Proposal Subject UV Bulb Change in Recirculating Wet Storage

Specific NSSP Guide Reference NSSP Guide Model Ordinance Chapter X. General Requirements for Dealers .08 Wet Storage in Artificial Bodies of Water C. Water Supply (3) (d)

Text of Proposal/ Requested Action Modify Chapter X.08.C:

.08 Wet Storage in Artificial Bodies of Water.

C. Water Supply.
(1) …
(2) …
(3) …
(a) …
(b) …
(c) …
(d) When ultraviolet treatment is used as the water disinfectant, each time **a bulb change is required either to replace a burned out bulb or for periodic servicing, new ultraviolet bulbs ~~are~~ shall be installed and old bulbs discarded** ~~a set of three samples of disinfected water and one sample of the source water prior to disinfection shall be collected within a 24 hour period to reaffirm the ability of the system to produce water free from the coliform group.~~

Implementation date: If passed by the 2001 ISSC, the effective date for implementation of this issue shall be immediately upon concurrence by the Food and Drug Administration.

Public Health Significance The current requirement in the Model Ordinance to require reverification of system performance following replacement of ultraviolet bulbs is not logical provides no added public health safety and it is an unnecessary burden and expense to place on dealers.

Performing an ultraviolet bulb change only serves to enhance the performance of the disinfection system not degrade it. Certainly with a system that uses a UV bulb inside of quartz sleeves, an operator is likely to clean the quartz sleeve if he has gone to the trouble to remove it to replace the bulb, which will further enhance the performance of the system.

The only public health risk might come from an operator installing old bulbs that still would illuminate but not emit sufficient ultraviolet light. The new language requiring only new bulbs be installed and old ones discarded should address this.

Cost Information (if available) Water samples in Washington State cost $26 each. Each reverification requires for samples be sent for a total of $104. This is a cost incurred by a dealer any time a bulb blows or he changes bulbs in servicing the UV unit (normally annually). Based on this, eliminating this requirement could represent a cost savings of several hundred dollars per year for the dealer and it would free up lab time at the state lab for testing that could be more important to protecting public health.

Action by 2001 Task Force I Recommended adoption of Issue 01-220 as submitted.

Action by 2001 General Assembly Adopted recommendation of 2001 Task Force II.

Action by USFDA Did not concur with Conference action. Recommended Issue 01-220 be returned to appropriate committee for further consideration.

FDA does not concur with Conference action to adopt Issue 01-220. New ultraviolet bulbs (UV) do not always produce the desired level of disinfection even though the bulb is checked and is found to produce the manufactures rated intensity. Following bulb replacement, the

	only way to determine the ability of the UV system to adequately disinfect process water under the conditions of operation is to conduct sampling. Once the ability of the UV system to accomplish the desired result has been verified, additional samples, beyond required weekly samples, are not necessary unless the conditions of operation are modified. UV bulb replacement would qualify as a modification of the conditions under which the efficacy of the UV system was verified. Consequently, system water would need to be tested following bulb replacement
Action by ISSC Executive Board	Recommended referral of Issue 01-220 to appropriate committee as determined by Conference Chairman.
Action by 2003 Depuration/Wet Storage Committee	Recommended adoption of Proposal 01-220 as submitted. Additionally, consider the development of a new proposal that addresses concerns associated with single bulb systems.
Action by 2003 Task Force II	Recommended adoption of Depuration/Wet Storage Committee recommendations on Proposal 01-220.
Action by 2003 General Assembly	Adopted recommendations of 2003 Task Force II.
Action by USFDA	Concurred with Conference Action.
Action by 2005 Post Harvest Processing Committee	Recommended replacing existing language in Chapter X. 08 C (3) (d) as follows: **<u>When multiple tube UV treatment with redundant capacity is used as a water disinfectant, each time a bulb change is required either to replace a burned out bulb or for periodic servicing, new UV bulbs shall be installed and old bulbs discarded.</u>** **<u>When a single tube UV treatment unit or a multi tube unit without redundancy is utilized, each time a bulb change is required either to replace a burned out bulb or for periodic servicing, new UV bulbs shall be installed and old bulbs discarded, a set of three samples of disinfected water and one sample of the source water prior to disinfection shall be collected within a 24 hour period to reaffirm the ability of the system to produce water free from the coliform group. UV systems using either a single tube or multiple-tube unit with no redundancy as their disinfections system may utilize an Authority approved UV wavelength intensity monitoring unit to demonstrate bulb integrity.</u>** **<u>When a UV Authority approved UV wavelength intensity monitoring unit is used to demonstrate bulb integrity, Laboratory verification for fecal coliform testing shall be waived.</u>**
Action by 2005 Task Force II	Recommended adoption of Post Harvest Processing Committee recommendation on Proposal 01-220.
Action by 2005 General Assembly	Adopted recommendation of 2005 Task Force II.
Action by USFDA	Concurred with Conference action.