

33rd NATIONAL CONFERENCE ON
INTERSTATE MILK SHIPMENTS

Proposal #:	121 AMENDED
Committee:	Scientific

	No Action	Passed as Submitted	Passed as Amended
COUNCIL ACTION			X
FINAL ACTION			X

C. Proposed Solution

Changes to be made on page(s):	174-177	of the (X - one of the following):
<input checked="" type="checkbox"/> 2009 PMO		2009 EML
<input type="checkbox"/> 2009 MMSR		2400 Forms
<input type="checkbox"/> 2009 Procedures		2009 Constitution and Bylaws

Make the following changes to the 2009 Pasteurized Milk Ordinance. Appendix D V and VI

PROPOSED AMENDMENT TO PROPOSAL 121
APRIL 29, 2011

- **16 Bold text is new proposed wording in the original proposed solution.**
- **~~Double struck through~~ text is wording in the original proposed solution that is proposed to be deleted.**

Amendment: 2009 PMO Page ~~173~~ **174** Insert at end of section IV **and directly above the note.**

Criteria for the Acceptability of a UV Disinfection Unit for Farm Water Supplies with a Flow Rate Less Than 20 Gallons Per Minute:

1. When used to disinfect water to potable drinking water standards, UV light shall be applied so that the entire volume of water receives at least a minimum reduction equivalent dose of the

~~following dose: UV at 2,537 Angstrom (254 nanometers) of at least 40,000 microwatt-seconds per square centimeter, or equivalent to achieve a an EPA log virus reduction equivalent dose.~~

2. A flow or time delay mechanism shall be provided so that all water moving past the flow stop or divert valve receives the minimum dose required above.

3. The unit shall be designed to permit the frequent cleaning of the system without disassembly of the unit and shall be cleaned often enough to ensure that the system will provide the required dose at all times.

4. An accurately calibrated UV intensity sensor, properly filtered to restrict its sensitivity to the 2,500-2,800 Angstrom (250-280 nanometers) germicidal spectrum, shall measure the UV energy from the lamps. There shall be one (1) sensor for each UV lamp.

5. A flow-diversion valve or automatic shut-off valve shall be installed which will permit flow into the potable water lines only when at least the minimum required UV dosage is applied. When power is not being supplied to the unit, the valve shall be in a closed (fail-safe) position which will prevent the flow of water into the potable water lines.

6. An automatic flow control valve, accurate within the expected pressure range, shall be installed to restrict flow to the maximum design flow of the treatment unit so that the entire volume of water receives the minimum dose required above.

7. The materials of construction shall not impart toxic materials into the water either as a result of the presence of toxic constituents in the materials of construction or as a result of physical or chemical changes resulting from exposure to UV energy.

**2009 PMO
APPENDIX D, PAGES 174-177**

V. WATER RECLAIMED FROM MILK AND MILK PRODUCTS AND FROM HEAT EXCHANGERS OR COMPRESSORS IN MILK PLANTS

CATEGORY I. USED FOR POTABLE WATER PURPOSES

3. ~~Water~~ For water reclaimed from milk and milk products, a standard turbidity of less than

five (5) units; or an electrical conductivity (EC) maintained in correlation with an organic content of less than 12 mg/L, as measured by the chemical oxygen demand or permanganate-consumed test. ~~When UV Disinfection per Appendix D is used, a UVT(Ultraviolet Transmittance) analyzer shall be utilized instead and set to a minimum UVT of 85%. ...~~

7. Approved chemicals, such as chlorine, with a suitable detention period, ~~or UV Disinfection~~ **disinfection that complies** ~~in accordance~~ with the criteria in Appendix D may be used to suppress the development of bacterial growth and prevent the development of tastes and odors.

8. ~~The addition of chemicals shall be~~ When chemicals are added, they shall be added by an automatic proportioning device, ~~or, in the case of UV disinfection, an appropriate automatic dose calculation and display,~~ prior to the water entering the storage vessel, to assure satisfactory quality water in the storage vessel at all times.

9. When chemicals are added, a daily testing program for such added chemicals shall be in effect and such chemicals shall not add substances that will prove deleterious to the use of the water or contribute to product contamination. ~~When UV disinfection is used, the automatic dose calculation and display shall be monitored daily. ...~~

CATEGORY II. USED FOR LIMITED PURPOSES

1. There is no carry-over of water from one (1) day to the next, and any water collected is used promptly; or ...

b. The water is treated with a suitable, approved chemical to suppress bacterial propagation by means of an automatic proportioning device, ~~or by a UV disinfection device that complies with~~ **the criteria** ~~in Appendix D, that shall have an appropriate automatic dose calculation and display~~ prior to the water entering the storage tank; or

VI. WATER RECLAIMED FROM HEAT EXCHANGER PROCESSES OR COMPRESSORS ON GRADE "A" DAIRY FARMS

8. Approved chemicals, such as chlorine, with a suitable retention period, ~~or UV disinfection~~ that complies with the criteria in Appendix D may be used to suppress the development of bacterial growth and prevent the development of tastes and odors.

9. When chemicals are added, a monitoring program for such added chemicals shall be in effect and such chemicals shall not add substances that will prove deleterious to the use of the water or contribute to product contamination. ~~When UV disinfection is used, a dose monitoring program shall be in effect.~~