 - What products will you be making
 - Storage and processing temperatures
 - Where in the process you will add ingredients
 - Incubation times & temperatures
 - Cleaning Procedures
 - Etc., etc., etc.
 - Please reference drawings in the narrative when possible
 - Format – Narrative, Flowchart, Tabular, other

Submitting Information

- It is preferred that you submit Application and Narrative electronically
- Complex process drawings and layouts need a legible hard copy submitted
- Plant Layout
 - show distances of equipment to walls, to other equipment, to drains
 - Traffic patterns of employees, forklifts, etc.
 - Entrances, **locations of restrooms**
 - Can be simple, consider an index to prevent overcrowding the drawing



1 = floor drain

2 = wash vat

3 = vat pasteurizer

Distance from 3 to wall = 36"

Distance 3 (vat) to 1 (drain) = 49"

Submitting Information

- Simple but detailed
 - Remember that not everyone reviewing the plans will understand your plant
 - Be sure to distinguish what is existing and what is new work
 - **Note:** Equipment drawings, brochures
- Process and Instrumentation drawings
 - Color coded – directional arrows – provide a symbol key

DMC 1505 – Application to Install / Modify Dairy Processing Equipment

Applications are fillable electronically and can be signed digitally

File Naming: A naming scheme is necessary when sending the applications by email for filing purposes

Example: “Emchar Dairy – DMC 1505 – line A modification 3-2015”

Inspection of an Installation / Modification Project

- Scheduling - Keep us updated, schedule reviews of your project
- Managing the inspections
 - Large vs. small projects
 - Some installations may require several visits, meetings, etc.
 - Schedule recurring visits (ex. Every other Tuesday at 9:00am)
 - Keep a log of each visit / table
 - Stay on us to get into the facility as the project moves along or as equipment arrives
 - Easier to inspect as it goes in rather than during the “shaking the bugs out” process
- Communicate with us as early as possible

Milk Tanker Washing and Wash Tags

Milk Tanker Washing

- Wash Tags – from the 2013 PMO Item 12p
Whenever a milk tank truck has been cleaned and sanitized, as required by the Regulatory Agency, it **shall bear a tag or a record shall be made showing the date, time, place and signature or initials of the employee or contract operator doing the work**, unless the milk tank truck delivers to only one (1) receiving facility where responsibility for cleaning and sanitizing can be definitely established without tagging. The **tag shall be removed at the location where the milk tank truck is next washed and sanitized and kept on file for fifteen (15) days as directed by the Regulatory Agency.**

Milk Tanker Washing

Wash Tags – from the 2013 PMO Appendix B

5. Wash and Sanitize Record:

a. The **bulk milk hauler/sampler shall be responsible** for assuring that the milk tank truck has been properly cleaned and sanitized at a permitted milk plant, receiving station, transfer station, or milk tank truck cleaning facility. A **milk tank truck without proper cleaning and sanitizing documentation shall not be loaded or unloaded** until the proper cleaning and sanitization can be verified.

Milk Tanker Washing

b. A cleaning and sanitizing tag shall be affixed to the outlet valve of the milk tank truck until the milk tank truck is next washed and sanitized. When the milk tank truck is washed and sanitized, the previous cleaning and sanitizing tag shall be removed and stored at the location where the milk tank truck was washed for a period of not less than fifteen (15) days.

Milk Tanker Washing

C. The following information shall be recorded on the cleaning and sanitization tag:

- (1) Identification of the milk tank truck.
- (2) Date and time (optionally, in military time (24 hour clock)) of day the milk tank truck was cleaned and sanitized.
- (3) Location where the milk tank truck was cleaned and sanitized.
- (4) Signature or initials of the person who cleaned and sanitized the milk tank truck.

COMPANY NAME	
HAULER NAME	_____
TRAILER/TRUCK NO.	_____
LICENCE PLATE NO.	_____
CLEANING&SANITIZING	
DATE	_____
TIME	_____ AM PM
PLACE	_____
SIGNATURE OF PERSON WHO CLEANED THE TANKER	
MILK PUMP, LOADING HOSE, VALVES, CROSSOVER HOSE AND CABINET AREA CLEANED AND SANITIZED BY:	
SIGNATURE	_____
DATE	_____

Milk Tanker Washing

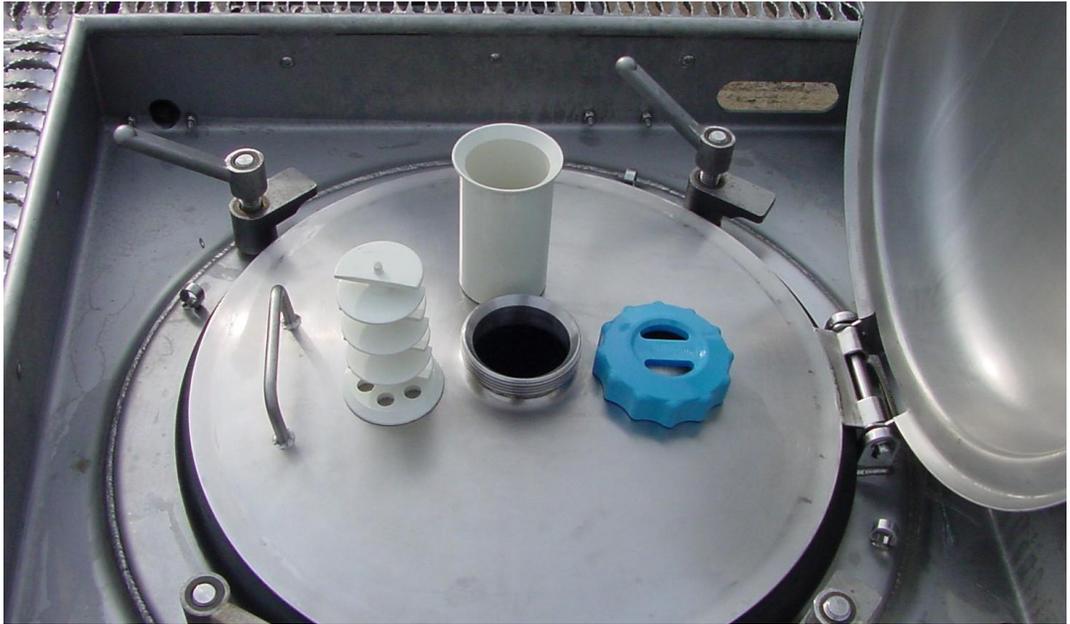
Maintaining Removed Wash Tags – stored convenient for evaluation by regulatory agencies

Storing Blank Tags – secure location, only accessible to employees of the plant working in the receiving area, consider storing in locked cabinet

Milk Tanker Washing

- Not just the interior of the tanker
- Several manual wash items on a tanker

- Which parts of the tanker is your plant washing?





Milk Tanker Washing

Who will take responsibility for the manual wash items?

- **Access** to manual wash items at top of tanker

When your staff signs the wash tag your facility is accepting responsibility that the tanker has been washed

Do you have appropriate facilities?

- COP tub with baskets and hook up to wash hoses
- Manual wash detergent available
- SANITIZER available in the receiving bay



- Be aware of cleaning issues
- Be alert to damage on tankers
 - Hoses, pumps, poor gaskets, etc.
- You don't need us (i.e. NY) to address the issue - **You're buying the milk on that tanker**
- Take pics, make phone calls, follow up



Good Manufacturing Practices & Preventing Cross Contamination

Observances & Reminders

Storage

- Ingredients
 - Maintain bagged products in a neat and orderly manner in a dry, protected, designated storage area.
 - Shelving should be easily cleanable / wood shelving must be sealed
 - Store ingredients properly – according to label
 - Some FD ingredients come in pails – some are required to be refrigerated / some not
 - Seal and identify contents of partially used ingredients. Avoid wire twist ties or ties that could get into product.
 - Protect containers / utensils used for ingredient transfer when not in use.
 - Scoops, pails, etc.



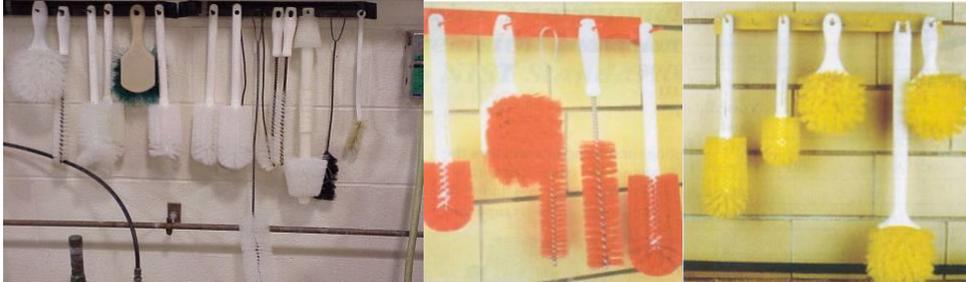
Storage

- Finished Product containers
 - Clean, dry designated area – off the floor and away from the wall
 - Shelves, pallets
- Designated area - Ingredients and product containers not stored with or adjacent to waste containers, cleaning chemicals or other items that pose a contamination risk
- Finished Product Storage – off floor, away from **drains (maintain proper drain cleaning program – especially in coolers)**
 - Stacking cases - Be aware of leaking containers
 - Placement in cooler – Avoid storing below cooling fans (leaky condensing units)

Utensils for processing / manual washing

- Brushes
 - Use designated brushes for equipment food contact surfaces only.
 - Use separate cleaning items for floor cleaning, exterior equipment, etc.
 - **Equipment for cleaning drains should be separate, identified & stored isolated.**
 - Hard plastic handles / solid bristles
 - **Identify - Color coded** to restrict use in designated areas
 - AVOID WOODEN HANDLED ANYTHING IN YOUR FACILITY
- Pails used for cleaning vs. Ingredient / Product Transfer
 - Identify - **Color coded** to restrict use
 - Label Properly – if transferring cleaning chemicals from large drums to smaller pails the labeling on the pail should match the drum

Cleanliness of Food Contact Surfaces



Brushes:

Appropriate sized for the job

Designate Brushes, Color Coding

- white = pasteurized food contact
- red = raw food contact
- yellow = equipment exteriors
- black = environmental, drains



Manual Cleaning

- During cleanup, place all equipment parts, lines, cleaning aids, etc. on rubber mats or carts specifically designated for such purposes.
- **Never place clean parts on the floor.**
- **Store rubber mats off the floor.**

Assembling Equipment



Slide the o-ring into the groove on the bearing holder, and lubricate.

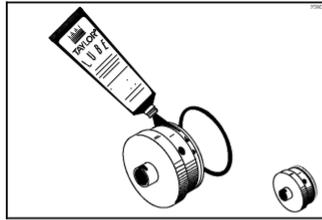


Figure 9

Lightly lubricate the draw rod, and slide the bearing holder onto the rod, locking stem first.

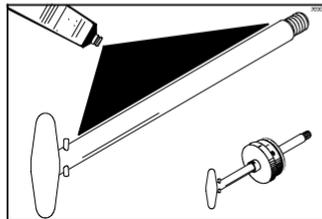


Figure 10

Lightly lubricate the inside of the valve body in the freezer door.

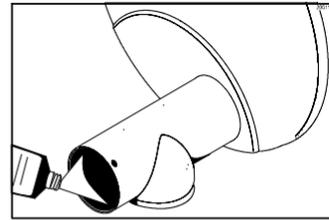


Figure 12

Insert the draw rod assembly, valve piston first, into the valve body.

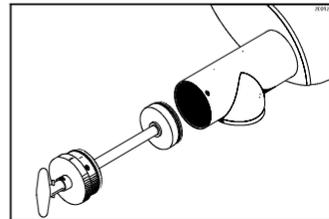


Figure 13

Pest Control

- Maintain a proper pest control program - Contract with a reputable pest control company
- Reduce entrance areas
 - Reduce openings – use self closing doors, air curtains at receiving areas when doors are open
 - Evaluate doors – are they tight fitting all the way around the door
 - Windows properly screened if opened during warm weather – consider casement (non-opening) windows
 - Lighting above doors should be avoided – if it cannot then use low UV lights
- Maintain exterior – keep weeds and other vegetation to a minimum, avoid landscaping within 30 feet of the facility
- Feed Storage - minimize spillage

Miscellaneous – Air / Steam

- Air directed at product contact properly filtered
 - Air blow assemblies
 - Air agitation of bulk tank milk
 - Cheese presses
 - Pressurized overrun air for continuous IC freezers
- Plant Air
 - Overpressure in process area (i.e. positive air)
 - Filtered air inlets
 - What's going on outside – where is your air inlet??? City vs. Producer Dealer
 - Placement of Batch Freezers in the facility

Miscellaneous – Air / Steam

- Steam for Vat Pasteurizer Airspace
- Injection for Cheese Cooking
- Properly filtered – meets PMO Figure 51 (or 3-A Accepted Practice 609-03)
 - Entrainment Strainer – filters all particle $\geq 10\mu\text{m}$ in size
 - Final Filter – filters all particles $\geq 2\mu\text{m}$ in size
- Boiler chemicals meet 21 CFR 173.310



*The most difficult thing
about quotes on the internet
is verifying them.*

- Abraham Lincoln