

OHIO DEPARTMENT OF AGRICULTURE

DAIRY DIVISION

Date: _____

License Number: _____ - _____ - _____

GUIDE FOR THE SUBMISSION OF PLANS
FOR MILKING OPERATIONS

Proposed Project _____ Project Completion Date _____

Farm Name _____

Name of Producer _____ Telephone # _____

Address _____

City _____ State _____ Zip Code _____

County _____ Township _____

Equipment Dealer/Installer _____

Address _____ Telephone # _____

City _____ State _____ Zip Code _____

Field Representative _____ Telephone # _____

Address _____

City _____ State _____ Zip Code _____

District Sanitarian _____ District _____

Before work begins, please submit properly prepared plans for all milkhouses, milking barns, stables, and parlors regulated by the Dairy Division, which are constructed, reconstructed, or extensively altered. For alterations to existing licensed operations, fill out those sections applicable along with appropriate drawings. Please complete the information requested in all sections, **attach the necessary drawings**, and submit the completed package to the Milk Sanitarian for the District in which your dairy operation is located. You may contact either your marketing representative or the Ohio Department of Agriculture, Dairy Division (Telephone # 614-466-5550) for the name of the Milk Sanitarian in your District. You may also submit plans directly by mail to the Ohio Department of Agriculture, Dairy Division, 8995 East Main Street, Reynoldsburg, OH 43068, or by email to dairy@agri.ohio.gov. Be sure to include drawings if sent by email.

This guide is intended to provide a format for the submission of the information and drawings essential for plan approval. All workmanship and materials must comply with applicable standards.

Following plan approval for all proposed milking installations, a completed "Application For Milk Producer License" form, evidence of a safe water supply, and the application fee must also be submitted. When the installation is completed and the operation is ready for inspection prior to licensure, your District Milk Sanitarian must be contacted to schedule an inspection. When alterations to existing licensed operations are completed, contact your District Milk Sanitarian to schedule an inspection.

CONSTRUCTION INFORMATION

	Milkhouse	Milking Barn or Parlor
Flooring Material:	_____	_____
Walls: Material	_____	_____
Finish & Color	_____	_____
Ceiling: Material	_____	_____
Finish & Color	_____	_____
Heating:	_____	_____
Ventilation:	_____	_____
Doors: Construction	_____	_____
Lighting: Number	_____	_____
Type	_____	_____

Attach detailed drawing(s) showing the following:

1. Milkhouse location and layout to include: Wash vats, location of milk receiver and moisture trap, location of pre-cooler, hand sink, bulk tank(s), (chart recorder if applicable), entrances, hose port, hose port pad (material & size), lighting fixtures, equipment racks, drains, and distances of pieces of equipment from each other and the walls. Also include adjacent rooms which contain compressor(s), water heaters or other equipment.
2. Milking barn or parlor to include: Layout, traffic pattern, and adjacent holding or housing areas. In parlor operations show pipeline details to include: location of receiver and moisture trap, milk lines, CIP lines, inlets, milk meters, direction of milk flow, and milk line high point.

NOTE: The equipment used in this installation shall conform to or exceed 3A accepted practices for the design, fabrication and installation of milking and milk handling equipment. All sections of milk pipeline must be accessible for inspection, and all pipeline ferrules must be welded. Rolled or pressed-on ferrules on new pipeline installations are no longer accepted. Installing a used pipeline system on a farm is considered a new installation, and must adhere to the requirements listed above.

NOTE: All drain lines or hoses emanating from wash vats, receiver jars, bulk tank washers, water softeners and/or other equipment can not be plumbed directly to a floor drain. There must be an air gap between these lines and/or hoses and the floor drain. It is also recommended that these lines and/or hoses be up off the floor.

I. TYPE OF MILKING OPERATION

- A. Pipeline System
- B. Pails
- C. Direct Load
- D. Automatic Milking Installation (Robotic)

Number of AMI's _____
 (For AMI's, complete sections IV, V, VI, VII
 VIII, IX, X, XII)

TYPE OF MILKING AREA

- A. Parlor
 - Parallel
 - Herringbone
 - Rotary
 - Basement
- B. Stanchion Barn
- C. Tie Stall Barn
- D. Other: _____

II. FABRICATION OF MILKING SYSTEM

A. Milk Line

- 1. Materials _____
- 2. Diameter (in) _____
- 3. Length (ft) _____
- 4. Welded Yes No
- 5. Gasketed Yes No
- 6. Slope (in. per 10ft) _____
- 7. High Line Yes No
- 8. Max. height from floor (in) _____
- 9. Low Line Yes No

B. Receiver:

- 1. Number of inlets _____
- 2. Size of milk inlets (in.) _____
- 3. Size of vacuum inlets (in.) _____
- 4. Sanitary Trap: Yes No Location _____
- 5. Are automatic drains being used? Yes No
- 6. Is the drain hose off the floor? Yes No

Auxiliary Milking Equipment	Number	Manufacturer	New	or	Used
1. Milking Claws	_____	_____	<input type="checkbox"/>		<input type="checkbox"/>
2. Milking Pails and Lids	_____	_____	<input type="checkbox"/>		<input type="checkbox"/>
3. Milk Meters	_____	_____	<input type="checkbox"/>		<input type="checkbox"/>

Auxiliary Milking Equipment (cont.)	Number	Manufacturer	New	or	Used
4. Milk Weighing Devices	_____	_____	<input type="checkbox"/>		<input type="checkbox"/>
5. Automatic Take-Offs	_____	_____	<input type="checkbox"/>		<input type="checkbox"/>
6. Automatic Backflush	_____	_____	<input type="checkbox"/>		<input type="checkbox"/>
7. End of Milking Indicators	_____	_____	<input type="checkbox"/>		<input type="checkbox"/>
8. Milk Filtration	_____	_____	<input type="checkbox"/>		<input type="checkbox"/>
9. Transfer Station	_____	_____	<input type="checkbox"/>		<input type="checkbox"/>
10. Other (Explain)	_____				

III. VACUUM SYSTEM

1. Main Air Line Material _____ Diameter (in.) _____ Length (ft.) _____
2. Pulsator Air Line Material _____ Diameter (in.) _____ Length (ft.) _____
3. Automatic Drains in Pulsator Air Lines? Yes No
4. Number of Clusters _____
5. Vacuum Pumps: Brand _____ Model _____ Hp _____
6. Total Vacuum Pump Capacity _____ CFM/ASME at 15 in. Hg _____
7. Vacuum Regulator: Brand _____ Model _____
8. Number of Distribution Tanks _____
9. Other (Explain) _____

IV. MILK COOLING AND STORAGE SYSTEM (**Direct Load see section XI**)

1. Pre-Cooler: Brand _____ Type _____ Number _____
2. Type of coolant _____ Bulk Tank Mfg. Date _____
3. Bulk Tanks/Silo: Brand _____ Model _____ Serial No. _____
Milk Capacity (gal) _____ Cooling Capacity BTU/hr. _____

Are milkline or pump drains being used? Yes No If yes, location? _____

Is the milk load out pump used as a wash pump? Yes No

How is the milk load out hose washed, drained and stored if kept at farm? _____

NOTE: All farm bulk tanks manufactured after January 1, 2000 shall be equipped with an approved temperature recording device.

V. WASH AND SANITIZING SYSTEM

NOTE: It is recommended that the water temperature during the wash cycle be maintained above 120° F.

Automatic System Manual System

Automatic Pre-Rinse Diverter Valve: Yes No

Wash Cycle Pre-Rinse Temp: _____°F Gallons _____

Wash Cycle Temp: _____°F Gallons _____

Acid/Post Rinse Temp: _____°F Gallons _____

Sanitize Cycle Temp: _____°F Gallons _____

Wash Manifolds: Yes No

NOTE: If cleaning chemical and/or sanitizers are pumped from a container larger than one (1) gallon and the pumping unit is connected to a WATER SOURCE and there is NO AIR GAP present, then a BACK FLOW PREVENTION DEVICE is required upstream of where the cleaning and/or sanitizing agents are added to the system.

VI. MANUALLY CLEANED COMPONENTS (Explain all that apply)

1. Diverter Plugs _____

2. Manual Shut-Off Valves _____

3. Bulk Tank Outlet Valves _____

4. Butterfly Valves _____

5. Fresh Cow Pails (proper storage) _____

6. Other (Explain) _____

VII. PHYSICAL SEPARATION OF WASH SYSTEM (LINES) FROM:

1. Milking System during milking: Yes No

2. Milk Tank during milk storage: Yes No

3. Other (Explain) _____

VIII. WATER SUPPLIES

1. Type of water supply (Drilled Well, Pond, Spring, Public, etc.) and location. _____

2. Do you have more than one water supply? Yes No If Yes, Type and Number:

3. Are your multiple supplies connected thru a common manifold? Yes No

4. The following water system applications require a reduced pressure zone back flow prevention device (double check valve assembly with an atmospheric break). Indicate the ones which apply to your system:

- A. Drilled-Well and/or Public Supply (local code requirement)
- B. Protection between potable and non-potable supplies
- C. Protection at chemical injection sites
- D. Protection at submerged inlets
- E. Protection at manure pan flush site

5. Will you be installing a high pressure washer which requires a pressure relief valve and/or a low pressure cut off switch? Yes No

Type of Protection: _____

6. If you are using a surface supply of water (Pond or Cistern) have you installed a positive disinfection system? Yes No

Type of Disinfection: _____

IX. WATER HEATING EQUIPMENT

1. Type of Water Heater: Electric Gas Other

2. Capacity of Water Heater: _____ Gallons

3. Recovery Rate Gal/Hr/100F Rise: _____

4. Additional Heating Systems Type: _____

X. CATTLE WATERING SYSTEM

1. What type of supply will you be using to provide water for your cattle? _____

2. Is system separate from the milkhouse supply? Yes No

3. If connected to the milkhouse supply, does proper back flow prevention exist? Yes No

Type: _____

XI. DIRECT LOAD SYSTEM

1. Pre-cooler / chiller: Brand _____ Type _____
2. Type of coolant _____
3. Sampling Device _____
4. Is the sampling device located inside a refrigerator? Yes No
5. Are collected samples stored in a refrigerator? Yes No
Location? _____
6. Type and location of temperature recording devices: _____

7. Type and number of load-out doors. _____
8. Is the tanker parking in an enclosure or on an exposed pad? Enclosure Pad
9. Location of tanker pad drains and terminus of drains. _____

XII. AUTOMATIC MILKING INSTALLATIONS

Automatic Milking Installations (AMI's) will be reviewed on each plan submission and installation for compliance. Please provide the following documentation on as many attached sheets as needed:

1. Dictate how the installation meets all provisions of Appendix Q of the PMO adopted under Ohio Administrative Code 901:11-1-02;
2. Include system flow drawings, for both milk and CIP;
3. Include building drawings and layouts for the milkhouse and parlor;
4. Provide a valve function testing protocol for the system;
5. Provide any documentation for 3-A Sanitary Standard compliant components;
6. Provide any FDA issued guidance (M-I's, M-A's or M-B's) specific to the model of machine being installed;

NOTE FOR ALL PLANS: Attach detailed drawings of the milkhouse/load-out area to include location of pre-cooler/chiller, recording devices, sampling device for direct load, layout of pipeline, CIP line, and all truck hose connections.

<i>Sanitarian and Office Use Only</i>		
Date Received by Sanitarian	Received by Central Office	Plan Approval
_____	_____	_____

Sketches/Drawings:

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